Stereotype Bias in Selection: A Process Approach

Donald V. Currie

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STEREOTYPE BIAS IN SELECTION: A PROCESS APPROACH

A Thesis
Presented to
the Faculty of the Department of Psychology
Western Kentucky University
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In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Donald V. Currie
March 1979
STEREOTYPE BIAS IN SELECTION: A PROCESS APPROACH

Recommended

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Approved July 27, 1979

Dean of the Graduate College
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Acknowledgements

This study represents the end product of a very long and involved process. To recount the lists of people and hours would take a volume in itself. There are some individuals whose efforts must be highlighted, for without them this page may have never been necessary. I want to thank Dr. Thomas Madron for his critical review of this effort and his support as I was struggling to work through graduate school. I would also like to thank Dr. Larry Hanser for his technical finesse with computers and his knowledge of statistics. The last individual I would like to recognize on this page, Dr. Raymond Mendel, has contributed more to this study than all others in total. His guidance and encouragement have earned him my undying gratitude and admiration. Unfortunately, words alone cannot convey my feelings towards this man. Thank you, Ray.
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STEREOTYPE BIAS IN SELECTION: A PROCESS APPROACH

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March 1979

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Department of Psychology Western Kentucky University

This investigation was to determine if an applicant's sex and the job's sex orientation stereotypes affected the evaluation of applicant information and subsequent selection decision outcomes. Interviewers (N=48) were asked to rate the employment suitability of 49 hypothetical applicants. The results indicated that an interaction of the applicant's sex and job's sex orientation had a marginal affect on the importance weightings in two of the four applicant attribute factors, motivation/ability and personality/appearance. Applicants with equivalent qualifications did not receive comparable employment suitability ratings. Unfair job discrimination was demonstrated by these data. It was concluded that the applicant's sex and the job's sex orientation stereotypes affected the evaluation of applicant attribute information and subsequent selection suitability ratings. Future research advocating a process orientation is suggested.
With the passage of the Civil Rights Act of 1964 the Federal government had taken its first definitive action to require equal treatment of all individuals in matters of employment regardless of their race, religion, sex or national origin. This equality of treatment extends to all forms of personnel decisions (e.g., recruitment, selection, promotion, termination, etc.).

Recently, research has focused on unfair job discrimination based on applicant sex. When persons of equal qualifications have unequal probabilities of selection, promotion, etc., then one has demonstrated a case of unfair job discrimination (Guion, 1966). In other words, men and women with equivalent application and background credentials may not necessarily have equal chances of being selected. One issue which may serve to partially explain why capable individuals are being denied access to employment may be found in the affect that stereotypes have on personnel decisions (Dipboye, Arvey & Terpstra, 1977; Rosen & Jerdee, 1974a; Shaw, 1972).

Mayfield and Carlson (1966) and Webster (1964) conceptualize the decision process in personnel selection
as a matching process between a stereotyped "ideal" candidate and men and women applicants. They refer to stereotypes as a way to collectively represent sets of requirements which are used in the evaluation of applicants. Schein (1973) explains that a stereotype represents a normative expectation on the part of the decision maker as to how a person, place or thing should be. Stereotypes may emerge via social learning, as a result of experience or by the operation of some purely cognitive, information processing mechanism (London & Poplawski, 1976). Little is known about stereotype formation and even less is known about how stereotypes affect personnel decisions (Ilgen & Terborg, 1975; Rosen & Jerdee, 1975a; Schein, 1973).

Overview

The bulk of the literature concerning stereotypes and their affect on personnel decisions has concentrated on the outcome of the personnel decision process. Researchers invite subjects to make decisions based on their own impressions and evaluations of applicant information. Differences in personnel decisions on the basis of sex are assumed to be a function of stereotypes. The stereotypes typically investigated include applicant sex stereotypes and job stereotypes (Cohen & Bunker, 1975; Dipboye, Fromkin & Wiback, 1975). Applicant sex stereo-
types refer to a set of normative expectations which differentiate male and female applicants. Applicant sex stereotypes often depict male applicants as being ambitious, forceful, aggressive, self-confident and objective. Female applicants are depicted as being creative, intuitive, modest, helpful and neat (Schein, 1975). Job stereotypes refer to the sex typing of a position. Schein (1973) describes a position as sex typed when a majority of its incumbents are of a single sex and when there is an associated normative expectation that this is as it should be. A welder's job may be thought of as an example of a male sex "typed" position and a nurse's position as an example of a female sex "typed" job.

In the following discussion the initial focus is on sex stereotypes both of the applicant and the job and how these stereotypes result in unfair discrimination in personnel selection decisions. The second section will present an alternative research strategy to the decision outcome approach, the decision process approach. The relative contributions of the existing outcome approach and the proposed process approach will be discussed. Research which contributes to a process understanding of the stereotype effect is presented. The final section of this discussion will summarize the literature from both the outcome and process approaches to the investigation of the
stereotype effect in personnel selection decisions. This section will suggest future directions which researchers might take in order to add to our present understanding.

**Personnel Decisions Affected by Stereotype Bias**

Although our primary concern is with the affect of stereotypes on selection decisions, stereotypic bias has been identified in an array of other personnel decisions: supervisory performance evaluations (Rosen & Jerdee, 1973; 1974b), compensation determinations (Terborg & Ilgen, 1975), and grievance evaluations (Rosen & Jerdee, 1975b). Without exception each investigator discussed in this section assumed that stereotypes did exist and attributed the differential treatment of men and women in personnel matters to the influence of these stereotypes. Subjects are given applicant information, asked to interpret it, and finally to arrive at some decision concerning the applicant's employment suitability.

Shaw (1972) conceptualized the selection process as a search for "negative" traits that, in an employment context, would have a differential impact on an interviewer's perception of the applicants' qualifications. The sex of the applicant was found to be responsible for the differential hiring rates among applicants. When the applicant was female, interviewers rated the applicant as less acceptable for selection when compared to a male applicant with comparable qualifications. In the case of an applicant trait such as
sex there seems to exist a differential effect which may have as its basis the applicant's perceived qualifications rather than actual qualifications.

Rosen and Jerdee (1974a) see unfair discriminatory decisions against women being based in a set of stereotypic attitudes which depict women as being limited in the toughness, stability, creativity and judgment required to meet the demands of high level managerial positions. They reason that as jobs become more demanding the effect of sex stereotypes should become more evident by the decreased selection rates of women for these positions. It was hypothesized that as positions became more demanding, females, because of stereotypic expectations of their behavior, are perceived as less qualified and are therefore selected less often than male applicants with comparable qualifications. Results indicated that women were rejected more often than men regardless of the situational demands of the job. However, rejection of the female applicant was more probable when the position was more demanding, thus lending support to Rosen and Jerdee's hypothesis.

Cohen and Bunker (1975) work from the premise that unfair discrimination in selection could be a function of both applicant sex stereotypes and job stereotypes. Schein (1973) expressed this same sentiment but Cohen and Bunker were the first to investigate the relevance of allegedly sex
typed occupations to personnel selection decisions. Their results indicate that applicant selectability ratings were not significantly affected by either the applicant's sex or the job's sex orientation: they were affected by an interaction of those two factors. The female applicants were disproportionately more acceptable for the female sex oriented position than they were for the female oriented position. It seems that unfair discrimination can be just as prevalent for male applicants as it is for female applicants. The perceived sex orientation of the position interacting with the sex stereotype of the applicant will result in unfair job discrimination for applicants of either sex.

Dipboye, Wiback and Fromkin (1975) and Dipboye, Arvey and Terpstra (1977) concern themselves with rater characteristics while investigating the effects of stereotypes on selection decisions. Dipboye et al. (1975) found that college students and professional interviewers unfairly discriminated among applicants for managerial positions on the basis of the applicant's sex and attractiveness. Students tended to rate all applicants more favorably. It seems that the training and experience of professional interviewers did not reduce their tendency to unfairly discriminate on the basis of applicant sex and attractiveness. In a later study, Dipboye et al. (1977) found that male and female raters were equally discriminatory in their selection decisions. One may
infer that male and female raters possess similar sex role stereotypes and require similar applicant characteristics since their actual selection decisions were equivalent. Women, as indicated by Dipboye et al. (1977), are just as biased as men when making selection decisions. This would suggest that the placement of more women into positions where they conduct interviews and make employment decisions may not eliminate bias in the selection process.

As a summary of the literature pertaining to the effects of stereotypes on selection, it has been demonstrated that job demand requirements and the sex orientation or "type" of the target position interact with applicant sex stereotypes reducing selection probabilities for sex role incongruent applicants. The affect of sex stereotypes on decisions are consistent with interviewers of either sex: that is, they are equally discriminatory in their selection decisions. Finally, experience and training of professional interviewers appears to have little affect on their tendency to unfairly discriminate on the basis of applicant sex.

A problem inherent in the above research which reviews decision outcomes formulates the question of whether stereotypes affect the decision during the perception of the applicant's qualifications or whether or not the identically perceived applicant's qualifications were subsequently differentially evaluated or weighted? Are equally qualified applicants
really equivalent? Does the BA degree in business mean the same for men and women? This perception and evaluation of applicant qualifications is perhaps the crux of the problem in investigating the affect of stereotypes in personnel decisions (Schein, 1978). We understand that stereotypes do affect personnel decisions yet we do not fully understand how and where this effect is manifest.

A Process Approach to Stereotype Investigation

A significant problem in the literature concerning the effect of stereotypes on personnel decisions has been the general lack of organization in the research efforts of investigators (Schmitt, 1976). Schmitt (1976) presents the most comprehensive review of the literature pertaining to the social and situational determinants of interview decisions. The negative effect of stereotypes has been documented in an array of personnel decisions, but research directed toward a process understanding of this effect has been very limited. The absence of this reasonable extension of research seems to be indicative of the general lack of organization in the sex stereotype literature. It is partly this reason which has led to the proposal of a personnel decision process model.  

This personnel decision process model can be thought of as consisting of three phases: the interviewer's applicant...
Impression Formation (IF) phase, the Impression Evaluation (IE) phase and the Decision phase. The IF phase represents the point in time in the decision process when an interviewer's perception of applicant information results in the formation of an applicant impression. This perception of applicant qualifications is intimately related to the activity engaged in the collection and compilation of applicant information. This activity could include various data gathering techniques from resume reviews to elaborate assessment center activities. The expressed purpose of this phase is to compile applicant data into the form of a distinct applicant impression. The IE phase encompasses the integrative and predictive function of this model. This phase can be represented by an interviewer's clinical integration of applicant data or by some actuarial mode of prediction, such as a regression analysis. The important distinction between the IE and IF phases is that the IE phase deals with the evaluation and interpretation of applicant information rather than simply perceiving this information. The final phase, the Decision phase, represents an operational extension of the IE phase. It seems unlikely that if an applicant were predicted to be unsuccessful at a job that the applicant would be selected. However, there may be some instances (i.e. affirmative action quotas, consent decree rulings, etc.) where the "best" person may not receive the most favorable selection decision. In order to facilitate
the organization of the literature in a more parsimonious and heuristic manner and to reflect the lack of an organized body of literature investigating the link between the IE phase and the Decision phase, the decision process model proposed collapses these two phases. In the course of future research it may be advantageous to expand this decision process model to its original form.

A question which may be asked is what purpose will a decision model serve in the study of stereotype effects? There is a two part response to this question. First, this model will aid in the investigation of stereotypes by helping to classify the literature according to what phase or phases of the model have been investigated. Second, this model directs our attention to the process of a decision rather than the decision as an end in itself. As we begin to understand how selection decisions are made we may begin to understand how stereotypes affect that process and only then how stereotypes affect decision outcomes.

**Similarities of perceptions by raters of applicants and job stereotypes.** The studies in this section are concerned with the first phase of the personnel decision process model, the Impression Formation phase, where applicant characteristics are perceived. This research deals with the stereotypic resemblance of men, women and middle managers.

Schein (1973) proposed that sex role stereotypes may
impede the progress of women into management through the
creation of an occupational sex "typing." In other words,
as a position is populated by members of one sex and as
people begin to believe that this is the way it should be,
then one runs the risk of excluding qualified persons on the
basis of an expectation which may or may not be valid.

Schein's (1973) study compares male managerial decision maker's
stereotypic perceptions of men, women, and successful middle
managers. Results indicated that there was a large and
significant intraclass correlation between the subjects'
descriptive ratings of hypothetical men and managers \( (r' = .62) \),
and there was a nonsignificant correlation of ratings between
hypothetical women and managers. These results tend to
confirm the proposition that successful middle managers are
perceived, at least by males, to possess those characteristics
which are more commonly ascribed to men than to women. To
the extent that any job takes on a male or female sex "type,"
that job perception plus the bias interjected via sex role
stereotypes could result in unfair discrimination against
applicants of either sex.

Schein (1975) in a replication of her 1973 study utilized
a sample of female middle managers. The sample from her 1973
study had been composed entirely of male middle managers.
This study was conducted in order to determine whether female
middle managers perceived men, women, and successful middle
managers any differently than did male middle managers. Results indicated that there was a significant intraclass correlation between the descriptive rating of managers and men ($r' = .54$), and there was also a significant correlation between the descriptive ratings of managers and women ($r' = .30$). The degree of resemblance between managers and women was significantly less, however, than the resemblance between managers and men. Schein interpreted these results as supporting her hypothesis that successful middle managers are perceived to possess those characteristics, attributes, and temperaments more commonly associated with men than women—regardless of the sex of the perceiver. To the extent that this association between sex role stereotypes and requisite sex "typed" management characteristics foster a view of women as being less qualified than men for managerial positions, male managers and also female managers would be inclined to make selection, promotion, and placement decisions biased against women. Schein recognizes the importance of the raters' applicant impression formation to the entire personnel decision process. Her findings indicate that both male and female raters have similar impressions of men and women. Male and female raters perceive a high degree of resemblance between men and successful middle managers and a lower degree of resemblance between women and successful middle managers. The perception of applicant qualifications is
essentially equivalent for male and female interviewers. Applicant impressions formed in the initial stage of the decision process are similar for both men and women raters. The questions which still exist in regard to decision outcomes are do differential decision outcomes result from differential applicant perceptions, from the differential evaluation of similar applicant perceptions, or from a combination of differential perceptions and differential evaluations of applicant qualifications?

Applicant attribute identification and evaluation. The studies in this section are concerned with the second phase of the personnel decision process model, the Impression Evaluation phase, where applicant characteristics are evaluated. The studies in this section investigate the importance or the weighting of various applicant characteristics as they are related to selectability.

Cecil, Paul and Olins (1973) recognized that there was little systematic research directed toward the identification of attributes which were expected of applicants. These researchers were interested in identifying those qualities which are perceived by raters to be important in the evaluation of potential employees. The purpose of this study was to identify the attributes perceived to be of importance in the selection process of male and female applicants.

Fifty items, identified as being most frequently used
to evaluate job applicants, were evaluated to determine their importance in selection. Analysis of importance ratings associated with each of the fifty applicant evaluation items indicated that the items clustered into four factors which roughly translate into (a) a motivation/ability factor, (b) a personality/appearance factor, (c) an interpersonal relations factor and (d) a skill/education factor. Cecil et al. (1973) assert that the motivation/ability and interpersonal relations factors were more important in the selection of male applicants and the personality/appearance and skill/education factors were more important in the selection of female applicants (i.e. differences in selection result from the differential weighting of the applicant factors rather than from their perception). When evaluated, equivalent applicant attributes may be differentially weighted as a function of the sex of the applicant being considered. That is, certain variables used in the assessment process may be perceived to be differentially important depending on the sex of the applicant being considered. Cecil et al. (1973) propose that a male and female applicant with equivalent ratings on the four applicant attribute factors (i.e. attributes which are perceived identically) will not be evaluated as being equivalent by the raters insofar as predicted performance is concerned. The male applicant will be evaluated primarily in terms of his motivation/ability and
interpersonal relations and the female applicant will be evaluated in terms of her personality/appearance and skill/education attributes.

Cecil et al. (1973), with regard to the personnel decision process model, represents a noteworthy effort to investigate the inter-relationship between the applicant's sex, applicant information, and the differential evaluation of that information. Two useful points were established by this study: (a) key applicant attribute factors which appear to form the basis of applicant perceptions were derived and (b) these factors were proposed to be differentially important depending on the sex of the applicant being evaluated.

This section of this discussion focuses on a study conducted by Cohen and Bunker (1975). Though this study was discussed in a prior section, its unique design and analysis set it apart from the decision outcome studies and warrant its discussion in greater length as a decision process investigation.

Cohen and Bunker (1975) demonstrated that hiring decisions were affected by the interaction of the applicant's sex and the job's sex orientation. A rater's perception of the applicant's attributes as measured by a semantic differential was not affected by the job's sex orientation. The rater's perception of the applicant's attributes was affected by the applicant's sex. The female applicant was described as being
significantly more confident, consistent, friendly, interesting and wiser than the male applicant. There was only one significant applicant's sex by job's sex orientation interaction effect, the male applicant applying for the female oriented position and the female applicant applying for the male oriented position were described as being more competitive than those applicants applying for positions which were consistent with their sex roles.

These results indicate that raters did perceive differences between male and female applicants on the basis of interaction between the applicant's sex and the job's sex orientation, and the hiring decisions were influenced by this interaction. In an attempt to more precisely delineate the relationship between these differential perceptions of applicants and the hiring decisions criterion, analyses were performed on all semantic differential items using the hiring decision as the dependent measure. By collapsing the experimental conditions it was possible to identify those attributes which were related to success for the sex congruent and sex incongruent applicant. Their results indicated that individuals applying for a sex role inconsistent position must be perceived to be more qualified in a task-oriented sense to be hired than those applying for a position which would be sex role consistent. This task orientation is illustrated by applicant traits such as competitive, competent
and experienced. Cohen and Bunker describe these significant role incongruent applicant traits as representative of a "knowledge, ability and ambition" factor. A review of the significant attributions of the role congruent applicant reflects a "warmth, likeability and reliability" factor, perhaps more indicative of a socio-emotional orientation.

Stereotypes are responsible for differential impressions of applicant attributes and this differentiation is reflected in an unfair discrimination for both men and women. A problem which exists in this investigation, as it has in the investigations discussed before the presentation of the decision process model, pertains to the linking of applicant information to a differential decision outcome. In each case applicant information was "equal" with an exception of the applicant's sex. It has been proposed by Shaw (1972) and others that the sex of the applicant may enter into the decision process as a negative trait that alters the very perception of an applicant's actual qualifications. Cohen and Bunker (1975) with their semantic differential measures have demonstrated that those differential impressions based on the applicant's sex do indeed exist. If as the results suggest, the female applicant was perceived as being more confident, consistent, friendly, etc., why was she not consistently hired over the male candidate? Perhaps the evaluation of those impressions, as distinct from the mere perception of these impressions,
may provide some insight into the resulting differential decisions. The perception and evaluation of applicant qualifications have always been treated as a single step in the decision process. Perhaps by investigating both the perception and the evaluation of applicant qualifications as they are related to selection decisions, we will gain a better understanding of the mechanism by which bias is introduced through stereotyping.

The problematic question which is the focus of this investigation asks: does the importance or evaluation of (as distinct from the mere perception of) applicant attributes vary as a function of the applicant's sex and/or job's sex orientation, and if so do these differences bias selection decision outcomes? In order to investigate this problem it becomes necessary to define what applicant attributes are generally important in selection.

Cohen and Bunker (1975) and Cecil, Paul and Olins (1973) both represent studies which have identified factors which are of major importance when evaluating job applicants. Further, both studies indicate that the perceived importance of these applicant attributes is mediated by conditions in the selection situation. Cecil et al. (1973) propose that the sex of the applicant is largely responsible for the differences in the importance of factors used in the evaluation of applicants. They identify four factors which may be differ-
entially critical in the evaluation of male and female applicants. It is their contention that when a male applicant is being evaluated for selection, the applicant's attributes of motivation/ability and interpersonal relations are most important. When a female is evaluated for selection, the applicant's attributes of skill/education and personality/appearance are most important. These relationships, between the sex of the applicant and the importance of the attribute factors, hold, the authors argue, regardless of the sex orientation of the target position. Cohen and Bunker (1975), on the other hand, contend that the sex of the applicant and the job's sex orientation are conjunctively responsible for the differential hiring rate among men and women. Cohen and Bunker report that applicants for sex congruent positions met with greater success if they were perceived to display a "warmth, likeability and reliability" factor. Success among the applicant for the sex incongruent position was related to the display of a "knowledge, ability and ambition" factor.

In sum it can be said that some important applicant attribute factors in the selection process have been identified by both Cecil et al. (1973) and Cohen and Bunker (1975). There is some agreement in the identification of applicant attributes in both of these investigations. The importance of these applicant attributes to selection apparently varies depending on the applicant sex and/or job sex orientation.
In regard to the personnel decision process model, the discrepant findings of these two studies only reinforces the need to investigate the development of applicant impressions and the evaluation of those impressions if we intend to understand how stereotypes affect personnel selection decisions.
Statement of Problem

The purpose of this investigation is to determine if the importance or evaluation of (as distinct from the mere perception of) applicant attributes vary as a function of the applicant's sex and/or the job's sex orientation, and if so do these differences bias selection decision outcomes? It is hypothesized that applicant attribute information will be differentially evaluated or weighted as a function of the applicant's sex and the job's sex orientation interaction. It is also hypothesized that the selection decision outcomes will also be differentially affected by this interaction of factors.
Method

Overview

Subjects were asked to evaluate hypothetical applicants and rate them on their suitability for selection. Applicant information was presented in the form of a profile of four salient applicant requirements. Subjects utilized these applicant profile stimuli along with applicant sex information and job information in making their selection decisions.

Subjects

Subjects were 48 male employees of a large Midwestern city. Their ages ranged from 22 to 69 years with a mean of 44.6. They were representatives of that city's various operating sections (i.e. Health and Hospital Division, Water Department, Assessor's Office, etc.). All subjects had experience in the decision making process involved in the selection of new employees for their own operating section. These employees were randomly assigned to one of four experimental conditions.

Experiment Design

The design was a 2x2x49 Split Plot Factorial with repeated measures on the last factor. The design factors were the sex of the hypothetical applicants being considered
(male/female) and the sex orientation of the position in question (male/female). Subjects' suitability judgments of the 49 hypothetical applicant profiles represent the repeated measures. Subject assignment to one of the four experimental conditions constituted a nested factor.

**Stimulus Profiles**

Forty-nine profiles, each descriptive of a hypothetical job applicant, were generated according to a procedure outlined by Dickinson and Wijting (1976). The factors identified by Cecil et al. (1973) were used to describe the salient applicant attributes to be used in the selection decisions; they were (a) motivation/ability, (b) personality/appearance, (c) interpersonal relations and (d) skill/education. In order to produce realistic job applicant profiles it was necessary to estimate the relationships among these factors as they would be manifest in a general applicant population. A panel of judges each generated an estimated matrix of correlations among the four applicant attributes or factors. The median correlation among the four factors was computed based on the estimates of the nine judges. In addition to the intercorrelation matrix, means and standard deviation parameters had to be specified for the generation of applicant profile stimuli. The mean was set at 5.0 and the standard deviation was set at 2.0 (stanines). This yielded hypothetical applicant attribute profile ratings ranging
from one to nine.

**Job-Sex Orientation Manipulation**

A one page description of the job activities required for one of the two jobs was presented to the subjects. The two jobs selected conform to the criteria established by Cohen and Bunker (1975, p. 567).

1. The jobs had to connote sex role orientations. The extent of that orientation was determined by the male to female incumbent ratio for that job.

2. The job had to be perceived as being of equal status and responsibility. Satisfaction of these criteria was accomplished by the purposeful "tailoring" of the job descriptions to intimate an equality in status and responsibility.

3. The position could not be blatantly sex oriented because that could sensitize subjects to the purpose of this study and subsequently reduce variance in the selectability ratings.

As a precaution a pilot investigation was conducted to insure that the perceived differential job sex connotation did, in fact, exist. A sample of 20 employees from this Midwestern city were supplied with job descriptions of two positions, Occupational Therapist and Systems Analyst, and were asked to indicate which sex was more appropriate for each of the two positions. A significant $\chi^2(1) = 8.818$, $p < .01$, indicated the existence of a job sex stereotype for
these positions. Females were evaluated as more appropriate for the position of Occupational Therapist and males were evaluated as more appropriate for the position of Systems Analyst.

**Procedure**

Each of the 48 subjects completed 49 hypothetical applicant ratings. Each subject was provided a booklet containing a job description, either Systems Analyst (male) or Occupational Therapist (female), and 49 hypothetical applicant profiles. The sex of the hypothetical applicant was established by identifying each hypothetical applicant profile with either a masculine (e.g. Robert) or feminine (e.g. Mary) name. The scale points along the four applicant information profile factors were defined using a modified Behaviorally Anchored Rating Scale (BARS) format. The scale anchors were defined in this manner in order to make the applicant profile scores more meaningful to the raters (see Appendix A). After all materials were distributed the following instructions were read (see Appendix B). After all raters completed the rating task the following debriefing statement was read (see Appendix C).

**Analyses**

The analyses of the data focus on both the outcome of the raters' decisions and the process by which their decisions were rendered. The study of stereotype effects were investi-
gated in both the applicants' suitability ratings and in the raters' applicant evaluation policies. Analyses of decision outcomes address the question are suitability ratings affected by the applicant's sex, the job's sex orientation and the hypothetical applicant information? Analyses concerning the decision process focus on the evaluation of applicant information relative to overall applicant suitability and whether the evaluation of applicant information is differentially affected by the applicant's sex and the job's sex orientation.

Analyses of the data were performed in three stages. Analysis in stage one pertains to a decision outcome, analyses in stages two and three pertain to the decision process. The first stage required the hypothetical applicant suitability ratings be submitted to a 2x2x49 analysis of variance (ANOVA). This was done to determine if the sex of the applicant, the job's sex orientation and the hypothetical applicant information affected the hypothetical applicants' suitability ratings (i.e., an outcome focus). The second stage of analysis required the hypothetical applicants' suitability ratings be regressed on the hypothetical applicants' attribute profiles. Two different regression analyses were performed on the data. The first regression analysis required all raters' applicant suitability ratings be regressed on their attribute information scores. This regression was conducted across all 49 raters. The resulting omnibus $F$ provides a
test of the significance of the variance accounted for by the hypothetical applicants' attribute information profiles in the rating of hypothetical applicant selection suitability. In other words, a significant $F$ here indicates that the raters did as a group systematically use the stimulus profiles to determine the suitability for hire of each applicant. Univariate $F$ tests on the betas for each of the four attribute profile factors were then computed. These univariate $F$ tests assessed the unique contribution of each factor constituting the hypothetical applicant attribute information profile in determining the hypothetical applicant suitability ratings. The second regression analyses performed on the data required each rater's hypothetical applicants suitability ratings be regressed on the hypothetical applicants' attribute information scores. A separated regression analysis was thus performed for each of the 48 raters. Individual rater regression analyses provided a subject by subject determination of the importance of the factors constituting the applicants' attribute profile. The resulting standardized beta weights for each factor computed for each rater's series of ratings represented that rater's decision policy and served as input data for the final stage of analysis. A $2 \times 2$ analysis of variance (ANOVA) was then performed on the raters' decision policies, the betas obtained from the previous analyses provide input to this ANOVA. These analyses
were performed to determine if the importance of each of the profile factors was affected by the applicant's sex, by the job's sex orientation, or by their interaction.
Results

An analysis of variance of applicant suitability ratings (see Table 1) indicated that applicant attribute information was the only source that significantly affected the applicant ratings. Table 1 also shows that the sex of applicant, the sex orientation of the job and the applicant sex by job sex orientation interaction were all nonsignificant. Differences in the applicants' suitability ratings were not a function of the applicant's sex, the job's sex orientation or an interaction of these sources. Differences in applicant ratings could only be attributed to the applicants' own profile of attribute information, i.e. their apparent qualifications.

Table 1

Analysis of Variance of Applicant Suitability Ratings

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
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<td>.006</td>
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<tr>
<td>Sex of Job (B)</td>
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<td>A x B</td>
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<td>.164</td>
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<td>Error</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Applicant Attribute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information (C)</td>
<td>48</td>
<td>209.494***</td>
</tr>
<tr>
<td>A x C</td>
<td>48</td>
<td>1.124</td>
</tr>
<tr>
<td>B x C</td>
<td>48</td>
<td>1.067</td>
</tr>
<tr>
<td>A x B x C</td>
<td>48</td>
<td>.992</td>
</tr>
<tr>
<td>Error</td>
<td>2112</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2351</td>
<td></td>
</tr>
</tbody>
</table>

*** p<.001
Regression of the applicants' suitability ratings on the applicant attribute information profile scores indicated, as one would expect based on the analysis of variance, that applicant information was highly predictive of applicant suitability ratings $F(4,2347) = 1653.1, p < .001, R^2 = .74$. Analyses of the unstandardized regression coefficients to determine the contribution of each of the applicant attribute factors indicated that each factor significantly contributed to the overall prediction equation. Table 2 shows the significance of each applicant factor to the overall prediction equation when summed across the four experimental conditions. The standardized beta weights reported in Table 2 reflect the relative importance of each factor in the prediction of the applicant's suitability rating. It can be seen that the order of factor importance from most to least was motivation/ability, interpersonal relations, skill/education and personality/appearance.

A multivariate analyses of variance performed on the raters' policies (i.e. their four applicant attribute importance weightings) with respect to the influence of the applicant's sex, the job's sex orientation and the interaction of those two sources indicated that two factors approached significance. The interaction of the applicant's sex and the job's sex orientation approached significance.
Table 2

Summary of Applicant Attribute Information

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Profile</td>
<td>4</td>
<td>1653.1</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>motivation/ability</td>
<td>1</td>
<td>274.6</td>
<td>.001</td>
<td>.315</td>
</tr>
<tr>
<td>personality/appearance</td>
<td>1</td>
<td>153.7</td>
<td>.001</td>
<td>.190</td>
</tr>
<tr>
<td>interpersonal relations</td>
<td>1</td>
<td>372.0</td>
<td>.001</td>
<td>.301</td>
</tr>
<tr>
<td>skill/education</td>
<td>1</td>
<td>232.2</td>
<td>.001</td>
<td>.246</td>
</tr>
<tr>
<td>Residual</td>
<td>2347</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2351</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

for the motivation/ability factor $F(1,44) = 3.21, p < .08$

and for the personality/appearance factor $F(1,44) = 3.61, p < .06$. Plotting group means graphically helped define the directionality of the interactions. The importance of the applicants' motivation/ability score was greater for the applicant applying for the position which was consistent with the applicant's sex than for the applicant applying for the position which was not consistent with his/her sex. That is, the importance of the motivation/ability score was greater when the male applicant was applying for the male oriented position and when the female applicant was applying for the female oriented position than for the male applicant applying for the female oriented position and the female applying for the male oriented position. Conversely, the importance of the applicants' personality/appearance score
was greater for the applicant applying for the position which was inconsistent with the applicant's sex than for the applicant applying for the position which was consistent with the applicant's sex. The lack of any significant design effects for the interpersonal relations and skill/education factors indicates that these factors were equally important regardless of the sex of the applicant or the sex orientation of the position for which he or she is applying. Table 3 summarizes the analyses conducted with the applicant attribute information factors.
Table 3
Summary of F Values of the Applicant

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Df</th>
<th>F (Motivation/Ability)</th>
<th>F (Personality/Appearance)</th>
<th>F (Interpersonal Relations)</th>
<th>F (Skill/Education)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant Sex (A)</td>
<td>1</td>
<td>3.01</td>
<td>.72</td>
<td>2.90</td>
<td>.53</td>
</tr>
<tr>
<td>Sex of Job (B)</td>
<td>1</td>
<td>.20</td>
<td>.43</td>
<td>1.29</td>
<td>.09</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>3.21*</td>
<td>3.61**</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .08

**p < .06
Discussion

The primary hypothesis of this investigation that particular applicant attributes will vary in their importance as a function of the interaction of the applicant's sex and the job's sex orientation did receive marginal support. The secondary hypothesis that selection decisions are influenced by the interaction of the applicant's sex and the job's sex orientation was not supported. Additional information on the two profile factors, the importance of which were affected by the interaction of the applicant sex by job sex orientation, and possible explanations for the lack of support for the secondary hypothesis is provided. Additionally, overall rater's decision policies are discussed in order to elaborate on the differential importance of applicant attribute information. Finally, implications for future research in this area are noted.

Selection Decisions

The selection decisions of the raters did not demonstrate that male and female applicants with identical qualifications were being unfairly discriminated against, as one would expect based on the weight of the literature reporting the differential treatment of male and female applicants.
These results, although not expected, may be in part explained by (a) the role that stereotypes may have in the formation of applicant impressions and (b) an experimental manipulation problem.

**Role of stereotypes.** Stereotypes influence personnel decisions most when little is known about an applicant's potential, while the effects of sex stereotypes diminish as more information about the worker is obtained (Terborg & Ilgen, 1975). Katz in Rosen and Jerdee (1975a) suggests that attitudes or stereotypes provide a framework for order and clarity in a complex world. As uncertainty in a situation occurs, information either from another source or in the form of a personal stereotype is relied on by the perceiver in order to relieve that uncertainty. Perhaps the bias in the applicant employment suitability ratings which one would have expected as a result of sex role stereotypes was suppressed by the mode of presentation of the applicant information. Information in profile form presented about each applicant with its accompanying BARS descriptors and job description may have provided enough structure for the raters so as to diminish the propensity to rely on stereotypes as to the relative employment value of men and women. A line of research which represents a very analogous situation to the one above pertains to the reliability of interviewer ratings of applicants' suitability for employment.
given varying amount of job information. It was found that as the structure of the position became more defined the inter-rater agreement of applicant suitability of employment became more consistent (Langdale & Weitz, 1973). It seems that just as interviewers need a well defined job description, they also need a complete and accurate portrayal of applicant information if their selection decisions are going to remain unaffected by stereotype bias.

Experimental manipulation. A second explanation for the apparent absense of sex bias in the employment suitability ratings stems from a possible weakness in the experimental manipulation. The manipulation which is of concern is that of the hypothetical applicants' sex. The sex of the hypothetical applicants was indicated by assigning each hypothetical applicant a male name (e.g. John) or female name (e.g. Mary) which appeared in the upper right hand corner of each applicant's profile rating form (see Appendix D). Concern about the efficacy of this manipulation arose when several subjects related to the researcher that several hypothetical applicant names such as Pat, Jan and Bobby could indicate either male or female applicants, thereby obscuring the sex of the hypothetical applicant. Moreover, a few subjects also informed the researcher that they had not been aware of the sex of the applicants they had been evaluating. They had failed to attend to the
applicants' names when responding to the profiles. Clearly, to the extent subjects were not aware of the applicants' sex, one could not expect sex differences in the suitability ratings. However, the marginally significant interaction effect of applicant sex by job sex orientation in two of the four profile factors indicates that the applicant sex manipulation did succeed to some extent. The significant interaction does indicate that the applicant sex manipulation was somewhat effective, but the reaction of the raters also indicates that a better method than the one utilized should be used to establish the sex of the hypothetical applicants. From a practical standpoint, in a selection interview situation when a decision maker is confronted by an actual applicant, the sex of that individual is typically quite evident! In this case, decisions may exhibit substantial unfair job discrimination which may have been lacking in the present simulation of an interview situation.

**Differentially Important Profile Information Factors**

Analysis of the raters' decision policies indicated that the relative importance of the hypothetical applicant profile factors of motivation/ability and personality/appearance in determining applicants' employment suitability was dependent on the interaction of the applicant's sex and the job's sex orientation. In the determination of overall applicant employment suitability the profile factors of
motivation/ability and personality/appearance resulted in
differential applicant evaluations. Male and female appli-
cants with equivalent scale ratings or scores on the motiva-
tion/ability and personality/appearance factors applying
for the same male or female sex oriented position will not
have equivalent employment suitability evaluations.

The hypothetical data in Table 4 is intended to help
illustrate several important points in this investigation.
The data depicted in this table represent the relationship
of the findings as they exist in the actual data. This
tabular representation will aid the explanation of this
investigation's findings. In the table it can be seen
that the mean suitability rating in each of the four experi-
mental conditions are equal. This equality of these mean
ratings is due to the counterbalancing of male and female
profile stimuli. An ANOVA of these ratings would fail to
find any evidence of stereotype bias as was the case in this
study. Stereotype bias may be evidenced however by the
comparison of suitability ratings of applicants displaying
equal applicant profile scores (e.g. Mary and Bob). These
individuals possess identical profiles, however, differences
in the importance of the two profile factors results in
differential employment suitability ratings.

One may generate some rather interesting propositions
from these results: (a) To the extent that there is a nor-
### Table 4

Representative Scale Scores and Suitability Ratings

<table>
<thead>
<tr>
<th>Hypothetical Applicant</th>
<th>Motivation/Ability</th>
<th>Personality/Appearance</th>
<th>Scale Score</th>
<th>Suitability Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mary</td>
<td>9</td>
<td>3</td>
<td>.4(9) + .6(3) = 5.4</td>
<td>.6(9) + .4(3) = 6.6</td>
</tr>
<tr>
<td>Sally</td>
<td>7</td>
<td>5</td>
<td>.4(7) + .6(5) = 5.8</td>
<td>.6(7) + .4(5) = 6.2</td>
</tr>
<tr>
<td>Jane</td>
<td>5</td>
<td>7</td>
<td>.4(5) + .6(7) = 6.2</td>
<td>.6(5) + .4(7) = 5.8</td>
</tr>
<tr>
<td>Phyllis</td>
<td>3</td>
<td>9</td>
<td>.4(3) + .6(9) = 6.6</td>
<td>.6(3) + .4(9) = 5.4</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bob</td>
<td>9</td>
<td>3</td>
<td>.6(9) + .4(3) = 6.6</td>
<td>.4(9) + .6(3) = 5.4</td>
</tr>
<tr>
<td>Same</td>
<td>7</td>
<td>5</td>
<td>.6(7) + .4(5) = 6.2</td>
<td>.4(7) + .6(5) = 5.8</td>
</tr>
<tr>
<td>Don</td>
<td>5</td>
<td>7</td>
<td>.6(5) + .4(7) = 5.8</td>
<td>.4(5) + .6(7) = 6.2</td>
</tr>
<tr>
<td>Ray</td>
<td>3</td>
<td>9</td>
<td>.6(3) + .4(9) = 5.4</td>
<td>.4(3) + .6(9) = 6.6</td>
</tr>
</tbody>
</table>

\( \overline{x} = 6.0 \)

\( \overline{x} = 6.0 \)
mative expectation that men are motivated and competent
and that females are attractive and socio-emotional, these
expectations may work in favor of male and female appli-
cants applying for a traditionally male-oriented position.
(b) Women, in order to gain entry to a male oriented posi-
tion, must look their best. For that matter, the most appro-
priate manner of self presentation will change for each of
the selection contexts. The male applying for the male orien-
ted position should give careful consideration to portray
himself as the eager, motivated and competent type of indivi-
dual. This is also true for the female applying for the
female sex oriented position. In terms of personality/
appearance, this applicant attribute takes on less impor-
tance in the determination of applicant employment suitabil-
ity in these selection contexts. When a male applies for
a female oriented position and likewise when a female appli-
cant applies for a male oriented position careful considera-
tion should be given to making one's self appear attractive,
pleasant and capable of fitting in well to the work situ-
ation. An applicant's attribute of motivation/ability takes
on a relatively less important role in this selection con-
text (less important meaning that it does not contribute as
much to the employment suitability rating). It would be
better to concentrate on physical appearance and appearing
to get along well with others than in trying to impress
people with what you know in this situation. (c) If you want to find an attractive, well adjusted female try Wall Street (i.e., good looks gets a female into this traditionally male job market)! If these results generalize to the general population then a disproportionate number of females in traditionally male oriented positions should be physically attractive and have pleasant personalities!

Historically, these applicant attribute areas have been shown to both contribute heavily to interviewer decisions and show the greatest evidence of validity (Ulrich & Trumbo, 1965). The point is that in the overall determination of applicant employment suitability, the applicant attributes of motivation/ability and personality/appearance are important because they account for a significant portion of the variance in employment suitability ratings. The problem now is that the importance has been shown here to be moderated by the interaction of the applicant sex and the job sex stereotype.

**Applicant Information Recommendations**

From the analyses of the overall raters' decision policies, it can be said that male and female applicants with equivalent evaluations of the four applicant attributes—motivation/ability, personality/appearance, interpersonal relations and skill/education—will not have equivalent ratings in terms of their employment suitability. With
respect to the two applicant attributes of interpersonal relations and skill/education, the importance of these factors remains basically constant across selection contexts. This was indicated by the lack of any significant applicant sex and job sex orientation effects in their importance weightings. From a practical point of view, male and female applicants with comparable interpersonal relations and skill/education attribute rating scores should be judged as having equivalent employment suitability ratings, regardless of the job sex orientation. It was found that the importance of the applicant attribute factors of motivation/ability and personality/appearance was affected by the interaction of the applicant sex and the job sex orientation of the position. When male and female applicants apply for positions which are consistent with their sex roles the applicant attribute factor of motivation/ability is of relatively greater importance than that of personality/appearance in determining judged employment suitability. However, it is especially interesting to note, since there has been a movement to bring women into traditionally male oriented professions, that the relative importance of the personality/appearance factor is greater than the motivation/ability factor when evaluating the employment suitability of females for a male oriented position. This indicates that interviewers may tend to believe it is more important for
females to be attractive and able to adjust to the male oriented position than it is to be motivated or competent. This point is also true of the male applying for the traditionally female oriented position. Although these statements are based on marginally significant findings the hypothetical nature of the task probably represents a conservative estimate of the magnitude of the effect as it exists in an actual selection situation.

Implications

Selection decisions have been characterized as the end product of a two step process, the compilation of applicant information and the evaluation of that information. Studying selection decisions via this process model was proposed in order to gain a better understanding of how stereotypes affect that process. The literature in the past has not been directed toward a process understanding of the stereotype effect in personnel decision. The focus of this study has been on the second phase of this process model, the Impression Evaluation (IE) phase. Stereotypes held by the raters of applicant sex and the job sex orientation did not adversely affect the applicant suitability ratings. However, these stereotypes did affect the importance weighting of the four applicant attribute factors. This demonstrated that stereotypes did indeed affect employment decisions via the applicant evaluation phase of our process model of personnel
decisions.

This investigation demonstrated that stereotypes did affect decisions through the evaluation of applicant information. This was true for male interviewers. In the evaluation of applicant information will female interviewers exhibit the same bias? If so, will these biases manifest themselves in the same differentiation in importance of the applicant attribute factors? Will the magnitude of importance of the applicant information be the same for male and female interviewers? In an investigation of the perception of applicant attributes, will equivalent applicant credentials be perceived to be equivalent? Will the subjectivity of applicant information increase the effect of stereotypes thereby altering the perceptions of applicant qualifications?

In this study we were interested in investigating the effects of stereotypes on the employment suitability ratings of equivalent hypothetical applicants. Our findings were that the applicants' employment suitability ratings were affected by the evaluation of the applicants' profile factor scores. Differences in the importance of the attribute factors were related to the interaction of the applicant's sex and the job's sex orientation. If in reality male and females are not "perceived" to be equivalent then our findings may have a totally different interpretation.
If equivalent applicant information factor scores are not perceived to be equivalent in the real world sense then these findings may take on some other meaning. Unfortunately this issue is not addressed in this investigation but it does play a significant role in the study of stereotype effects in the personnel decision process.

The questions could go on, what has hopefully been demonstrated is that the decision process model does provide a series of research questions that when answered aid in our understanding of how stereotypes affect the personnel decision process. The findings of this study are encouraging for two reasons: (a) they define a link between the evaluation of applicant information and a personnel decision which was biased by the interaction of the applicant's sex and the job's sex orientation and (b) they show that it is possible to investigate the various stages of the decision process. Both of these points are significant in that they point to the utility of the process model proposed and the need for further research to more fully comprehend the nature of sex bias in the personnel decision process.
Appendix A

APPLICANT ATTRIBUTE DESCRIPTIONS

MOTIVATION/ABILITY  Job applicants must be self motivated and have the ability to think clearly under stressful conditions.

Representative behaviors associated to the applicant ratings of the MOTIVATION/ABILITY attribute.

An applicant rating of "9" would indicate that this applicant could be expected to have a detailed plan for future advancement. This individual might also be found working days off. This person might also be very ego involved when working.

An applicant rating of "5" would indicate that this applicant could be expected to have prepared a neatly typed resume and arrive early for the interview. This person might also have plans to continue his or her education. This individual may admit to being the 8:00 a.m. to 5:00 p.m. type of employee.

An applicant rating of "1" would indicate that this applicant could be expected to arrive late for the interview. This person might also be the type to finish a four year degree program in six years.
Appendix A (con.)

PERSONALITY/APPEARANCE  Job applicants must present a reasonable personal appearance; possess a voice of pleasing quality, strength, and clarity; and be "lively" and responsive. Job applicants must show no unusual lack of poise. Representative behaviors associated to the applicant ratings of the PERSONALITY/APPEARANCE attribute.

An applicant rating of "9" would indicate that this applicant could be expected to appear very self assured but very aware of personal strengths and weaknesses.

An applicant rating of "5" would indicate that this applicant could be expected to wear a set of clean clothing and speak in a clear distinctive tone to interviewers. This person would also remain composed if confronted with some need for explanation.

An applicant rating of "1" would indicate that this applicant could be expected to come to the interview improperly dressed and have a distinct body odor. During the interview the applicant could be expected to mumble responses and become hostile if questioned about inconsistencies in application information.
INTERPERSONAL RELATIONS  Job applicants must be "listeners" who are tolerant of other people with differing views. He/She must also have the ability to accept criticism. Representative behaviors associated to the applicant ratings of the INTERPERSONAL RELATIONS attribute.

An applicant rating of "9" would indicate that this applicant could be expected to develop an empathetic relationship with the interviewers. Additionally, this person would be very tolerant of differing opinions expressed by the interviewers.

An applicant rating of "5" would indicate that this applicant could be expected to be the type of individual who would "chip" in a buck for someone's retirement gift. This person would also tend to be friendly.

An applicant rating of "1" would indicate that this applicant could be expected to be uncooperative or inattentive during the interview session. If this person were confronted with questions about his or her qualifications this person might storm out of the interview. This person might be very self-effacing and shy if in the company of strangers.
SKILL/EDUCATION  Job applicants must be knowledgeable of
correct supervisory practices. He/She must also possess
adequate computational skills.
Representative behaviors associated to the applicant ratings
of the SKILL/EDUCATION attribute.

An applicant rating of "9" would indicate
that this applicant could be expected to have a
9 good work background and could give an in-depth
accounting for those duties and responsibilities.
This person could be expected to have completed a
Master's degree in an area related directly to
this profession.

An applicant rating of "5" would indicate
that this applicant could be expected to have some
related job experience of some supervisory experi-
ence. This person would be expected to need some
supplementary job training.

An applicant rating of "1" would indicate
that this applicant could be expected to either
have no experience at this type of position or if
questioned about that experience becomes very
evasive.
Appendix B

Before we begin I would like to thank all of you for participating in this project. We have asked you together to help determine the critical requirements which are sought in a job applicant.

Researchers from the University of Missouri at Columbia's business school have found that there are four areas which are frequently of particular interest when evaluating a job applicant. They are the applicant's attributes of motivation/ability, personality/appearance, interpersonal relations and skill/education.

The question which we have sought to answer asks how important are these attributes when it comes to making a selection decision. We are interested in the extent to which these attributes both individually and in combination affect the decision made in a selection situation.

We are asking you to make some decisions regarding the employment suitability of 49 hypothetical job applicants. These hypothetical applicants possess varying degrees of these four important attributes. Some of these individuals possess a very favorable rating on all attributes and others possess very unfavorable ratings. A majority of the applicants, however, fall in the range between the two extremes, much like they do in reality. Each applicant's attribute ratings or profile will be represented on a sheet identical
Appendix B (con.)

to this enlargement. You'll notice how each attribute is presented as a pictoral display of that applicant's rating. Your task will be to evaluate each applicant's suitability for selection and indicate your decision on the rating scale at the bottom of each hypothetical applicant's profile rating sheet. To assist you in your decisions we have prepared descriptions of each of the four attributes. We have defined in terms of actual applicant behavior three of the rating points for each of the four applicant attributes. To further aid you in this task we have prepared a job description for the position which your sample of applicants have applied. Because the information which is presented is so much an important part of the project we ask you to carefully look at each attribute rating profile and try to think of what a person might be like if that person were to have ratings like those as a profile. Based on your evaluation of the applicant and the job for which these applicants are applying, would you assess each applicant's suitability for selection.

It is hoped through our analysis to determine how each of you use this information in making a selection decision. Based on a previous study it was determined that the optimal assessment time per applicant was 20 seconds and the whole task should take no longer than 25 minutes. These steps should be helpful. First, examine each of the attribute descriptions
Appendix B (con.)

and the accompanying scale anchors. Second, read and study
the job description enclosed under the front cover of the
rating booklet, and then proceed to rate each of the 49
hypothetical applicants as to their suitability for selection.
Again, be sure to base this selection decision on the appli-
cant attribute information presented in each profile.
Appendix C

It has been found that interviewers frequently evaluate the same applicant information quite differently depending on the applicant's sex. Usually a female applicant with male equivalent qualifications will be evaluated less favorably than her male counterpart. Additionally, jobs themselves have been shown to have a sex role connotation which may have an adverse affect on the selection of females applying for positions which have been traditionally held by men and on males applying for traditionally female jobs. This investigation goes beyond the question of sex discrimination against females and addresses the problem which has applicants of both sexes being systematically excluded from positions which would be inconsistent with their sex roles, such as the female bricklayer or the male nurse. This investigation will help determine the extent to which male and female stereotype bias enters into these selection decisions. Our approach has been to have each of you evaluate either male or female hypothetical applicants for either a traditionally male or female sex oriented position. Analyses of these data should help clarify how applicant attribute information, the sex of the applicant and job information are used in the selection decision process.

This project is a part of a continuing effort by the Research and Development section of the Department of Per-
Appendix C (con.)

sonnel to carefully examine what is being done in its selec-
tion processes. This project is being conducted to help
insure that our selection decisions are made in accordance
with Merit System principles and the Equal Employment Oppor-
tunity Commission Selection Guidelines. We wish to re-empha-
size that we are interested in a realistic problem that may
manifest itself in all interviewers and we hope that these
data may provide some suggestions to lessen the effects of
sex bias in selection decisions.
Appendix D

ORAL BOARD

HYPOTHETICAL APPLICANT # 1

(Applicant Name)

REFER TO ATTACHED SHEET FOR DESCRIPTION OF APPLICANT ATTRIBUTES

<table>
<thead>
<tr>
<th>APPLICANT ATTRIBUTE</th>
<th>Very Low</th>
<th>Low</th>
<th>Average</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTIVATION/ABILITY</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXX 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONALITY/APPEARANCE</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXX 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERPERSONAL RELATIONS</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXX 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKILL/EDUCATION</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the above hypothetical applicant profile, please circle your rating of OVERALL APPLICANT SUITABILITY FOR SELECTION using the following scale:

<table>
<thead>
<tr>
<th>Highly Unsuitable would not hire</th>
<th>Moderately Suitable 50% chance</th>
<th>Highly Suitable would hire</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 10 20 30 40 50 60 70 80 90 100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

55
References


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Montreal: Industrial Relations Center, McGill University, 1964.