Person Perception and the Employment Interview: The Impact of Facial Features in the Employee Selection Process

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PERSON PERCEPTION AND THE EMPLOYMENT INTERVIEW: 
THE IMPACT OF FACIAL FEATURES IN THE EMPLOYEE SELECTION PROCESS

BY

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THESIS

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ABSTRACT

Previous research has found that the structural makeup of the face influences the manner by which individuals perceive others and attribute characteristics to them. In addition, support has been provided for the hypothesis that nonverbal cues significantly influence an interviewer’s perception of a job candidate and the pending hiring decision. Taken together, this study hypothesized that the nonverbal cues emitted from the structural makeup of the face would impact the decision to hire and the perceptions of the job applicant’s personality. It was also expected that variations in facial structure would influence an employer’s decision in hiring the applicant for a high visibility position versus a low visibility position.

The analysis failed to provide support for the hypothesis. Specifically, manipulated changes in eye shape, lip shape and job type failed to significantly effect hiring decisions. The personality ratings, as measured by the four 7-point behaviorally anchored ratings scales, additionally failed to significantly correlate with eye shape and lip shape. The personality ratings, however, were significantly correlated with the decision to hire. Regression analyses performed for each of the job type groups indicated that interviewers have preconceived notions as to the personality of the applicant.
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INTRODUCTION

A major part of our lives is spent in interaction with other people. Thus, it is only natural that we are interested in the nature of our relations with them. Our perceptions of the feelings, motives and traits of others play an extremely important role in developing our social interactions. It is not simply by chance that a great deal of our time is spent in dynamic interaction. From these experiences we learn the appropriate mode of behavior to a particular interpersonal situation. Asch (cited in Taguiri & Petrullo, 1958, p. IX) has said,

To act in the social field requires a knowledge of social facts--of persons and groups. To take our place with others we must perceive each other's existence and reach a measure of comprehension of one another's needs, emotions and thoughts.

Interpersonal interaction is additionally used to meet emotional, physical and social needs. We all want to make ourselves understood and interpreted correctly. In a global sense, we want ourselves to be noticed, reacted to positively, to gain the feeling of being liked and valued, and to acquire respect. It is additionally important that our physical needs are met. For example, an infant must be able to let others know when he is hungry or needs to be changed. In short, through the process of interpersonal communication, we come to know and understand another person as well as let ourselves be known and understood.
Person perception refers to the observations the individual makes about the intentions, attitudes, emotions, abilities, purposes and traits possessed by another person (Taguiri & Petrullo, 1958). The purpose of perception is to help us cope with our complex world by assigning meaning to it. The individual determines what he perceives. The manner in which the person views the world, his attitudes, his experiences in the past and his expectations of the future, all operate to filter and modify his perceptions of any given situation. Man seeks to make sense out of the world by giving names to objects, people and actions. Once these names are assigned, he perceives it in terms of characteristics that conform to that name (Applbaum, Anatol, Hays, Jenson, Porter & Mandel, 1973). Social perception, in short, is the process by which individuals come to know and understand the people and objects around them.

The Perceptual Process

The process of person perception has many facets. According to Warr and Knapper (cited in Applbaum et al., 1973) there are three components comprising the perceptual process. These include the attributive component, the expectancy component and the affective or emotional component.

The attributive component refers to the process by which the individual assigns particular characteristics to a person or object he is perceiving. The characteristics may
include things such as size, weight, color, clothes, intelligence or behavior. The major theme of this component is that the perception process involves categorization. In addition to attributing characteristics to persons and objects, the individual draws inferences from them. Therefore, once an object or person has been labeled, the perceiver attributes certain assumed characteristics to them.

The second component, the expectancy component, is built upon the first. In addition to placing persons and objects into categories, perception involves a range of expectations. These expectations arise from the categories and attributed characteristics. As soon as an object or person is categorized, certain expectations about the thing or person develop. Expectancies lead the person to perceive the person or object as conforming to a label. Therefore, categorization leads to future perceptions of the event which continually reinforces what was first attributed to the object or person.

When the individual perceives persons and objects, he not only classifies them and makes predictions about them, but also emotionally reacts to them. This emotional reaction is explained by the affective component of the perception process. Several studies have concluded that perception has emotional qualities. For example, "we may feel attraction, repulsion, respect, disdain, sympathy, and so on" (Applbaum et al., 1973, p. 23). These feelings
strongly influence the perception process and also influence the type of perceptions and interactions that follow. The affective component may stem from present perceptions or from past associations with what is being perceived. It may also arise from internal feelings of arousal coming from the categories into which we place the person or object perceived.

In sum, our perceptions are formed through the dynamic interaction of all three components. Everything which is perceived is placed into categories and given particular characteristics. These, in turn, create specific expectancies and these expectancies give rise to emotions that influence later perceptions.

Person Perception and the Employment Interview

The process of person perception plays an integral role in organizations. There are many situations at work where perceptions and judgments of other people occur. Included among these are the employee performance evaluation, the employment interview, group meetings which involve planning and decision making, and any public relations activity (Tosi, Rizzo & Carroll, 1986). Whenever people come together, regardless of the organizational situation, the perceptual process is operating. Through person perception, we are afforded the opportunity to come to know and understand people and situations with which we interact.
It is not surprising that the perceptual process plays a significant role in the employment interview. The job interview provides a means by which employers can determine what the candidate is like as a person (Downs, cited in Hollandsworth, 1979). Schuh and, later, Ulrich and Trumbo (cited in Hollandsworth, 1979) state that the interview enables the interviewer to obtain information concerning how the candidate would get along with others and his or her desire to work. The interviewer must draw conclusions about an individual in order to make a decision to hire. Oftentimes, these decisions are based on limited exchanges with the individual. For this reason, the interviewer must be attuned to both verbal and nonverbal cues which may provide valuable information.

Researchers have spent more than 50 years studying the interviewing process. Although the validity of the employment interview as a personnel selection tool has received conflicting empirical support, the interview is considered by most employers to be a crucial part of the hiring process (Schelenker, cited in Gifford, Fan Ng & Wilkinson, 1985). As a result, various components of the interview process have been examined to discover what distinguishes a successful interview from an unsuccessful interview and what types of information the interviewer is using in coming to a decision.
Arvey and Campion (1982) offer a model of the employment interview process. In the model, they state that three variables are involved in the interview. The first is applicant characteristics and includes such factors as physical appearance, age, sex, race, education, experience, and verbal and nonverbal behavior. The second variable addresses the situation. Political, legal and economic forces of the organization, the role of the interview in the selection system, selection ratio, physical setting and interview structure are factors included under this variable. The final variable, interviewer characteristics, addresses the age, sex, race, physical appearance, attitudes, and intelligence of the interviewer, as well as interviewing experience, and prior knowledge of the applicant. Researchers have hypothesized that some of these variables interact to influence the employment interview and subsequent interview outcome. Unfortunately, even after many years of investigation, "we do not have sufficient knowledge...to accurately pinpoint causal relationship between these variables" (Arvey & Campion, 1982, p. 282).

Research over the years has begun to address all three variables with the hope of understanding more about the employment interview. It is not possible to address all three variables due to the expansive scope, therefore, this paper will address those studies which have investigated the
impact of applicant behaviors and characteristics which have been found to significantly effect the interview outcome.

In recent years, researchers have concentrated their efforts in examining the role of applicant nonverbal behavior in the employment interview. Hatfiel and Gatewood (cited in Edinger & Patterson, 1983) state that an applicant's nonverbal behavior during the selection interview will significantly effect the outcome. Schlenker (cited in Edinger & Patterson, 1983) provides an explanation for this hypothesis. First, by concentrating on nonverbal behaviors, the interviewers can obtain accurate and valuable information about a person. Secondly, the interviewer can obtain information through these nonverbal channels which would not or could not be expressed through verbal channels.

Because people are generally on their best behavior during an employment interview, the interviewer looks for nonverbal cues that might suggest inconsistency to determine the interviewee's true feelings (Edinger & Patterson, 1983, p. 47).

The literature addressing the effects of nonverbal behavior of the applicant on the interviewer's impression and hiring decision have produced a consistent pattern of results. Specifically, it has been found that increased levels of eye contact, smiling, gestures, and head nods by an applicant produce favorable ratings. For example, Young and Beier (cited in Arvey & Campion, 1982) found that the level of nonverbal behaviors used by an applicant significantly effected the hiring decision. In this study
the researchers videotaped applicants instructed to use one of four levels of nonverbal behavior in a short interview with a standard script. Fifty judges were then asked to evaluate the applicants as prospective employees. The results of this study revealed that the applicants who portrayed greater amounts of eye contact, head moving, smiling and other nonverbal behaviors received higher ratings and were more likely to be hired. What is interesting to note is that these nonverbal behaviors accounted for more than 80 percent of the rating variance.

In another study, Imada and Hakel (1977) found similar results. Applicants who used greater amounts of nonverbal behaviors produced consistently more favorable ratings. These applicants were perceived and rated as more likely to be accepted, more successful, more qualified, better liked, more desirable, more motivated, more competent, and more satisfied if given the position. In this investigation, nonverbal behavior accounted for approximately 43 percent of the total rating variance. This fact again exemplifies the importance of nonverbal behaviors in the formation of impressions and decisions in the interview.

The level of eye contact used during the employment interview was again found to significantly effect the outcome in a study by McGovern and Tinsley (cited in Arvey & Campion, 1982). They found that applicants who displayed above average levels of eye contact, in addition to other
nonverbal behaviors, were evaluated as worth seeing for a second interview. Amalfitano and Kalt (cited in Gifford et al., 1985) found similar results when examining the impact of the level of eye contact on interviewer's evaluations. When interviewers of an employment agency were asked to rate a photograph portraying either a male or female interviewee looking straight ahead or downward, interviewees were given more positive ratings when they looked straight ahead. In short, applicants with higher levels of eye contact were rated as more alert, assertive, dependable, confident, and as having more initiative. These applicants were also evaluated as more likely to be hired.

Together, these studies show the importance of nonverbal behavior in selection decisions. As mentioned previously, nonverbal behavior accounted for a large percentage of the variance in rater evaluations. Washer and Hakel (1973) provide further evidence. In their study, they found that the nonverbal source of information was more important than verbal cues and that a combination of both kinds of cues were maximally responsible for obtained differences in ratings of job candidates. Argyle, Salter, Nicholson, Williams and Burgess (1970) combined verbal and nonverbal cues for "inferior," "equal," and "superior" presentations in a factorial design. They found that nonverbal cues had 4.3 times the impact of verbal cues on the varying ratings and accounted for 10.3 times as much variance as verbal cues.
did. In addition, they found that the verbal cues acted as multipliers of consistent nonverbal cues. Therefore, an inferior nonverbal signal was perceived to be more inferior when combined with a consistent inferior verbal cue. These results were later supported by a study conducted by Walker (cited in Edinger & Patterson, 1983). When investigating the importance of verbal and nonverbal cues in the expression of confidence, nonverbal cues accounted for more than ten times the variance. In short, nonverbal behavior in the employment interview has been found to significantly effect interviewer ratings and decisions.

When we meet someone for the first time, we are confronted with a barrage of new information. We immediately notice such things as physical appearance, style of dress, etc. Based on these nonverbal cues and the perceptual process, we begin to form some ideas of his or her major traits and causes behind his or her behavior. In short, based on this initial information, we form an impression of another individual.

Research has well documented that interviewers are greatly influenced by first impressions. In addition, it has been found that interviewers tend to make decisions based on these first impressions very quickly (Springbett, cited in Cann, Siegfried & Pearce, 1981). According to McGovern (cited in Edinger & Patterson, 1983), "it seems clear that an interviewer's impression of a candidate is
formed very quickly, perhaps in a little as four seconds" (p. 40). It has also been suggested that these early decisions prevent the interviewer from considering other information which may prove to be contradictory (Webster, cited in Cann et al., 1981). Given the power of first impressions, it is not surprising that the physical characteristics of the applicant significantly influence interviewer ratings and decisions.

Another area which has received considerable attention in the attempt to understand the employment interview is the area of applicant characteristics. Specifically, psychologists have recently begun to probe into the impact of physical attractiveness and sex of the applicant on employee selection. Much of this research has been prompted as a result of discrimination lawsuits. Employment decisions are often based on superficial applicant characteristics rather than on the ability to perform the job. "Nonverbal cues, including the appearance of a candidate, have been found to influence the interviewer's perception of the candidate as well as subsequent hiring decisions" (Hatfield & Gatewood, cited in Forsythe, Drake & Cox, 1985, p. 374). In a series of studies by Rosen and Jerdee (cited in Cann et al., 1981) it was found that females are often rated as less qualified and are hired less often than males. In addition, females are discriminated against in other personnel decisions more often.
A number of studies (Heilman & Saruwatari, 1979; Cann et al., 1981; and Forsythe et al., 1985) have found that employment decisions are significantly affected by the level of physical attractiveness. The level of physical attractiveness was also found to interact with the gender of the applicant. In general, attractiveness consistently proved to be an advantage for men but was an advantage for women only when seeking a non-managerial position. The results of these studies indicated that attractiveness exaggerated perceptions of gender-related attributes involving work behaviors. For example, a managerial position is most often characterized by male traits. The attractive female is perceived as being more feminine and is therefore seen as possessing a smaller amount of the male characteristics required to effectively perform the job. Forsythe, Drake and Cox (1985) found that females could improve their chances for obtaining managerial positions by presenting themselves in a more masculine manner. Specifically, they found a positive relationship between masculinity of the applicant's clothing and favorability of hiring recommendations.

Psychologists are beginning to investigate how other physical characteristics, such as weight and height, affect the employment decision. None of us need to be reminded that obesity holds a stigma in American society. Obese people are often viewed as being weak, lazy and lacking self-
control. In short, individuals tend to attach labels to these people based on physical characteristics. These labels, according to Warr and Knapper's theory of person perception, give rise to expectancies. Therefore, if an obese person is labeled as lazy, it is not unreasonable for an employer to assume that this person would be expected to be lazy on the job.

It has already been shown that the height of the applicant effects employment decisions. In a survey of University of Pittsburgh graduates, Knapp (cited in Kleinke, 1975) found that men who were taller (6 feet 2 inches and above) received higher starting salaries. The taller graduates received an average starting salary which was 12.4 percent higher than that received by men who were shorter (under 6 feet). In another study conducted by Knapp (cited in Kleinke, 1975), 140 corporate recruiters were asked to choose between two job applicants after reading their applications. The difference between the applicants was that one candidate was 6 feet 1 inch and the other was 5 feet 5 inches. The short man was favored by only one percent of the recruiters. Seventy-two percent of the recruiters said that they would rather hire the taller man, while 27 percent had no preference.

The results of these studies clearly indicate that nonverbal cues are significantly impacting the employment decision. Based on these nonverbal cues, the interviewer
tends to categorize the applicant and, in turn, develops certain expectations about that person. These expectations subsequently effect the employment decision. This line of research has provided valuable knowledge which can be used by the interviewer in better understanding the process, in recognizing the possibility of discriminatory effects of these nonverbal cues and in more effectively using and interpreting the information obtained through nonverbal channels. This knowledge can also be used by the potential employee in asking more effective presentations during the interview session and in obtaining positive reactions.

Discrimination against females has long been addressed in the courts and in legislation. The evidence provided by the above studies suggest that mandatory affirmative action and strict compliance are necessary steps to resolve this problem. Prejudices involving physical attractiveness, on the other hand, is much harder to change. These prejudices could be eliminated by attitude modification. In addition, interviewers must be made aware of the potential influence of physical attractiveness on the hiring decision. In short, these ingrained stereotypes must be modified if there is any hope in eliminating their effects.

It is quite evident that interviewers are making halo errors based on these nonverbal cues. Education, group discussion and training workshops could be effective procedures for decreasing these halo errors in ratings.
Interviewers might be taught to focus on nonverbal cues that truly reflect the applicant's job-related qualities. Conversely, through training, applicants might be taught to exhibit particular nonverbal behaviors that reflect job-related qualities valued by the employer. In sum, the purpose of the job interview is to provide information that is obtained through direct, interpersonal communication. Thus any steps taken on either side of the desk to improve communication in the job interview may facilitate the process of achieving an appropriate, productive, and meaningful match between candidate and job (Hollandsworth, et al., 1979, p. 365).

Although more variables associated with the interview have been under investigation in recent years, researchers have tended to neglect other areas which appear in the person perception literature. In reviewing the recent research, Arvey and Campion (1982) were confronted by lack of attention paid to the person perception literature as a whole. As they state (p. 312):

It is almost as if industrial and organizational psychologists have studied the employment interview in isolation from the rest of psychology, perhaps even ignoring the fact that the phenomenon under investigation is essentially a perceptual process.

The Role of Facial Expression in Person Perception

Researchers, in their attempt to understand the interview, have overlooked one of the most obvious and crucial factors discussed in the person perception literature. Namely, they have neglected to address the face as a crucial contributing factor influencing the employment
decision. Facial expressions provide us with one of the best means by which we obtain information about others. "The face is one of the most expressive parts of the human body. At times, a person's facial expressions reveal more about him than his verbal utterances" (Applbaum, et al., 1973, p. 116). As Petronius (cited in Kleinke, 1975, p. 65) so nicely stated, "From a man's face I read his character."

The study of facial expression and its role in social perception dates back to the time of Charles Darwin. He took an early interest in the facial expressions of animals and humans. Darwin believed that their existence and influence could be explained in terms of evolution. Darwin felt that facial expressions or movements were acquired because they served an adaptive function. When humans developed other forms of communication, facial expressions remained an innate form of expressing various feelings and emotions (Kleinke, 1975).

Albert Mehrabian (1972) restated the importance of facial cue in interpersonal communication. In his studies he reported that facial cues contribute approximately fifty-five percent of the message in face-to-face interaction. The remainder of the message is derived from paralanguage cues and the actual verbal cues. Other studies have found that the nonverbal cues from the face outweigh verbal cues. In fact, when an individual perceives conflict between what another person says and his facial expressions, the verbal
message is disregarded (Argyle, 1971). Other studies have repeatedly shown that, in general, the face is considered the greatest source of information in human interaction (Harrison, 1974; and Knapp, 1972).

**Physiognomic Facial Features and Their Role in Person Perception**

He seemed remarkably youthful. His face was smooth, unlined. Small ears set close to the skull. A strong jaw. Prominent cheek bones. Large eyes, widely spaced, with an expression at once impassive and brooding. Straight hair, parted on the left, but combed flatly back. Heavy brows. Sculpted and unexpectedly tender lips, softly curved (Sanders, 1973, p. 428).

This face, as described in a novel by Lawrence Sanders (1973), clearly communicates to the reader. Not only do facial expressions play an active role in impression formation, but the actual physiognomic (genetic) facial features are additionally influential in the process. The features of the face, after all, make up the facial expression.

Human physiognomy has been a topic of great interest throughout history. Artists and writers have had a shared interest in physiognomy. The physiognomic structure refers to the width and length of the face, the shape of the nose and the mouth, and the size and shape of the eyes (Secord, cited in Taguiri & Petruullo, 1958). These are the "building blocks" of the face and vary from person to person (Laser & Mathie, 1982). In order to be able to capture emotions in
their works of art, artists and writers had to carefully
examine the features of the face. This interest, however,
has not been shared by psychologists until recent years. In
the past, a variety of studies were conducted in order to
compare impressions of personality and character formed from
facial photographs. These psychologists found little
correlation between impressions based on facial features and
appraisals of personality (Secord, cited in Taguiri &
Petrullo, 1958). For this reason, the study of physiognomy
was abandoned.

The interest in interpersonal perception in recent years
has brought psychologists back to the study of the role of
facial features in nonverbal communication and person
perception. Boucher and Ekman (1975) have investigated the
role of facial movement in the recognition of emotions.
They hypothesized that the facial area which provided the
best accuracy in distinguishing the presence of emotion
would vary from emotion to emotion. Photographs of faces
with different emotions were taken and subjects were asked
to look at only parts of the face (brows/forehead,
eyes/eyelids, or cheeks/mouth region). The judges were
asked to make detailed descriptions of these facial
components. The results supported the hypothesis; there is
no single area of the face which best reveals emotion.
Different facial areas which differentiate emotions depends
upon the emotion being judged. For example, brows/forehead
and eyes/eyelids reveal the emotion of happiness. These finding support the premise that the actual facial features are involved in the perception process. Different areas of the face interact to produce an emotion and this emotion contributes to the overall impression formed.

Structural facial features were found to be more influential than facial expressions when evaluating the attractiveness of infants (Hildebrandt, 1983). Hildebrandt's study was designed to measure the relationship between judgments of infant's physical attractiveness and facial expression. Infants were, in fact, rated as cuter when they portrayed a positive facial expression. However, the results of this study also suggested that the general level of perceived cuteness was not affected by facial expression. For example, when an infant who was perceived as generally unattractive smiled, he was not considered to be as cute as a smiling infant who was perceived to be generally attractive.

Another series of studies support the importance of facial features in person perception. Keating, Mazur and Segall (cited in McArthur & Baron, 1983) found that persons with broad faces or receding hairlines were perceived as being dominant. McArthur and Apatow (1983) found that "baby faced adults," those with large eyes, short noses and ears and low vertical placement of all features, were seen to possess less social dominance, physical strength and
intellectual astuteness. Eistel (cited in Izard, 1971, p. 352) found that

sharp physiognomic features tend to be associated with persons judged as determined and powerful, while rounded physiognomic features tend to be associated with gaiety, adaptiveness, and emotional agility.

Laser and Mathie (1982) found that physiognomic changes in eyebrows, lips and face shape lead to different impressions. Specifically, they found that a face which bore thick eyebrows was evaluated most unfavorably in that it was seen as significantly less warm, less cheerful, less pleased and less at ease than either the faces with thin eyebrows or normal eyebrows. This face was also seen as being more tense, more angry, more stern and more stubborn. Secondly, it was found that a face which possessed thick lips was generally evaluated more favorably than a face with either thin or normal lips. The thick lips face was evaluated as being warmer, more at ease, less tense and less angry. Finally, it was found that changes in the shape of the face led to different evaluations. A narrow shaped face produced the most unfavorable ratings than either the broad or narrow shaped faces. For example, the narrow shaped face was evaluated as being less friendly, less warm, less cheerful, less pleased and less at ease. The findings of this study provide evidence that structural, physiognomic changes in observed faces lead to variations in the observers' perception of expression. Mathie and Laser's
study also helps to explain the occurrence of feature stereotyping. From this investigation,

physiognomic structure appears to mimic imposed expression, and vice-versa; this duplication is visually the same and, since personality seems to be derived in part at least from perceived expression, observers are reading supposedly voluntary information from actual involuntary structural characteristics (Laser & Mathie, 1982, p. 17).

In sum, these findings suggest that the actual physiognomic structure creates impressions.

In a recent study by Muller, Mathie, Laser and Burt (1985) it was again found that physiognomic features do make a difference in the perceptual process. In this investigation, subjects were asked to rate ten faces on 19 dimensions. The stimulus faces possessed the same intensity of the imposed expression happy as rated by Ekman and Friesen's Facial Action Coding System (FACS). The purpose of FACS is to code facial expression apart from physiognomic features (Scherer & Ekman, 1982). Since FACS measures expression only, overriding physiognomic structure, the expressions should be equal. As a result, it was hypothesized that if any differences in the ratings occurred, these differences should be due to facial features and not to expression. The researchers did find differences in the evaluations of these faces. Despite the fact that these faces were rated as being equivalent in terms of the imposed expression happy, the faces were perceived as expressing varying degrees of the happy expression. These findings
provide additional support for the previous research; the actual structural features of the face are influencing perception and the formation of impressions.

Cognitive Processes Operating in Impression Formation

Secord (1958) outlined five types of cognitive processes which individuals use to form impressions of others based upon their facial expressions and physiognomic features. These processes are rarely deliberate and conscious; the perceiver is seldom aware of the ways in which he makes judgments about other people.

The first cognitive process is the process of temporal extension. This is the most frequently occurring perceptual process operating in impression formation. It occurs when the perceiver esteems a momentary characteristic of an individual as if it were an enduring attribute. For example, a person who is seen as smiling may be temporarily responding in a friendly manner by the perceiver and may infer from this expression the enduring attribute "good-tempered" or "easy going."

Parataxis refers to a "process of reacting to people as if they represent 'significant others' from one's past" (Secord & Jourard, 1956, p. 246). The perceiver often uses past experience in forming impressions and thus often generalizes from a previous interpersonal situation with a significant other to a new object person whether they are appropriate or not. Secord and Jourard (1956) conducted an
investigation to determine the role of parataxis in the ratings of unknown young women by a male judge. They hypothesized that a male judge would rate these women in the direction of his "mother-concept." Mother concepts were in fact attributed to other women as long as the appropriate physiognomic features were present. They found that the mother-concepts formed the basis of generalized expectancies concerning the nature of other women.

Since perceptual judgment, particularly complex social judgment of faces, are likely to be dependent upon expectancies, it is not surprising that a judge "sees" certain faces as having his mother's characteristics in some degree (Secord & Jourard, 1956, p. 249).

On the basis of this research it can be reasoned that a crucial factor tending to produce parataxic distortion in particular situations is the degree of similarity of physiognomic, behavioral or situational cues concerning the stranger and those concerning some significant other.

The third cognitive process used in person perception is categorization. In this process physiognomic cues are used to place the person in a category which is associated with certain personality traits. Sex, age, and race are the most popular categories used. For example, a perceiver may estimate an individual's age from physiognomic cues. Because he believes that older people are more responsible and patient and less energetic, he forms an impression involving these attributes.
An impression may also be based upon a functional idea. "Where a part of the face has a special function in a clearly defined behavioral area, this functional characteristic may lead to an inference" (Secord, 1958, p. 308). The mouth is the part of the face most often involved in functional inference since it is the most mobile part of the face and most involved in behavioral activities. For example, since the mouth is used for talking, a person with thin or compressed lips may not be rated as talkative. Secord and Muthard (1955) found that women with either thicker than average lips or with relaxed mouths were perceived as being sexy. The illogical idea that people who have high foreheads are more intelligent since a higher forehead implies greater brain capacity is another example supporting the concept of functional inference.

The final cognitive process involved in interpersonal perception is the process of metaphorical generalization. Secord (1958) believed that analogies are frequently used to tie together physiognomy and personality. For example, "thick eyebrows" and "coarse skin" may be classified under the category of "roughness," which in turn is generalized to personality. This generalization would lead to personality attributes such as "unkind" or "hostile." In short, physical qualities of the person are generalized by analogy to describe qualities of the personality.
In sum, these five cognitive processes help to explain the ways in which individuals form personality impressions from physiognomic features. These processes are not mutually exclusive, rather they dynamically interact with each other in order to assist a person in coming to know and understand the people around him. These cognitive processes also illustrate that impression formation is often based upon definite physiognomic features.

Physiognomic Facial Features and the Employment Interview

The employment interview, as is evident, has been a topic of great interest over the years. Research has repeatedly supported the hypothesis that nonverbal cues significantly influence the interviewer’s perception of the candidate as well as subsequent hiring decisions. As stated previously, it has been found that applicants who portrayed greater levels of eye contact, head movement, gestures and/or smiling during the interview received higher ratings and were more likely to be hired than applicants who portrayed lower levels of the same nonverbal behaviors. Investigation has additionally found that applicant characteristics, such as physical attractiveness and height significantly influence hiring decisions.

While many individuals have concentrated their efforts on uncovering the perceptual process operating during the interview session, others have focused their research
efforts on understanding the role the face plays in person perception and impression formation. Research has consistently found that variations in the structural shape of different facial areas produce significantly different impressions. It seems that part of the communication message expressed to others is beyond an individual's control. Since the perceptual process is operating during any social situation, it is possible that the genetic (physiognomic) makeup of the face and the messages being sent from it may not be situationally appropriate. It is possible, for example, that nonverbal messages arising from the facial structure of an individual may unintentionally impact the impressions formed during the employment interview and the subsequent hiring decision.

As previously stated, researchers, in their attempt to understand the interview process, have neglected to address the face as a major contributing factor influencing the employment decision. The face, after all, is considered to be a great source of information in human interaction. It is central to our line of vision and the area upon which individuals generally focus their attention. If physiognomic features influence the perceptual process as the previous research suggests, then it is not unreasonable to expect that these nonverbal cues are impacting the ratings and hiring decisions of job applicants. It is possible, other things being equal, that employers in their
search to find the "right" person for the job, are making hiring decisions on the basis of what the individual looks like (i.e., the actual structural features of the face).

The present study investigated the effect of structural facial features on the evaluations of job applicants. Eye shape (narrow versus round) and lip shape (thick versus thin) were systematically varied while holding other physiognomic structure constant. The eye and mouth areas were chosen for manipulation for a number of reasons. First, these are of the more prominent features of the face. Second, eye contact has been a variable repeatedly found to be important in the interviewing process. Since the eye region is of significant importance during the interview, it is possible that variations in the shape may influence how individuals are perceived and the subsequent hiring decisions. For example, a person who possesses large round eyes may be perceived as attentive, eager, and/or assertive while an individual with narrow eyes may be perceived as being untrustworthy, sly, and/or skeptical. This perceptual categorization may lead to certain expectancies which may ultimately effect the decision to hire or not to hire. Third, Laser and Mathie (1982) found that lip shape significantly influenced impression formation. Finally, according to Secord (1958), regions of the face which serve a special function in a defined behavioral area may lead to an inference. The mouth is the most mobile part of the face and
most involved in behavioral activities. Thus, an individual with thin or compressed lips may not be rated as talkative. Again, these inferences may lead to certain expectancies which will effect the outcome of the interview.

In addition to exploring the impact structural features of the face have on the employment decision, this study examined the interactive effect of structural feature manipulation with job type manipulation. When investigating the role of physical attractiveness in hiring decisions, researchers found that the level of physical attractiveness had a differential effect when hiring females for either a managerial or non-managerial position. In line with these findings, it is possible that structural characteristics of the face may influence an employer’s decision of whether or not to hire an applicant for a particular position. In the present analysis job type were varied in terms of the level of public contact/visibility required for the position. It is reasoned that the way an individual looks may influence an employer’s decision of whether or not the person is suited for a highly visible position.

In sum, this study examined the main and interactive effects of manipulated changes of structural characteristics of the face on hiring decisions, as well as the interactive effect of structural feature manipulation with job type manipulation. It is hypothesized that:

(1) Changes in eye shape (round or narrow) will have a
differential effect in hiring job candidates for a high contact (Front Desk Hotel Manager) or low contact (Senior Computer Programmer) position,

(2) Changes in eye shape (round or narrow) will have a differential effect in the overall decision to hire job applicants,

(3) Changes in lip shape (thick or thin) will have a differential effect in hiring job candidates for a high contact (Front Desk Hotel Manager) or low contact (Senior Computer Programmer) position,

(4) Changes in lip shape (thick or thin) will have a differential effect in the overall decision to hire job applicants,

(5) Changes in the combination of eye shape and lip shape (round eyes/thick lips, round eyes/thin lips, narrow eyes/thick lips, and narrow eyes/thin lips) will have a differential effect in hiring job candidates for a high contact (Front Desk Hotel Manager) or low contact (Senior Computer Programmer) position, and

(6) Changes in the combination of eye shape and lip shape (round eyes/thick lips, round eyes/thin lips, narrow eyes/thick lip, and narrow eyes/thin lips) will have a differential effect in the overall decision to hire job applicants.

In addition to the aforementioned hypotheses, this study examined the relationship between subjects' perception of
the candidate’s personality and the hiring decision, as well as perceived personality and the candidate’s structural facial features. Each candidate was evaluated on a series of 7-point bipolar personality scales. These personality ratings were correlated with both the hiring decision and physiognomic structure. It was hypothesized that perceived personality, as measured by ratings on the four personality dimensions, would be significantly related to the decision to hire and variations in personality ratings would be significantly related to variations in facial structure.
METHOD

Subjects

Ninety-one male subjects were recruited from Personnel Management, Labor Relations and Business Policies classes at the University of Central Florida. All subjects were upper level (junior/senior) students. Participants were randomly assigned to the eight treatment conditions by using a random number table. The random assignment resulted in 12 subjects assigned to treatment 1 (Computer Programmer x Round Eyes x Thick Lips), 11 subjects assigned to treatment 2 (Computer Programmer x Round Eyes x Thin Lips), 12 subjects assigned to treatment 3 (Computer Programmer x Narrow Eyes x Thick Lips), 11 subjects assigned to treatment 4 (Computer Programmer x Narrow Eyes x Thin Lips), 11 subjects assigned to treatment 5 (Hotel Manager x Round Eyes x Thick Lips), 11 subjects assigned to treatment 6 (Hotel Manager x Round Eyes x Thin Lips), 11 subjects to treatment 7 (Hotel Manager x Narrow Eyes x Thick lips), and 12 subjects assigned to treatment 8 (Hotel Manager x Narrow Eyes x Thin Lips).

Materials

Materials for the present study included four composites to serve as job applicants, two position descriptions, and two resumes.
Four composites were developed by the Light House Point Police Department located in Light House Point, Florida. The four faces were identical in physiognomic structure, allowing only the independent variables, eye shape and lip shape, to vary. The first face possessed large round eyes and thick lips; the second, large round eyes and thin lips; the third, narrow eyes and thick lips; and the fourth, narrow eyes and thin lips.

A position description was constructed for the two levels of the job type variable. Job type was varied in terms of the level of public contact/visibility involved in the position. A front desk hotel manager, a high visibility position which requires a great deal of interaction with the public, defined the high contact job. The low contact job was defined as a senior computer programmer, characterized by low visibility and low interaction with the public. The position descriptions clearly outlined the specific duties and responsibilities of the incumbent assigned to that position, as well as the minimum education and work experience requirements.

Two resumes, one for the hotel management position and one for the senior computer programmer position were constructed. Each resume contained information pertaining to demographic characteristics, educational qualifications (school attended, and major field of study), and work experience. The two resumes were identical in terms of
demographic characteristics and school attended. The major field of study and work experience were varied to reflect the two positions addressed. However, the quantity and quality of the work experience of the two positions were of the same level.

**Procedure**

To obtain participants required for the study, professors of the College of Business Administration were asked if they would be willing to provide approximately 20 minutes of their class time for data collection. With their cooperation, the male students attending their classes were told that the purpose of the present study was to investigate the employment selection process. To study this process, it was explained that they would be required to review a position description of the job to be filled and then to evaluate a candidate interested in the position. In addition, it was emphasized that their participation was completely voluntary and those not interested in participating could leave at any time. All students who agreed to participate in the experiment were given a packet containing an informed consent form, instructions, one of the position descriptions, the corresponding resume with one of the four composites attached, and the evaluation forms (refer to Appendix A for the contents of the packet).
The instructions provided to the subjects asked them to assume the role of Hotel Director or Manager of Computer Operations. In this role, the subjects were given the responsibility of filling the corresponding vacancy. They were to assume that the resume provided had been forwarded by the Personnel Director of the company. According to the Personnel Director, the initial interview with the applicant went well and the applicant met the minimum qualifications required for the position. As a result, the Director felt the candidate should receive further review. The subjects were then instructed to review the attached position description and the accompanying resume and to evaluate the applicant. Specifically, subjects were asked to indicate, on a 7-point behaviorally anchored rating scale, how likely they would be to hire the applicant. Responses on this rating scale represented the dependent measure of this study.

After the subjects had completed the first evaluation form, they were instructed to complete the second evaluation form containing four personality dimensions. Subjects were asked to evaluate the candidate on four 7-point behaviorally anchored scales. Specifically, the participants were requested to indicate how they would best characterize the candidate on the dimensions "outgoing-reserved," "dependable-undependable," "patient-impatient," and "decisive-indecisive." These dimensions were chosen since
they are often considered to be preferred employee characteristics and have appeared frequently in the perception literature. Each subject in the eight treatment conditions were given the same instructions with the necessary adjustments corresponding to the job presented.

After completing the review, the participants were debriefed as to the specifics of the experiment. The subjects were provided with a brief background of past research efforts, a statement of the present hypotheses based upon the research, and information hoped to be obtained as a result of the study. Students were encouraged to ask any questions and to provide any insights. In addition to this debriefing, all students who provided their address on the informed consent form were provided with a copy of the results of this study.
RESULTS

Group Equivalence Analysis

Because subjects were obtained from three different classes with varying degrees of management exposure, a one-way analysis of variance was conducted to determine if there were significant group differences on the primary dependent variable, decision to hire. The $F(2,88) = .2318$ was not significant ($p > .01$).

Descriptive Statistics

Table 1 (Appendix B) summarizes the mean scores and standard deviations for the decision to hire obtained for the eight treatment conditions. Analysis of these findings reveals that the average responses to the question, tendency to hire the applicant, centered around the middle of the 7-point behaviorally anchored rating scale for each of the treatment conditions.

Analysis of Variance

This section of results addresses the primary research question of this study, namely, do manipulated changes in the structural characteristics of the face significantly effect hiring decisions and the type of job an individual is hired for?
It was hypothesized that manipulated changes in eye shape and lip shape (round eyes/thick lips, round eyes/thin lips, narrow eyes/thick lips, and narrow eyes/thin lips) will have a differential effect in hiring applicants for a high contact (front desk hotel manager) or low contact (senior computer programmer) position. A three-way analysis of variance with unequal sample size and fixed effects was performed. The main effects for eye shape \( F(1,83)=0.0298 \), lip shape \( F(1,83)=1.5045 \), and job type \( F(1,83)=0.9101 \) failed to reach significance \( p>0.05 \). Analysis of the two-way interaction effects of eye shape and lip shape \( F(1,83)=1.7839 \), eye shape and job type \( F(1,83)=1.7839 \), and lip shape and job type \( F(1,83)=0.5687 \) also yielded insignificant results. Finally, an insignificant three-way interaction effect of eye shape, lip shape, and job type was obtained, \( F(1,83)=0.4895, p>0.05 \). Tables 2, 3 and 4 (Appendix B) provide a summary of the three-way analysis of variance of decision to hire and marginal means obtained for each of the interaction effects.

**Regression Analysis**

The final analysis focused upon the questions: 1) is perceived personality, as measured by the ratings on the four personality dimension scales, significantly related to the decision to hire, and 2) do variations in personality...
ratings significantly correlate with variations in eye
shape and lip shape?

Bivariate correlations among the four predictors were
calculated. In addition, bivariate correlations with the
dependent variables, decision to hire, eye shape and lip
shape were obtained. The critical value required for
significance at $p<.05$ was 2.08. All four predictor
variables were significantly correlated with the decision to
hire. Specifically, the variables outgoing/reserved
($r=.34$), dependable/undependable ($r=.33$), patient/impatient
($r=.26$) and decisive/indecisive ($r=.41$) were found to be
positively related to the decision to hire. The predictor
variables, however, failed to significantly correlate with
eye shape and lip shape. The correlation matrix of the four
predictor variables with the three criterion variables can
be found in Table 5 (Appendix B).

For the dependent variable, decision to hire, several
regression equations were computed to determine the best
predictors of the decision to hire. The full-model equation
resulted in a significant $R (r=.51, F(4,84)=7.54, p<.001)$. The
resulting regression equation was as follows:

$$Y' = 1.82 + .17X_{\text{out/res}} + .05X_{\text{dep/undep}} + .16X_{\text{pat/impat}} + .26X_{\text{dec/indec}}$$

The semi-partial correlations for each of the predictor
variables were analyzed to determine which were not uniquely
contributing to the decision to hire. Using a significance
level of $p<.05$, it was found that the personality dimensions outgoing/reserved ($t=2.30$) and decisive/indecisive ($t=2.99$) were significant at $p<.05$. Tables 6 and 7 (Appendix B) provide a summary of the regression analysis.

Next, all independent variables which did not have significant semi-partial correlations were removed from the regression equation. If removing a variable from the regression equation caused a significant loss in $R$, the variable was to remain. Conversely, if variable removal did not result in a significant loss in $R$, it was dropped from the regression equation. Therefore, the predictor variables were removed from the regression equation one at a time using backward elimination with a significance level of $p<.05$ as a criterion.

Dependable/undependable was the first predictor to be removed. The resulting $R$ was .51, significant at $p<.001$ (Table 6, Appendix B). Again, significance was found among the dimensions outgoing/reserved ($t=2.42$, $p<.05$) and decisive/indecisive ($t=3.49$, $p<.001$). The regression equation resulting from this analysis was as follows:

$$Y' = 1.89 + .18X_{\text{out/res}} + .16X_{\text{pat/impat}} + .28X_{\text{dec/indec}}$$

The next variable to be dropped using the statistical criterion was patient/impatient. The $R$ (.49) was significant ($F(2,86)=13.27$, $p<.001$). As shown in Table 6 (Appendix B), significance was obtained for both the variables outgoing/reserved ($t=2.68$, $p<.001$) and
decisive/indecisive ($t=3.69, p<.001$). The final best solution was:

$$Y' = 2.55 + .20X_{\text{out/res}} + .30X_{\text{dec/indec}}$$

The estimated shrinkage in $R^2$ (from .24 to .22) indicates a stable relationship for these variables. It can therefore be stated that the independent variables outgoing/reserved and dependable/undependable accounted for approximately 24% of the variance in the decision to hire.

Full-model correlation and regression analyses with eye shape and lip shape were employed. As shown in Tables 8 and 9 (Appendix B) the resulting $R$ for eye shape (.18) and lip shape (.09) failed to reach significance ($p>.05$).

Due to the lack of significant findings obtained when analyzing the relationship between the personality dimensions and the structural features of the face, it was determined that additional analysis was needed to ascertain if subjects were basing their personality ratings on something other than the face. Specifically, job type might influence an individual's idea of an applicant's personality. To test this hypothesis, for each job type, a series of regression equations were computed for the decision to hire. First, the regression analysis was conducted for the senior computer programmer group. The full-model equation resulted in an insignificant $R$ ($F=2.33, p>.05$). Tables 10 and 11 (Appendix B) summarize these findings. Analysis was therefore continued by employing the
full-model equation for the front desk hotel manager group. The resulting R was .58, significant at $p < .01$ (Table 12, Appendix B). The resulting regression equation was as follows:

$$Y' = 1.39 + .19X_{\text{out/res}} + .19X_{\text{dep/undep}} + .11X_{\text{pat/impat}} + .21X_{\text{dec/indec}}$$

Analysis of the semi-partial correlations for each of the predictor variables revealed that none of the dimensions were uniquely contributing to the decision to hire (Table 13, Appendix B). As before, the insignificant predictor variables were removed from the regression equation one at a time using backward elimination with a significance level of $p < .05$ as a criterion.

Patient/impatient was the first predictor to be removed. A significant $R (F(3,41)=6.81, p < .001)$ was obtained. There was, however, no change with respect to significant semi-partial correlations of the predictor variables. Therefore, the dimension decisive/indecisive was removed from the equation resulting in an $R (.56)$ which was significant ($p < .001$). Removal of the dimension caused both the variables outgoing/reserved ($t=2.44$) and dependable/undependable ($t=2.69$) to become significant ($p < .05$). The final regression equation was:

$$Y' = 1.60 + .30X_{\text{out/res}} + .35X_{\text{dep/undep}}$$
DISCUSSION

The analysis failed to provide support for the primary hypothesis of this study. Specifically, manipulated changes in eye shape, lip shape and job type failed to significantly effect hiring decisions. Review of the mean and standard deviations of the decision to hire obtained for the eight treatment conditions reveals that the average response to the question, tendency to hire, clustered around the middle of the 7-point behaviorally anchored rating scale with little variance. These findings were obtained in spite of the fact that the applicants were portrayed as successfully meeting the minimum qualifications of the position.

There are a number of factors which may have attributed to the lack of significant findings. First, the lack of significance may be due to the error of central tendency exhibited by essentially untrained student raters. Second, the stimulus faces may not have been of the quality to elicit significant differences in the ratings. Third, when speaking with the students after the study, many stated that they did not want to be influenced by the photograph and consequently disregarded the face when making the decision. Finally, many of the subjects stated that they were hesitant in making a decision to hire the applicant without first meeting the individual. Taken together, it is speculated
that hesitations on the part of the evaluator led to "safe" (i.e., average) ratings despite the acceptable qualifications of the applicant.

This study additionally hypothesized that eye shape and lip shape would significantly correlate with personality ratings. Contrary to previous research studies (Laser and Mathie, 1982; Muller et al., 1985) which found that variations in the physiognomic structure of the face produced significantly different personality impressions, the personality ratings, as measured by the four 7-point behaviorally anchored rating scales, failed to significantly correlate with eye shape and lip shape. The lack of significance may again be attributed to the hesitancy of the evaluators. Many of the subjects indicated that they were reluctant to form impressions based on the picture and the limited information provided. Interestingly, this reluctance did not occur in the previous studies mentioned above. The subjects in those studies were asked to rate faces on a series of personality dimensions very similar to those presented in this investigation. The subjects in the previous studies were not, however, asked to make a decision about the individual rated. It is possible that the participants in the present analysis were influenced by the requirement of making a hiring decision and the consequence associated with the decision. This influence may have been compounded with the fact that the evaluators appeared to
desire the opportunity to interact with the applicant.

The regression analyses computed for each job type indicated that the type of job influenced the subject's perception of the applicant's personality. For the computer programmer group, none of the personality dimensions were predictive of the decision to hire. Based on these findings, it is speculated that the applicant's personality was not a crucial factor when a decision to hire was made for a low visibility position. As would be expected, the applicant's personality did influence the hiring decision for the high visibility position. Specifically, it was found that the personality dimensions outgoing/reserved and dependable/undependable were predictive of the decision to hire. Therefore, applicants who were perceived to be more outgoing and more dependable were more likely to be hired for the front desk hotel manager position. In sum, it appears that the interviewers do have preconceived notions as to the personality of the applicant which is dependent upon the type of position.

Although the present study failed to support the hypothesis that nonverbal cues emitted from the structural features of the face significantly influence hiring decisions and personality impression formation, this line of research should be continued. This study should be replicated using realistic faces and a dynamic simulated interview session. It may be possible for make-up artists
to structurally alter selected areas of the face. It is recommended that a dynamic interview session be incorporated into the study to overcome some of the obstacles experienced in the present analysis. Specifically, several standard interview sessions should be videotaped with an interviewer and the interviewee with the structural alterations made to the face. The subjects would then be asked to view the recorded interview session and then make the evaluations.

Research has repeatedly shown that nonverbal communication plays a crucial role in person perception and employee selection. Although the nonverbal cues emitted from the face did not directly influence perception of personality and the hiring decision, the present analysis did reveal that interviewers do form impressions of the type of person believed to be most suitable for a particular job. This provides support to the premise that personnel selection decisions should be data based. Follow-up analyses may reveal that different personality variables are related to different jobs. Results from this line of research may illustrate that interviewers are basing their decisions on personality-related variables rather than job-related variables. Again, this points to the importance placed upon nonverbal cues; the presentation of the applicant to the interviewer may influence the personality perceived and the decision as to whether this applicant is the most suitable individual for the position.
INFORMED CONSENT

I, ______________________, acknowledge that I have volunteered to participate in a study conducted by Susan Muller. I understand that the purpose of the study is to investigate the employment selection process and that I will be required to review a position description and job resume and evaluate a job applicant. My responses on the evaluation form will remain anonymous and confidential and I may withdraw from the experiment at any time.

__________________________________________  ________________________________________
Susan C. Muller                          Participant

__________________________________________
Date

If you have any questions about this project, please call either Dr. Edward Shirkey, Psychology Department at 275-2534 or Susan Muller at 282-1899 (home) or 629-6010 (work).

If you would like to receive a summary of the final results of this study, please provide your address in the space provided below.
INSTRUCTIONS

You are the Hotel Director of a Marriott Hotel/Convention Center located in Kissimmee, Florida. As the Hotel Director, you are responsible for overseeing all operations and ensuring a smooth and efficient functioning of the hotel. Recently, one of your key personnel, the Front Desk Hotel Manager was promoted and transferred to another hotel location. As a result, you are faced with the responsibility of filling this vacancy.

At your request, the Personnel Department has been prescreening applicants for the position. The Personnel Director has just forwarded a copy of a resume for your review. According to the Personnel Director, the preliminary interview went well and the applicant meets the minimum qualifications required for the position. As a result, the Director believes the candidate should be further reviewed by you.

Your task is to review the attached position description and the resume of Mr. Steven Walker. After you have reviewed the resume, please complete the attached evaluation forms.
INSTRUCTIONS

You are the Manager of Computer Operations at Data Entry Incorporated, a leading computer systems company with offices in Orlando, Jacksonville, Pensacola, Tampa, St. Petersburg and Fort Lauderdale. As the manager of the Orlando office, you are responsible for overseeing all operations and ensuring a smooth and efficient functioning of this division. Recently, one of your key senior computer programmers was promoted and transferred to another branch office. As a result, you are faced with the responsibility of filling this vacancy.

At your request, the Personnel Department has been prescreening applicants for the position. The Personnel Director has just forwarded a copy of a resume for your review. According to the Personnel Director, the preliminary interview went well and the applicant meets the minimum qualifications required for the job. As a result, the Director believes the candidate should be further reviewed by you.

Your task is to review the attached position description and the resume of Mr. Steven Walker. After you have reviewed the resume, please complete the attached evaluation forms.
GENERAL RESPONSIBILITIES

The incumbent of this position is responsible for ensuring a smooth and efficient operation of the front desk activities. As the Front Desk Manager, this individual must possess strong interpersonal skills and must be able to effectively deal with the public. The incumbent of this position will report directly to the Hotel Director.

SPECIFIC RESPONSIBILITIES

- Coordinates front office activities of the hotel and resolves problems arising from guests' complaints, reservation and room assignment activities, and unusual requests and inquiries.
- Assigns duties and shifts to subordinates.
- Observes performance of subordinates to insure adherence to hotel policies and established operating procedures.
- Confers and cooperates with other department heads to insure coordination of hotel activities.
- Answers questions pertaining to hotel policies and services.
- Greets important guests personally.
- Arranges for private telephone line and other special services.
- May patrol public rooms, investigate disturbances and warn troublemakers.
- May interview and hire applicants.
- Advises guests of available hotel activities.
- Books all conventions and insures that the arrangements meet the needs of the guests.

(continued on next page)
Minimum Qualifications

A Bachelor's degree in Hotel/Restaurant Management, Business Administration or some related field.

At least five years experience in the field of hotel management, with at least two years in a supervisory capacity.

Starting salary range: $28,500 - $31,500
POSITION DESCRIPTION
SENIOR COMPUTER PROGRAMMER

General Responsibilities

The incumbent of this position is responsible for developing software packages to be used by companies in their attempt to computerize administrative and business operations. As a senior computer programmer, the individual is required to work independently with little or no direction. The incumbent of this position will report directly to the Manager of Computer Operations.

Specific Responsibilities

- Converts symbolic statements of administrative data or business problems to detailed logical flow charts for coding into computer language.
- Analyzes all or part of workflow chart or diagram representing business problem by applying knowledge of computer capabilities, subject matter, algebra, and symbolic logic to develop sequence of program steps.
- Writes detailed logical flow chart in symbolic form to represent work order of data to be processed by computer system, and to describe input, output, and arithmetic and logical operations involved.
- Converts detailed flow chart to language processable by computer.
- Devises sample input data to provide test of program adequacy.
- Prepares block diagrams to specify equipment configuration.
- Observes or operates computer to test coded program using actual or sample data.
- Corrects program errors.
- Prepares written instructions to guide operating personnel.
- Analyzes, reviews and rewrites programs to increase operating efficiency or to adapt to new requirements.

(continued on next page)
Compiles documentation of program equipment and subsequent revisions.

Minimum Qualifications

A Bachelor's degree in Computer Science or Management Information Systems.

At least five years experience in the area of software development.

Starting Salary Range: $28,500 - $31,500
STEVEN WALKER  
453 Shoreham Park Road  
Orlando, Florida  32867  
(305) 689-3224

JOB OBJECTIVE:
Seeking a position of responsibility and growth potential in the hotel industry.

EDUCATION:
Bachelor of Science, Hotel/Restaurant Management (1982)  
University of Richmond, Richmond, Virginia

WORK EXPERIENCE:
Red Carpet Inns, Orlando, Florida

ASSISTANT TO MANAGER OF GUEST SERVICES (1985-present)  
Promoted to Assistant to Manager of Guest Services. Responsibilities include assisting the Manager with front desk hotel operations to include bell stand, valet parking and special guest services. Additionally responsible for assisting with the supervision of 12 employees, the review and reporting of subordinate performance, and the training and orientation of new employees.

NIGHT CLERK/AUDITOR (1983–1985)  
Principal responsibilities included: maintaining the computer system; auditing cashier and bank reports; resolving complaints; and generating miscellaneous reports regarding daily sales.

Ramada Inn, Orlando, Florida

DESK CLERK (1982–1983)  
Responsibilities included: registering hotel guests; posting charges to guest accounts; assigning rooms; and assisting in making future reservations.

REFERENCES: Furnished upon request.
STEVEN WALKER  
453 Shoreham Park Road  
Orlando, Florida 32867  
(305) 689-3224  

JOB OBJECTIVE:  
Seeking a challenging position in programming with an expanding computer software company.  

EDUCATION:  
Bachelor of Science, Management Information Systems (1982)  
University of Richmond, Richmond, Virginia  

WORK EXPERIENCE:  
Kirchman Corporation, Orlando, Florida  
CONVERSION PROGRAMMING ANALYST (1985–present)  
Designs systems and writes programs for converting deposit and loan applications of banks running on diverse software and hardware systems. Solves conversion problems and writes post-conversion fix programs.  

Scan Design, Orlando, Florida  
PROGRAMMER ANALYST (1982–1985)  
Assisted in troubleshooting sales and inventory control systems and revising and improving many error-causing areas. Updated accounting and payroll software and assisted in automating inventory-taking procedures.  

REFERENCES: Furnished upon request.
### Applicant Evaluation Form

**Part One**

**Instructions.** For the applicant reviewed, please indicate on the 7-point rating scale your tendency to hire this individual.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Extremely likely to hire this applicant with little or no hesitation. Believe the applicant possesses the necessary skills and abilities to successfully perform the duties and responsibilities required of the position.</td>
</tr>
<tr>
<td>6</td>
<td>(Falls somewhere between 7 and 5)</td>
</tr>
<tr>
<td>5</td>
<td>Would hire the applicant with a little hesitation. Believe that the applicant could successfully perform the duties and responsibilities if given close supervision at the outset of the job and periodic follow-up supervision.</td>
</tr>
<tr>
<td>4</td>
<td>(Falls somewhere between 5 and 3)</td>
</tr>
<tr>
<td>3</td>
<td>Very slim possibility of hiring this applicant. Believe that the applicant is lacking in many of the important skills and abilities required of the job and training would require an excessive amount of time.</td>
</tr>
<tr>
<td>2</td>
<td>(Falls somewhere between 3 and 1)</td>
</tr>
<tr>
<td>1</td>
<td>Definitely would not hire this applicant. Believe the applicant does not possess the skills and abilities required for the position.</td>
</tr>
</tbody>
</table>
APPLICANT EVALUATION FORM
PART TWO

Instructions. For the applicant reviewed, please indicate on each of the seven point scales how you would best characterize the individual on the following four dimensions.

OUTGOING/RESERVED

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Outgoing - Extremely interested in and responsive to others.</td>
</tr>
<tr>
<td>6</td>
<td>(Falls somewhere between 7 and 5)</td>
</tr>
<tr>
<td>5</td>
<td>Predominantly an outgoing person especially if in a comfortable environment. Enjoys quiet times alone.</td>
</tr>
<tr>
<td>4</td>
<td>(Falls somewhere between 5 and 3)</td>
</tr>
<tr>
<td>3</td>
<td>Predominantly a quiet and self-restrained person. Tends to be outgoing only around familiar people.</td>
</tr>
<tr>
<td>2</td>
<td>(Falls somewhere between 3 and 1)</td>
</tr>
<tr>
<td>1</td>
<td>Reserved - Extremely self-restrained person and tends to keep to oneself and avoid social relationships.</td>
</tr>
<tr>
<td>Score</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Dependable - Extremely reliable and trustworthy.</td>
</tr>
<tr>
<td>6</td>
<td>(Falls somewhere between 7 and 5)</td>
</tr>
<tr>
<td>5</td>
<td>Is reliable and trustworthy most of the time but must be given periodic reminders.</td>
</tr>
<tr>
<td>4</td>
<td>(Falls somewhere between 5 and 3)</td>
</tr>
<tr>
<td>3</td>
<td>Is unreliable and untrustworthy most of the time but periodically completes things with few or no reminders.</td>
</tr>
<tr>
<td>2</td>
<td>(Falls somewhere between 3 and 1)</td>
</tr>
<tr>
<td>1</td>
<td>Undependable - Extremely unreliable and untrustworthy.</td>
</tr>
<tr>
<td>Score</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>7</td>
<td>Patient - Possesses a high ability to endure strain, annoyance or provocation and the ability to quietly wait and remain calm.</td>
</tr>
<tr>
<td>6</td>
<td>(Falls somewhere between 7 and 5)</td>
</tr>
<tr>
<td>5</td>
<td>Possesses the ability to endure strain, annoyance or provocation and quietly wait and remain calm most of the time.</td>
</tr>
<tr>
<td>4</td>
<td>(Falls somewhere between 5 and 3)</td>
</tr>
<tr>
<td>3</td>
<td>Possesses a low level of tolerance to strain, annoyance or provocation and tends to be restless most of the time.</td>
</tr>
<tr>
<td>2</td>
<td>(Falls somewhere between 3 and 1)</td>
</tr>
<tr>
<td>1</td>
<td>Impatient - Possesses an extremely low level of tolerance and high level of restlessness.</td>
</tr>
</tbody>
</table>
### DECISIVE/INDECISIVE

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Decisive - Possesses a high ability to make a definite decision.</td>
</tr>
<tr>
<td>6</td>
<td>(Falls somewhere between 7 and 5)</td>
</tr>
<tr>
<td>5</td>
<td>Possesses the ability to make a definite decision most of the time but sometimes tends to sway in opinion.</td>
</tr>
<tr>
<td>4</td>
<td>(Falls somewhere between 5 and 3)</td>
</tr>
<tr>
<td>3</td>
<td>Possesses the inability to make a definite decision most of the time and tends to sway in opinion and put off decision making.</td>
</tr>
<tr>
<td>2</td>
<td>(Falls somewhere between 3 and 1)</td>
</tr>
<tr>
<td>1</td>
<td>Possesses an extreme inability to make a definite decision.</td>
</tr>
</tbody>
</table>
APPENDIX B

RESULTS TABLES
## TABLE 1

MEANS AND STANDARD DEVIATIONS OF THE DEPENDENT VARIABLE, DECISION TO HIRE, ACROSS TREATMENT GROUPS

<table>
<thead>
<tr>
<th>Condition</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low contact/Round eyes/Thick lips</td>
<td>12</td>
<td>5.25</td>
<td>1.05</td>
</tr>
<tr>
<td>Low contact/Round eyes/Thin lips</td>
<td>11</td>
<td>4.73</td>
<td>.91</td>
</tr>
<tr>
<td>Low contact/Narrow eyes/Thick lips</td>
<td>12</td>
<td>4.58</td>
<td>1.24</td>
</tr>
<tr>
<td>Low contact/Narrow eyes/Thin lips</td>
<td>11</td>
<td>4.91</td>
<td>.54</td>
</tr>
<tr>
<td>High contact/Round eyes/Thick lips</td>
<td>11</td>
<td>5.18</td>
<td>1.08</td>
</tr>
<tr>
<td>High contact/Round eyes/Thin lips</td>
<td>11</td>
<td>4.64</td>
<td>1.03</td>
</tr>
<tr>
<td>High contact/Narrow eyes/Thick lips</td>
<td>11</td>
<td>5.36</td>
<td>1.03</td>
</tr>
<tr>
<td>High contact/Narrow eyes/Thin lips</td>
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<td>5.05</td>
<td>.90</td>
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### TABLE 2

THREE-WAY ANALYSIS OF VARIANCE OF DECISION TO HIRE

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Shape (A)</td>
<td>.03</td>
<td>1</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>Lip Shape (B)</td>
<td>1.48</td>
<td>1</td>
<td>1.48</td>
<td>1.50</td>
</tr>
<tr>
<td>Job Type (C)</td>
<td>.90</td>
<td>1</td>
<td>.90</td>
<td>.91</td>
</tr>
<tr>
<td>A x B</td>
<td>1.76</td>
<td>1</td>
<td>1.76</td>
<td>1.78</td>
</tr>
<tr>
<td>A x C</td>
<td>1.76</td>
<td>1</td>
<td>1.76</td>
<td>1.78</td>
</tr>
<tr>
<td>B x C</td>
<td>.56</td>
<td>1</td>
<td>.56</td>
<td>.57</td>
</tr>
<tr>
<td>A x B x C</td>
<td>.48</td>
<td>1</td>
<td>.48</td>
<td>.49</td>
</tr>
<tr>
<td>Error</td>
<td>81.90</td>
<td>83</td>
<td>.99</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05
### TABLE 3

**CELL MEANS FOR ALL TREATMENT GROUPS**

<table>
<thead>
<tr>
<th>JOB TYPE</th>
<th>Computer Programmer</th>
<th>Hotel Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIP SHAPE</td>
<td>LIP SHAPE</td>
<td></td>
</tr>
<tr>
<td>EYE SHAPE</td>
<td>Thick</td>
<td>Thin</td>
</tr>
<tr>
<td>Round</td>
<td>5.25</td>
<td>4.73</td>
</tr>
<tr>
<td>Narrow</td>
<td>4.58</td>
<td>4.91</td>
</tr>
</tbody>
</table>
## TABLE 4
MARGINAL MEANS OF THE TWO-WAY MATRICES

### EYE SHAPE x LIP SHAPE

<table>
<thead>
<tr>
<th></th>
<th>Thick</th>
<th>Thin</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round</td>
<td>5.22</td>
<td>4.68</td>
<td>4.95</td>
</tr>
<tr>
<td>Narrow</td>
<td>4.97</td>
<td>5.00</td>
<td>4.99</td>
</tr>
<tr>
<td>Sum</td>
<td>5.10</td>
<td>4.84</td>
<td></td>
</tr>
</tbody>
</table>

### EYE SHAPE x JOB TYPE

<table>
<thead>
<tr>
<th></th>
<th>Computer Programmer</th>
<th>Hotel Manager</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round</td>
<td>4.99</td>
<td>4.91</td>
<td>4.95</td>
</tr>
<tr>
<td>Narrow</td>
<td>4.75</td>
<td>5.22</td>
<td>4.97</td>
</tr>
<tr>
<td>Sum</td>
<td>4.87</td>
<td>5.07</td>
<td></td>
</tr>
</tbody>
</table>

### LIP SHAPE x JOB TYPE

<table>
<thead>
<tr>
<th></th>
<th>Computer Programmer</th>
<th>Hotel Manager</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick</td>
<td>4.92</td>
<td>5.27</td>
<td>5.10</td>
</tr>
<tr>
<td>Thin</td>
<td>4.82</td>
<td>4.86</td>
<td>4.84</td>
</tr>
<tr>
<td>Sum</td>
<td>4.87</td>
<td>5.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>-------</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>1. OUT/RES</td>
<td>.29*</td>
<td>.18</td>
<td>.22*</td>
</tr>
<tr>
<td>2. DEP/UNDEP</td>
<td>--</td>
<td>.44*</td>
<td>.46*</td>
</tr>
<tr>
<td>3. PAT/IMPAT</td>
<td>--</td>
<td>.16</td>
<td>.26*</td>
</tr>
<tr>
<td>4. DEC/INDEC</td>
<td>--</td>
<td>--</td>
<td>.41*</td>
</tr>
</tbody>
</table>

*p<.05
<table>
<thead>
<tr>
<th>Condition</th>
<th>R</th>
<th>$R^2$</th>
<th>ADJ. $R^2$</th>
<th>SE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Variable Solution</td>
<td>.51</td>
<td>.26</td>
<td>.23</td>
<td>.86</td>
<td>7.54*</td>
</tr>
<tr>
<td>3 Variable Solution</td>
<td>.51</td>
<td>.26</td>
<td>.24</td>
<td>.85</td>
<td>10.09*</td>
</tr>
<tr>
<td>Dep/Undep Removed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Variable Solution</td>
<td>.49</td>
<td>.24</td>
<td>.22</td>
<td>.86</td>
<td>13.27*</td>
</tr>
<tr>
<td>Pat/Impat Removed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001
### TABLE 7
REGRESSION COEFFICIENTS AND SEMI-PARTIAL CORRELATIONS FOR EACH REGRESSION ANALYSIS OF DECISION TO HIRE

<table>
<thead>
<tr>
<th>Condition</th>
<th>REG. COEFF.</th>
<th>$sr^2$</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Variable Solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.17</td>
<td>.06</td>
<td>.46</td>
<td>2.30*</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>.05</td>
<td>.00</td>
<td>.11</td>
<td>.42</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>.15</td>
<td>.02</td>
<td>.10</td>
<td>1.44</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.26</td>
<td>.10</td>
<td>.09</td>
<td>2.99**</td>
</tr>
<tr>
<td>Constant</td>
<td>1.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Variable Solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.18</td>
<td>.06</td>
<td>.07</td>
<td>2.42*</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>.16</td>
<td>.04</td>
<td>.09</td>
<td>1.76</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.28</td>
<td>.13</td>
<td>.08</td>
<td>3.49**</td>
</tr>
<tr>
<td>Constant</td>
<td>1.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Variable Solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.20</td>
<td>.08</td>
<td>.07</td>
<td>2.68*</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.30</td>
<td>.14</td>
<td>.08</td>
<td>3.69**</td>
</tr>
<tr>
<td>Constant</td>
<td>2.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P < .05  **P < .001
### TABLE 8

**REGRESSION ANALYSIS WITH DEPENDENT VARIABLES, EYE SHAPE AND LIP SHAPE**

<table>
<thead>
<tr>
<th>Condition</th>
<th>R</th>
<th>$R^2$</th>
<th>ADJ. $R^2$</th>
<th>SE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Shape</td>
<td>.18</td>
<td>.03</td>
<td>-.01</td>
<td>.51</td>
<td>.70</td>
</tr>
<tr>
<td>Lip Shape</td>
<td>.09</td>
<td>.01</td>
<td>-.04</td>
<td>.51</td>
<td>.18</td>
</tr>
</tbody>
</table>

*p<.05*
**TABLE 9**

REGRESSION COEFFICIENTS AND SEMI-PARTIAL CORRELATIONS
FOR REGRESSION ANALYSES OF EYE SHAPE AND LIP SHAPE

<table>
<thead>
<tr>
<th>Condition</th>
<th>REG. COEFF</th>
<th>( sr^2 )</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Shape</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.01</td>
<td>.00</td>
<td>.04</td>
<td>.32</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>.09</td>
<td>.02</td>
<td>.07</td>
<td>1.19</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>-.02</td>
<td>.00</td>
<td>.06</td>
<td>-.30</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.01</td>
<td>.00</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>Constant</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lip Shape</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.03</td>
<td>.01</td>
<td>.05</td>
<td>.76</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>.00</td>
<td>.00</td>
<td>.07</td>
<td>-.02</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>.01</td>
<td>.00</td>
<td>.06</td>
<td>.11</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>-.02</td>
<td>.00</td>
<td>.05</td>
<td>-.43</td>
</tr>
<tr>
<td>Constant</td>
<td>.45</td>
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<td></td>
</tr>
</tbody>
</table>

*p<.05*
## TABLE 10

REGRESSION ANALYSIS FOR COMPUTER PROGRAMMER GROUP
WITH DEPENDENT VARIABLE, DECISION TO HIRE

<table>
<thead>
<tr>
<th>Condition</th>
<th>R</th>
<th>$R^2$</th>
<th>ADJ. $R^2$</th>
<th>SE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programmer</td>
<td>.44</td>
<td>.19</td>
<td>.11</td>
<td>.90</td>
<td>2.33</td>
</tr>
</tbody>
</table>

* $p < .05$
### TABLE 11

REGRESSION COEFFICIENTS AND SEMI-PARTIAL CORRELATIONS FOR COMPUTER PROGRAMMER GROUP REGRESSION ANALYSIS OF DECISION TO HIRE

<table>
<thead>
<tr>
<th>REG. COEFF.</th>
<th>$sr^2$</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out/Res</td>
<td>0.19</td>
<td>0.07</td>
<td>0.11</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>-0.06</td>
<td>0.00</td>
<td>0.16</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>0.17</td>
<td>0.04</td>
<td>0.14</td>
</tr>
<tr>
<td>Dec/Indec</td>
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<td>0.04</td>
<td>0.12</td>
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<td>Constant</td>
<td>2.27</td>
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<td></td>
</tr>
</tbody>
</table>

*p < 0.05
# Table 12

## Regression Analysis for Front Desk Hotel Manager Group

With Dependent Variable, Decision to Hire

<table>
<thead>
<tr>
<th>Condition</th>
<th>R</th>
<th>R^2</th>
<th>ADJ. R^2</th>
<th>SE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Variable Solution</td>
<td>.58</td>
<td>.34</td>
<td>.27</td>
<td>.86</td>
<td>5.17*</td>
</tr>
<tr>
<td>3 Variable Solution Pat/Impat Removed</td>
<td>.58</td>
<td>.33</td>
<td>.28</td>
<td>.85</td>
<td>6.81**</td>
</tr>
<tr>
<td>2 Variable Solution Dec/Indec Removed</td>
<td>.56</td>
<td>.32</td>
<td>.28</td>
<td>.85</td>
<td>9.66**</td>
</tr>
</tbody>
</table>

*p<.01  **p<.001
### TABLE 13

REGRESSION COEFFICIENTS AND SEMI-PARTIAL CORRELATIONS FOR FRONT DESK HOTEL MANAGER GROUP REGRESSION ANALYSIS OF DECISION TO HIRE

<table>
<thead>
<tr>
<th>Condition</th>
<th>REG. COEFF.</th>
<th>sr²</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Variable Solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.19</td>
<td>.03</td>
<td>.16</td>
<td>1.20</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>.19</td>
<td>.02</td>
<td>.19</td>
<td>1.01</td>
</tr>
<tr>
<td>Pat/Impat</td>
<td>.11</td>
<td>.01</td>
<td>.16</td>
<td>.71</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.21</td>
<td>.03</td>
<td>.18</td>
<td>1.15</td>
</tr>
<tr>
<td>Constant</td>
<td>1.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Variable Solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out/Res</td>
<td>.21</td>
<td>.05</td>
<td>.15</td>
<td>1.39</td>
</tr>
<tr>
<td>Dep/Undep</td>
<td>.24</td>
<td>.05</td>
<td>.17</td>
<td>1.46</td>
</tr>
<tr>
<td>Dec/Indec</td>
<td>.19</td>
<td>.03</td>
<td>.18</td>
<td>1.04</td>
</tr>
<tr>
<td>Constant</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Variable Solution</td>
<td></td>
<td></td>
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*p<.05
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