THE EFFECTS OF BODY CHARACTERISTICS ON PERCEIVED COMPETENCE

By

Courtney Michele Kneip

Approved:

_____
Bart Weathington
UC Foundation Associate Professor of Psychology
(Director of Thesis)

_____
Brian O'Leary
Associate Professor of Psychology
(Committee Member)

_____
Michael Biderman
Professor of Psychology
(Committee Member)

_____
Herbert Burhenn
Dean of the College of Arts and Sciences

_____
A. Jerald Ainsworth
Dean of the Graduate School

THE EFFECTS OF BODY CHARACTERISTICS ON PERCEIVED COMPETENCE

By

Courtney Michele Kneip

A Thesis
Submitted to the Faculty of the
University of Tennessee at Chattanooga
in Partial Fulfillment of the Requirements
for the Degree of Master of Science
in Psychology

The University of Tennessee at Chattanooga
Chattanooga, TN

May 2011

ABSTRACT

The purpose of this study was to examine the effect of different body characteristics on perceived competence; specifically, height, weight, and physical appearance. Participants were asked to login to their online school accounts and were then directed to a specific survey. All surveys consisted of the same questions, but included a different photograph. Participants then listened to a pre-recorded speech after being told that the individual in the photograph was the individual giving the speech. All surveys asked participants to rate judgments of height, weight, and physical appearance, compared to the average American. The speech provided the basis for the competence and credibility ratings. The data was analyzed using an ANOVA. The original results produced no significant results, but based on the post hoc tests, all three hypotheses were generally supported. These findings suggest that height, weight, and appearance have an effect on judgments of perceived competence.

DEDICATION

I would like to dedicate this thesis to my parents, Robert and Cindy Kneip, and my sister and brother-in-law, Katie and Ben Bryan, for all their love and support during the past two years. I would also like to dedicate this thesis in loving memory of Louis and Zelma Saladino, Robert and Patricia Kneip, and Evan Wesley Bosworth.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my advisor Dr. Bart Weathington for all the hours he spent assisting me with this thesis. I would also like to thank Dr. Brian O'Leary and Dr. Michael Biderman for serving on my committee. Finally, I would like to thank The University of Tennessee at Chattanooga's Industrial and Organizational Psychology Class of 2011 for their assistance with this project as well.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

The Effects of Body Characteristics on Perceived Competence

Discrimination can be defined as differential treatment based on an attribute possessed by an individual (Eagly. Ashmore, Makhijani, & Longo, 1991; Brunello & D'Hombres, 2006) and can occur in the workplace when performance is based on factors not related to the job (Roehling, 1999). Discrimination can be categorized in two ways: that which is fair and necessary and that which is unfair or biased (Ding & Stillman, 2005). According to Avery and Faley (1992), unfair discrimination occurs when members of an identifiable group have a lesser chance of being selected for a job even though their chances of successfully performing that job are just as high as a different group. Discrimination may result in negative consequences for both individuals and organizations. Not only may companies miss out on hiring and promoting effective employees, but those being discriminated against can face severe economic, social, and psychological effects (Ding & Stillman). The organization also faces harsh legal consequences for discriminating against individuals. Although limits on monetary payments exist depending on the size of the organization, these penalties and fines can be quite costly. For example, a company with 101-200 employees could pay up to $100,000 (U.S. Equal Employment Opportunity Commission, b).

A series of civil rights laws including, the Civil Rights Act of 1964, Americans with Disabilities Act of 1990, and Age Discrimination in Employment Act of 1967, have been enacted to protect individuals in certain groups against discrimination in the workplace. Explicitly protected under these acts is discrimination based on race, sex, color, national origin, religion, age, and disability (U.S. Equal Employment Opportunity Commission, a). However, not all actions that may be perceived as unfair are protected and there is a distinction between discrimination and bias.

Bias can occur either intentionally or inadvertently. Intentional bias is hard to detect while inadvertent bias is more common. Inadvertent bias is commonly called rater error. Homogeneity and halo biases are examples of inadvertent bias (Gatewood, Feild, & Barrick, 2008). Homogeneity bias occurs when individuals evaluate those who are similar to them more favorably. Halo bias arises when a positive or negative fact is learned about a person so all other information gathered is aligned with the initial observations (Thompson, 2008).

Beyond the legally defined categories, discrimination and bias can be based on many other factors such as weight, height, and physical appearance. Discrimination based on these factors may be harder to detect than that based on more overt categories, such as age or race. As Marlowe, Schneider, and Nelson, (1996) contend, attractiveness discrimination may be harder to detect because of its subtlety. Research suggests that weight discrimination is present in American workplaces (Roehling, Roehling, & Odland, 2008). Physical appearance is thought to influence social acceptance, persuasive power, and job success which can be seen in many everyday life experiences (King & Manaster, 1977).

All aspects of employment are subject to weight, height, or appearance discrimination, including interviewing, evaluations, team projects, subordinate-supervisor interactions, customer

2

service, and coworker interactions (Gilmore, Beehr, & Love, 1986; Shapiro, King, & Quinones, 2007: Solnick & Schweitzer, 1999). However, weight, height, and appearance discrimination may be particularly problematic when performance is being assessed (Vilela, Gonzalez, Ferrin, & Araujo, 2007) because bias and discrimination may cause unfair assessments. From a monetary and career progression standpoint, performance evaluations are important because they influence salary and promotion decisions (Ambady & Rosenthal, 1993). The purpose of a performance appraisal is to correctly identify and reward good employees; however, some evidence suggests that overweight employees are less likely to receive a promotion (Shapiro et al.). The impact of situational, social, and affective components on the appraisal of performance is not fully understood (Vilela et al.). In today's society, physical appearance not only affects how others view us, but how we view ourselves. Stereotypes are a way in which to explain our personal views and the views of others.

Stereotypes

A stereotype can be defined as "a knowledge structure containing a perceiver's beliefs about the characteristics and behaviors of a particular social group" (Hamilton & Trolier, 1986, p. 137). Stereotypes are instinctively activated (Wigboldus, Dijksterhuis, & van Knippenberg, 2003) and maintained overtime (Lyons & Kashima, 2003). The activation of a stereotype by a certain trait makes information confirming a stereotype easier to access while hindering access to information which disconfirms the stereotype (Wigboldus et al.). Information which confirms stereotypes is better processed and saved than information going against the believed stereotype (Hamilton & Trolier). Stereotype-consistent information is more likely to be taken as truthful (Lyons & Kashima). Individuals will share stereotype-consistent information when they believe

others possess little knowledge about the stereotype (Hamilton & Trolier); however, when an individual believes the group has a lot of knowledge regarding the stereotype, more information disconfirming the stereotype may be shared (Lyons & Kashima).

Three main explanations exist regarding stereotypes; cognitive, psychodynamic, and sociocultural (Kurcz, 1995). Psychodynamic is sometimes referred to as the motivational theory of stereotypes. The psychodynamic approach is based on the intrinsic needs of humans who form stereotypes about others to improve their own self-image and esteem (Hamilton & Trolier, 1986). The sociocultural approach focuses on social learning through which stereotypes are gained and maintained from social influences, such as media and significant others (Hamilton & Trolier). The cognitive approach views stereotypes as a mental representation of the world. The main features of a stereotype include simplification, over-generalization, and rigidity and resistance to change (Kurcz, 1995).

The cognitive approach, which connects stereotypes with the structure and functioning of the mind, has been the dominant model since the early seventies. During information processing, stereotypes represent a categorization of external and internal information and enable humans to simplify social information (Kurcz, 1995). Humans are often faced with too much information and need to find ways to simplify the information for processing. One way this is done is by looking for commonalities among individuals and then grouping similar individuals together (Hamilton & Trolier, 1986).

Two outcomes result from grouping individuals together. First, members of the same group are thought to be more similar to each other by outsiders and members belonging to different groups are perceived as being more different from each other by those outside the group. Second, this grouping allows perceivers to make assumptions about a group member's

behavior (Hamilton & Trolier, 1986). According to the cognitive approach, when a person is perceived as belonging to an outside group, positive behavior is attributed to situational conditions while negative behavior is attributed to the internal nature of group members. The opposite is true for one's own group; positive behavior is internally attributed while negative behavior is externally attributed. Outside groups are also thought to be less differentiated than the individual's own group (Kurcz, 1995; Hamilton & Trolier). The cognitive approach suggests a clear preference for one's own group exists (Hamilton & Trolier). Studies have shown that even when a relationship does not exist between the information presented and group membership, participants not only perceived a relationship, but also believed the relationship to be consistent with stereotypic beliefs (Hamilton & Trolier).

The psychodynamic, or motivational, approach views stereotypes as a way of preserving positive self-images. Stereotypes maintain positive self-esteem and reduce any sense of inadequacy. When a group can be seen as lower than, or inferior to an individual's own group, then that individual will feel better about himself and his group (Kurcz, 1995; Hamilton & Trolier, 1986). If a group to be judged has a significant similarity to one's own group, then the psychodynamic approach says those similarities will become the focus of what is attended to by an individual (Brewer, 1979). Schaller (1992) argues that the psychodynamic approach joins with the cognitive approach because individuals want to see their own group in a favorable way; judgments and behaviors towards in-groups and out-groups are affected to preserve this favorable image (Schaller).

The sociocultural approach to stereotyping stresses the importance of socialization in stereotypes (Kurcz, 1995). Socialization acts as a way to present a person with the roles he or she will be expected to fulfill in their society (Kurcz). Stereotypes are thought to be a type of cultural

5

knowledge and therefore passed along through culture (Devine, 1989). Content for stereotypes are learned through socialization, media outlets, etcetera (Hamilton & Trolier, 1986). Stereotypes are then maintained through reinforcement of stereotypic beliefs by significant others and other important references (Hamilton & Trolier). The sociocultural approach interacts with the cognitive approach (Kurcz); persons are judged by the group they belong to and the information known about that group.

Implicit Personality Theory

Implicit personality theory is one explanation for the influence of stereotypes on the perceptions of others (Jackson, Hunter, & Hodge, 1995). Implicit stereotypes are automatic associations and occur without an individual's knowledge (Rudman, Ashmore, & Gary, 2001; Blair, Ma, & Lenton, 2001), suggesting individuals do not know they possess implicit associations. Rudman et al. state that implicit stereotypes can either be acquired automatically or learned through a culture's tendency to favor one group over another. For an implicit association to be activated, a cue must be presented which in turn activates an association the perceiver already possesses. Implicit Personality theory suggests that stereotyping begins with an implicit activation and ends with an explicit action, such as judgment (Blair et al.). Stereotypes are implicit personality theories because group membership is a characteristic associated implicitly with other characteristics (Jackson, Hunter, & Hodge, 1995). Rudman et al. also suggest that implicit bias is associated with perceptions of anxiety and threat. Blair et al. examined how mental imagery might moderate the affect of implicit stereotypes.

Mental imagery is a conscious decision to create a representation of a person, object, or event in the "mind's eye" (Blair et al., 2001) and has been shown to have a powerful impact on

learning, decision making, and behavior. It also increases the accessibility of related representations. For example, when first asked to imagine a car wreck individuals subsequently overestimated the likelihood of such an event occurring (Blair et al.). Mental imagery has been found to be a powerful tactic in controlling emotions (Ceschi, Banse, & Van der Linden, 2009).

Blair et al. (2001) explored implicit stereotypes through five experiments. In each experiment, one group of participants was asked to imagine a counterstereotypical image, such as a "strong female". Counterstereotypes are not as easily accessible as stereotypical images and are, therefore, not as likely to implicitly influence judgments or behaviors. Their results suggest that mental imagery, such as counterstereotypes, can lessen the impact of implicit stereotypes. Blair et al. suggest that instead of focusing on reducing stereotypes, the focus should be on strengthening counterstereotypical images. Rudman et al. (2001) also found that implicit prejudices can be changed through diversity training. Consistent with Wigboldus et al. (2003), when a stereotype is triggered prior to a behavior, stereotype-consistent information will be more available while stereotype-inconsistent information will be less available.

Self-fulfilling Prophecies

Self-fulfilling prophecies also interact with and are key to understanding stereotypes. Self-fulfilling prophecies are defined as a phenomenon where one individual's expectations for another lead to behaviors which in turn cause the expectations to come true, thus confirming the individual's original beliefs (Shapiro et al., 2007; Hamilton & Trolier, 1986). Two behavioral effects are derived from self-fulfilling prophecy. First, stereotypes influence how a perceiver interacts with the stereotyped group. Second, the perceiver's own behaviors draw out behaviors from the stereotyped group that confirms the perceiver's original beliefs. There are two other

points regarding self-fulfilling prophecy which are important to note. The first point is that perceivers are unlikely to be aware of their role; they do not realize that their beliefs influence how they interact with the stereotyped group. The second point is that perceivers are highly aware that the stereotyped groups' behavior is exactly what they expected it to be (Hamilton & Trolier). In the work place, expectations manipulate manager's and other leader's actions and treatment of subordinates. Eventually, the actions and treatment from leaders will increase or decrease a subordinates' performance (Shapiro et al.).

Roehling et al. (2008) discussed self-fulfilling prophecy as one of the theoretical reasons for weight-personality relationships. Expectations and reactions by others may have a negative effect on personality development. Overweight individuals may be treated poorly based on stereotypes and have lower expectations placed on them causing the overweight individual to develop less agreeableness, extraversion, conscientiousness, and emotional stability (Roehling et al.).

It is important to note that the cognitive, social, and psychodynamic processes work together to form stereotypes. None of the approaches work alone (Hamilton & Trolier, 1986). As Ida Kurcz wrote, "Stereotypes existed in the past, they exist today, and they will continue to exist" (Kurcz, 1995, p. 120). Stereotypes regarding weight, height, and appearance will continue to exist, but by providing employees and employers with information, these stereotypes can be exploited less in the workplace.

Weight

As discussed earlier, one characteristic which has been shown to elicit unfair discrimination is being overweight (Ding & Stillman, 2005). In 2007, Shapiro et al. reported that

obesity affects over half of American adults. A more recent report published in the New York Times, states that obesity rates have leveled out at nearly 34% (Belluck, 2010). In fact, America has been referred to as "the fattest nation on the planet" (Roehling et al., 2008, p. 396). Research suggests that overweight individuals are perceived in a more negative light by the rest of society (Surmann, 1997). Overweight individuals may automatically be viewed negatively because they are presumed to have more negative character flaws (Ding & Stillman). Those who are not overweight believe being overweight is a choice or that individuals are overweight due to a lack of will (Roehling et al.; Ding & Stillman). Overweight individuals are often blamed for their condition because of its perceived controllability (Shapiro et al.). According to a study conducted in New Zealand, overweight individuals are a top five group facing discrimination ahead of disabled persons, homosexuals, older persons, and women (Ding & Stillman). Many people believe overweight individuals are less conscientious, less agreeable, less emotionally stable, and less extraverted than normal weight persons (Roehling et al.). Contrary to the stereotype, however, Roehling et al. found no evidence that overweight individuals are less agreeable, extraverted, conscientious, or neurotic.

Roehling et al. (2008) examined the relationship of weight to personality characteristics. As stated earlier, one thought as to why stereotypes remain is because of the self-fulfilling prophecy; individuals will behave based on what others expect of them. A second thought is based on the idea of body weight being controllable. The belief of controllability leads to attributions of why the individual is overweight, such as laziness. These attributions provide the basis for a negative implicit personality theory. Implicit personality theory states that, because an individual possesses one set of characteristics, they must, therefore, have other related characteristics as well. Finally, the implicit personality theory forms illusory correlations which

9

happen when a person believes a relationship exists between two variables when in actuality there may be no relationship. Figure 1, from Roehling et al. (2008), depicts this process.
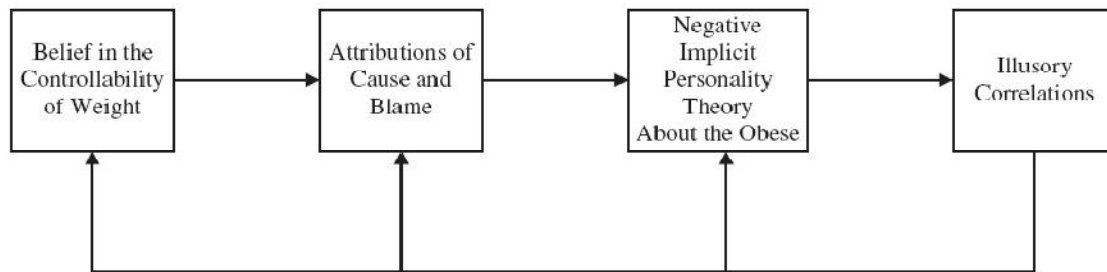

Figure 1 Roehling et al.'s Model of Negative Stereotypes Regarding Obesity

The idea that overweight individuals possess less desirable personality traits (Roehling et al., 2008) spills over into the area of hiring. Overweight employees are considered less desirable because they are perceived as less competent, productive, and industrious; therefore, overweight employees are less likely to receive a promotion (Shapiro et al., 2007). Ding and Stillman (2005) showed that overweight individuals were discriminated against in the hiring process. Their results indicated that resumes of overweight individuals were ranked lower even though all resumes were equally qualified for the job. Surmann (1997) found somewhat contradicting evidence when studying the effects of weight, race and gender on perceived competence. She asked participants to read a book excerpt which was attached to a photograph. The photographs varied on gender, race, and weight. Participants then rated each excerpt on characteristics of writing competency; style, clarity, logic, and overall writing ability/competency. Surmann believed that overweight, African-American females would receive the lowest ratings; however, no significant differences were found between overweight and normal weight individuals and

overweight individuals were actually rated higher in logic than normal weight individuals. However, Surmann's study involved writing competency which may provoke less stereotyping than the idea of hiring an individual as in Roehling et al.'s (2008) study.

Training is an integral part of the work place. When negative expectations are held by the trainer about a trainee, a self-fulfilling prophecy can emerge and affect the training outcomes. Results from Shapiro et al. (2007) showed that female trainers expected less from female, overweight trainees and also rated the trainee more negatively. Female trainers also evaluated the training experience as more negatively when the trainee was thought to be an obese female. Shapiro et al. expected overweight trainees would performer more poorly than normal weight individuals because of negative expectations; however, normal weight and overweight trainees performed equally well. These results are important for performance evaluations because they show that weight does not necessarily affect one's ability to perform well in most work situations.

Monetary compensation is another area where discrimination based on weight can take place. Weight has been found to be negatively related to earnings suggesting that overweight employees earn less over time based mostly on their weight (Judge & Cable, 2004). Brunello and D'Hombres (2006) found similar results in European countries. They found that employees with higher BMI received lower wages than employees with lower BMI. DeBeaumont (2009) studied the relationship between weight and wages in females and found that obese women in customer service jobs had significantly lower wages, consistent with the obesity stigma. The same results were obtained for obese women in the customer service industry who work from home, suggesting that discrimination was not coming from the employer, but from the customer (DeBeaumont).

Based on the above research, the following hypothesis regarding weight and competence is proposed:

H1: Overweight individuals will be rated as less competent than normal weight individuals.

Height

"There seems to be a societal impression that taller people are more successful in life" (Judge & Cable, 2004, p. 428). Taller individuals are judged as being more persuasive, more attractive as companions, and more likely to rise to leadership positions. Height is of particular interest in the workplace where power and persuasion are most significant (Judge & Cable). Judge and Cable reported evidence that many employers believe the height of an individual is linked to their success in the workplace. Height was once openly taken into account in hiring situations and this may still be the case, at least implicitly (Judge & Cable).

The relationship of size to status has been studied at length. The size of an object is related to its perceived value. As the value of an object increases, the perceived size of the object will also increase; however, this is not the case when it comes to weight (Higham & Carment, 1992). Bruner and Goodman (1947) did an experiment involving ten year old children. The children were asked to indicate with a changeable light source, how large certain coins or objects were. In all cases, the coins were judged to be larger than the gray, cardboard discs used by the control group. Also, the more valuable the coin, the larger the deviation between perceived size and actual size was (Bruner & Goodman).

This logic applies to people as well. An individual's authority affects perceived ratings of height (Higham & Carment, 1992). Dannenmaier and Thumin (1964) found that the inclination

to overestimate height is related to authority status; directors at a school were judged to be taller than students because of their authority. Higham and Carment examined the effects of height in the 1988 Canadian federal election. Higham and Carment asked participants to judge the height of the three candidates both before and after the election results were announced. Subsequent to the result announcement, the winner was judged to be taller than the before condition. The losers were both judged to be shorter after the results than the before condition (Higham & Carment). Berkowitz, Nebel, and Reitman (1971) also studied the effects of height during a New York mayoral race. Their results showed that the winner was judged to be taller than the loser. Berkowitz et al. also suggested that voters would be more likely to vote for the candidate most similar in height to themselves; taller voters would vote for the taller candidate while shorter voters would vote for the shorter candidate. The results generally supported this notion; however, while taller voters did vote more often for the taller candidate, shorter voters were pretty evenly split between the taller and shorter candidates. The shorter voters were attracted to the taller candidate most likely because he was tall and, therefore seemed more authoritative; however, this goes against Berkowitz et al.'s original thought that voters would vote for candidates most similar to themselves.

Employees who are taller may be viewed as more "valuable" to the organization and therefore, receive higher performance ratings. Judge and Cable (2004) completed four experiments to test the relationship of height and earnings. Height and age were both found to positively predict earnings suggesting that taller employees have higher salaries. Based on their results, Judge and Cable reported that an individual who was 72 inches tall could earn up to $5,525 more per year than an individual who is 65 inches tall.

Judge and Cable (2004) proposed a theoretical model to explain why the relationship between height and success (see Figure 2). The model proposes that height affects social esteem and self-esteem, which in turn affect subjective and objective outcomes. Social esteem refers to how positively others regard another person, and evidence suggests that taller persons are held in higher regard than shorter persons. Self-esteem refers to how an individual views themselves. Subjective outcomes come from how others rate an individual while objective outcomes are more easily measured without bias. Judge and Cable's meta-analysis indicated that height is related to leader emergence, self-esteem, and subjective outcomes. Height is positively related to leader emergence and subjective outcomes. These results then suggest that taller individuals may be given higher performance ratings or evaluations due largely to their height. One important detail to note is that height advantages do not seem to be linked to intelligence (Judge & Cable) meaning taller individuals are not significantly more intelligent than their shorter counterparts.
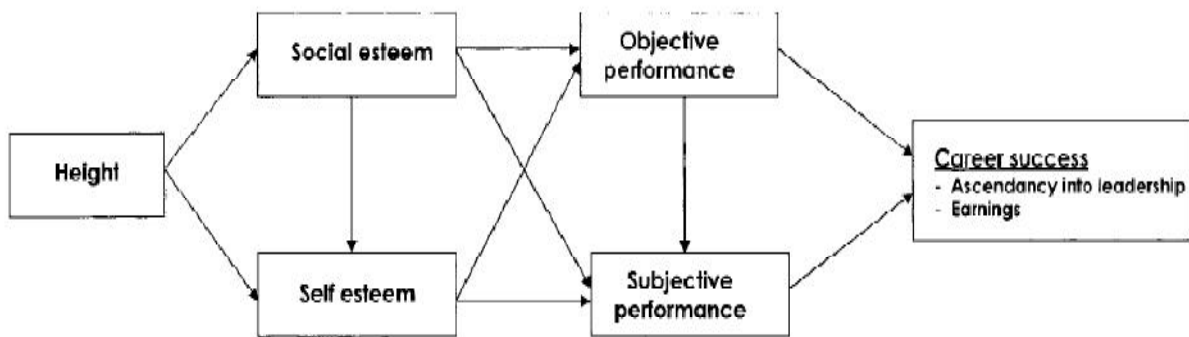

Figure 2 Theoretical Model from Judge and Cable (2004).

Regarding leader emergence, a study of West Point graduates showed that the shortest men were least represented in the highest military ranks (Mazur, Mazur, & Keating, 1984). The

taller an individual is, the more they may be viewed as a leader which can in turn affect their performance rating.

H2: Taller individuals will be judged as more competent than shorter individuals.

Appearance

Research on physical attractiveness has been given relatively little attention with regards to the work place (Bowling, Beehr, Johnson, Semmer, Hendricks, & Webster, 2004) although more research has been done in non work situations. For example, Lemay, Clark, and Greenberg (2010) found that participants assigned more desirable interpersonal traits to more physically attractive individuals. Evidence was also found the physical attractiveness evokes the desire to develop and continue close relationships with those who are physically attractive. What little research does exist shows that "what is beautiful is good" (Dion, Berscheid, & Walster, 1972, p. 285), when people's perceptions are involved. Physical appearance may be the strongest factor affecting judgments and the hardest bias to detect (Marlowe, et al., 1996). Attractive individuals are thought to possess positive characteristics, such as positive personality traits and successful life outcomes (Eagly, Ashmore, Makhijani, & Longo, 1991). Physical attractiveness may make others feel more positive towards the attractive person (Bowling et al.). Gilmore et al. (1986) stated that "overall physical attractiveness is often an advantage" (p. 104). Physically attractive persons are considered more productive even when their productivity matches that of a less attractive person (Solnick & Schweizter, 1999). Although in some jobs physical attractiveness could plausibly be a job related factor, such as in sales (Gilmore et al.), physical attractiveness is not a factor in all jobs, and thus causes some employees to be treated unfairly.

Status Generalization Theory is one explanation used to explain the attractiveness bias. The theory states that external status characteristics are used to make expectations in regard to performance even without any previous link between performance and the status characteristic. Physical attractiveness is an external status characteristic. Attractiveness influences performance expectations with no regard to whether attractiveness actually affects performance (Jackson et al., 1995).

Eagly et al.'s (1991) meta-analysis, found that when more information is known about an individual, there is a decrease in the effect of attractiveness on judgments of competence. However, Jackson et al. (1995) observed that definitive information regarding competency did not entirely eliminate attraction bias. Jackson et al. stated "explicit information about an employee's competence may not be enough to overcome the biasing effects of attractiveness" (p. 117). Marlowe et al. (1996) found that the more experience a manager has, the less likely appearance will come into play. In their study, managers with little experience rated attractive candidates as most suitable for hire. For managers with the most experience, little evidence regarding appearance bias was found. However, less attractive women were consistently at a disadvantage with all levels of experience (Marlowe et al.).

Attractive individuals are deemed more desirable to be around (Bowling et al., 2004) and judgments of attractive individuals are more favorable than unattractive individuals (Eagly et al., 1991; Vilela et al., 2007). However, Eagly et al. found that physical attractiveness has only a moderate relationship with intellectual competence. Even though only a moderate relationship was found, a positive relationship still exists between positive judgments and physical attractiveness. Jackson et al. (1995) found that physical attractiveness was not related to actual

competence; however, Jackson et al. did find that physically attractive individuals were perceived as being more competent.

Research indicates that the physical attractiveness of a person does have a significant impression on the judgment and behavior of others (Vilela et al., 2007). Impressions of others, even when there is little interaction, can be surprisingly accurate (Ambady & Rosenthal, 1993). Vilela et al. found that the supervisor's liking of an employee moderates the relationship of physical attractiveness to performance appraisal ratings. Although physical attractiveness does not have a direct relationship to performance appraisal ratings, an effect is still going to be seen because physical attractiveness has a positive relationship to friendliness and liking (Vilela et al.). Ambady and Rosenthal also reported that physical attractiveness is related to sociability and social competence. Together these findings suggest that individuals seen as more attractive are also seen as friendlier, more likeable, and more sociable.

The link between physical attractiveness and positive judgments is one that can influence hiring, promotion, and salary decisions. Research shows that interview evaluations are influenced by characteristics such as first impressions, stereotypes, sex, age, and visual cues (Gilmore et al., 1986). Attractive persons usually do better in the labor markets (Solnick & Schweitzer, 1999). In fact, in a study by Gilmore et al. applicants who were deemed attractive were thought to have a more suitable personality for the job, were expected to be better performers, and were more likely to be hired than those applicants deemed less attractive. Marlowe et al. (1996) found that attractive applicants are usually favored over unattractive applicants in hiring decisions, competency and likability ratings, in salary and promotion recommendations, and evaluations of career potential, even when both groups are equally qualified. Attractive individuals tend to receive higher salaries than their less attractive

counterparts (Solnick & Schweitzer). Solnick and Schweizter's study found that attractive participants "earned" 8 to 12% more than unattractive participants. In the case of West Point graduates, facial dominance, which could also be called handsomeness, was related to promotions especially in the junior and senior year. FACE, the measure of handsomeness, was less related to rank in subsequent years which may be due to the decrease in facial handsomeness as one ages (Mazur et al., 1984).

Ambady and Rosenthal (1993) reported that physical attractiveness had a small effect on judges' ratings of teacher effectiveness. Again these findings were small; however, they do exist leaving room for the notion that physical attractiveness can influence performance appraisals. In one study, a high school principal rated teachers in his school and no effect was seen for physical attractiveness (Ambady & Rosenthal). This can possibly be the case because the high school principal does have more interaction with teachers in his school. As more information about a person becomes available, physical attractiveness has less influence (Ambady & Rosenthal; Eagly et al., 1991).

One aspect of attractiveness is hair color. Hair color may be one of the most dominant symbols of identity because it is public and personal. Stereotyping theories suggest that people are jealous yet respectful of high status individuals, but they do not like them. Low status individuals on the other hand, are disrespected yet liked (Takeda, Helms, & Romanova, 2006). Those who are disrespected are thought to be incompetent while those who are respected are thought to be more competent.

Takeda et al. (2006) examined hair color and its affect on reaching the CEO level of an organization. Their belief was that blondes, while well liked, would be considered less competent and therefore underrepresented in CEO positions. Redheads, considered less likeable and

18

therefore more competent, would be well represented in CEO positions. The CEOs of the top 500 companies in the UK were researched for hair color. Of those CEOs, 25 (5%) were blonde and 20 (4%) were redheads (Takeda et al.). Based on percentages of the UK population, Takeda et al. found that blondes were underrepresented and redheads were overly represented. These results suggest that although it is done unconsciously, hair color does seem to play a role in who is promoted to CEO levels in the United Kingdom.

Appearance can also constitute the type of clothing an individual wears. Glick, Larsen, Johnson, and Branstiter (2005) studied how dress can affect perceived competence and ability; specifically "sexiness" of attire. Glick et al. stated two reasons why differentiating between physical attractiveness and appearance is important. First, men and women are both evaluated on physical attractiveness, but appearance, in this case dress, is more likely to be problematic for women. The reason for this is due to uniformity of men's work attire. The second reason is physical attractiveness is relatively hard to alter compared to the ease of altering one's attire or appearance (Glick et al.). Previous research has found that men who are groomed to view women in terms of sexuality rate those women as less competent (Rudman & Borgida, 1995).

Women who are put in the sexy subgroup (i.e. wearing low-cut shirts or tight skirts) are considered to possess more feminine traits which equates to being seen as less competent or a poorer match for higher status jobs (Glick et al., 2005). The results from Glick et al.'s study showed participants rated the female manager as less competent and less intelligent than the female manager who dressed more conservatively. Participants also associated the sexy, female manager with more negative emotions and less positive emotions (Glick et al.).

Hypothesis three evolved from the research on appearance and competence.

H3: Individuals rated higher in appearance will be rated as more competent than individuals rated lower in appearance.

CHAPTER II

METHOD

Participants

The sample consisted of 163 students from a mid-sized university in the southern United States. Three participants were not included in the analyses because they had incomplete data. One hundred and three participants were female and the remaining 57 were males. The sample consisted of 112 Caucasians, 38 African-Americans, and 10 "other". Age ranged from 18-22 for 138 participants. The remaining 23 ranged in age from 23 to 55 with the average age being 21.86 years. Year in school broke down in the following way: 35 seniors, 42 juniors, 38 sophomores, and 46 freshmen. Sixty-one participants listed they were employed, 67 listed they were unemployed, and 31 listed they were students

Procedure

Participants reported to a specified computer lab prior to the start of the study. Upon entering the computer lab, students were asked to sign the informed consent document and login to their online school account. Once logged in, students were asked to self-enroll into the survey space. By having participants self-enroll, the names of participants would be kept anonymous. Each participant received a card indicating which survey they would take and the password for their specified survey. The first eight participants each viewed a different photograph. Starting

20

with the ninth participant, the photograph conditions repeated themselves. There were eight photographic conditions, tall, overweight, attractive; short, overweight, attractive; tall, overweight, unattractive; short, overweight, unattractive; tall, normal weight, attractive; short normal weight, attractive; tall, normal weight, unattractive; short, normal weight, unattractive. In order to keep race and gender constant, all eight photographs were of Caucasian females. All participants listened to the same pre-recorded speech. After the speech finished playing, participants were told they could complete the survey assessing the height, weight, and appearance of the photograph and competency based on the speech.

Color photographs depicting the head and shoulders are commonly used in other research studies (Bowling et al., 2004).; however, the photographs used in this study were full length or of an individual sitting to allow participants to get a better feel for the individual's height, weight, and appearance (Glick et al., 2005). Color stimuli have been shown to relate significantly to observable results, but color stimuli are more vivid and therefore more realistic (Eagly et al., 2004). The realistic factor is important since we want to generalize the results to more realistic settings.

The photographs were judged prior to their use by graduate students at the university. These judges were Industrial and Organizational Psychology graduate students who did not participate in the actual experiment. The judges rated the attractiveness, weight and height of multiple photographs to determine which photographs best represented the eight conditions.

Multiple speeches were also rated prior to the study. The judges were again Industrial and Organizational Psychology graduate students. The judgments were used to determine which speech should be used in the final study.

Measures

Copies of all measures are included in Appendix A and B

Height. Height was a measure of participants' perceptions based on the photograph. Height was defined as being taller than the average female. The average height for an American female is roughly five feet three inches (Center for Disease Control, 2009). The survey asked participants to indicate how the individual in the photograph compared to the height of an average female. The response options included tall, average, and short.

Weight. Weight was a measure of participants' perceptions based on the photograph. Weight was defined as being more overweight than the average female. The average American female weighs around 164.7 pounds (Center for Disease Control, 2009). The survey again asked participants how the individual in the photograph compared to the weight of an average female. The response options for this question included overweight, average weight, and underweight.

Appearance. Appearance was a measure of participants' perceptions based on the photograph. Participants completed one question asking how attractive the individual in the photograph was on a scale of 1 to 7, with 1 being "very unattractive" and 7 being "very attractive".

Competence. The competence measure measured how competent the individual in the photograph appeared to be based on the recorded speech. The survey assessed competence based on eloquence, clarity, intelligence, logic, efficiency, and likability (Surmann, 1997; Glick et al.,

2005). A scale of one to seven, with 1 being "least descriptive of the speaker" and 7 being "most descriptive of the speaker", was used to assess the above characteristics. The reliability of the competence measure $\alpha = .866$ suggesting that this measure has good reliability.

Credibility. A credibility measure was also included to test the credibility of the speech (Sullivan, Weathington, Metzger, Warren, 2010). The credibility measure assessed the following characteristics; competency, honesty, certainty, knowledge, assertiveness, intelligence, honor, kindness, accuracy, expertise, reliability, training, logic, friendliness, genuineness, and just. Participants ranked the speaker on a 1 to 7 scale. One and seven indicated the strongest feelings; however, lower numbers were more positive.

The credibility measure created six sub-scales and one total score. The six sub-scales were created by computing the average scores of particular items. The competence sub-scale was created by adding competence, intelligence, expert, trained, and logic. Likeability was created by adding honor, kind, friendly, genuine, and just. Confidence was created by adding certain, assertive, and reliable. Honesty, accuracy, and knowledgeable were created by the single item related to those sub-scales (i.e., honesty was created by the honest item only). The total score was created by adding all six of the sub-scales together. The reliability of the credibility measure was $\alpha = .801$ suggesting that this measure had good reliability as well.

CHAPTER III

RESULTS

The data were analyzed using a 3x3x3 three-way ANOVA. Height and weight were categorized into three groups; tall, average, short and overweight, normal weight, underweight. To aide with analyses, appearance was recoded into three categories; very attractive, average, and very unattractive. Table 1 reports the mean, median, and standard deviation for all characteristics of competence used in this study. Table 2 reports the mean, median, and standard deviations for height, weight, and appearance ratings and table 3 reports these percentages.

An ANOVA tests the effects the independent variables had on the dependent variable while holding the other independent variables constant (main effect). An ANOVA also tests for interaction effects which detects interplay between two variables which is more than can be explained by either variable alone. ANOVAs were run on all six variables from the competence measure, the six sub-scales from the credibility measure, and the total score from the credibility measure. No significant results were obtained from these ANOVAs. Additional analyses were run on the individual items from the credibility measure. The additional analyses were separate ANOVAs for the sixteen individual items. The results of these ANOVAs follow in the additional analyses section.

Table 1

Descriptive Statistics Across All Surveys

	Characteristic	*M*	*Mdn*	*SD*
Competence	Eloquence	3.53	4.00	1.323
	Clarity	3.97	4.00	1.296
	Intelligence	4.35	5.00	1.19
	Logic	4.04	4.00	1.225
	Efficiency	3.71	4.00	1.324
	Likeability	3.89	4.00	1.344
Credibility	Competent	2.03	2.00	1.197
	Honesty	1.83	1.50	0.992
	Certain	4.00	4.00	1.775
	Knowledge	1.85	1.00	1.223
	Assertive	2.36	2.00	1.532
	Intelligent2	4.60	5.00	1.531
	Honor	1.86	2.00	0.974
	Kind	1.89	2.00	0.997
	Accurate	1.97	2.00	1.025
	Expert	3.93	4.00	1.419
	Reliable	2.28	2.00	1.247
	Trained	2.10	1.00	1.571
	Logical	1.92	2.00	1.167
	Friendly	4.51	5.00	1.562
	Genuine	2.15	2.00	1.323
	Just	2.04	2.00	1.104
	Competency	2.70	2.60	1.058
	Likeability	2.29	2.20	0.918
	Confidence	2.87	3.00	1.15
	Honesty	1.83	1.50	0.992
	Accuracy	1.97	2.00	1.02
	Knowledgeable	1.85	1.00	1.22
	Total	13.50	12.90	5.18

Table 2

Descriptive Statistics for Weight, Height, and Appearance

Characteristic	*M*	*Mdn*	*SD*
Weight	2.05	2.00	0.731
Attractiveness	1.87	2.00	0.463
Height	1.50	1.00	0.562

Table 3

Percentages for Weight, Height, and Appearance by Survey

	Survey 1	Survey 2	Survey 3	Survey 4	Survey 5	Survey 6	Survey 7	Survey 8	Total
Overweight	12.8%	53.8%	15.4%	12.8%	0.0%	0.0%	0.0%	5.1%	39
Normal Weight	22.7%	0.0%	24.0%	17.3%	13.3%	2.7%	5.3%	14.7%	75
Underweight	10.6%	0.0%	0.0%	0.0%	21.3%	31.9%	25.5%	10.6%	47
Tall	14.3%	9.5%	22.6%	8.3%	16.7%	3.6%	13.1%	11.9%	84
Average Height	19.1%	16.2%	7.4%	13.2%	7.4%	17.6%	7.4%	11.8%	68
Short	0.0%	40.0%	0.0%	20.0%	0.0%	40.0%	0.0%	0.0%	5
Very Attractive	12.5%	12.5%	0.0%	0.0%	12.5%	50.0%	0.0%	12.5%	0
Average Attractiveness	19.0%	10.7%	13.2%	6.6%	14.0%	9.9%	12.4%	14.0%	121
Very Unattractive	10.7%	17.9%	28.6%	32.1%	7.1%	3.6%	0.0%	0.0%	8

Additional Analyses

A main effect for height was observed for the variable "intelligent" ($F = 3.473$, $p = .034$) and for "just" ($F = 3.372$, $p = .037$). A main effect for weight was observed for the variable "expert" ($F = 4.974$, $p = .008$). A significant two way interaction between height and attractiveness was observed for "certain" ($F = 1.099$, $p = .030$). A significant two way interaction was observed between height and attractiveness for "intelligent" ($F = 4.147$, $p = .008$). "Expert" had two significant two way interactions; height and attractiveness ($F = 2.800$, $p = .043$) and weight and attractiveness ($F = 2.846$, $p = .027$). Finally a significant three way interaction for

26

"certain" between height, weight, and attractiveness was observed ($F = 2.866$, $p = .039$). Tables 2-5 show the F values and significance levels for the interactions and effects discussed above. The graphs of all significant interactions and main effects can be found in the Appendix C.

Table 4 "Just"

Source	F	Significance
Height	3.372	.037

Table 5 "Expert"

Source	F	Significance
Weight	4.974	.008
Weight*Attractiveness	2.846	.027
Height*Weight	2.800	.043

Table 6 "Certain"

Source	F	Significance
Height*Attractiveness	3.074	.030
Height*Weight*Attractiveness	2.866	.039

Table 7 "Intelligent"

Source	F	Significance
Height	3.473	.034
Attractiveness*Height	4.147	.008

Certain. Both a two way interaction for height and attractiveness and a three way interaction between height*weight*attractiveness was observed. For the two way interaction, the tall condition received the best rankings at the very attractive level. The most consistent results were at the average attractiveness level for all three height conditions. The worst rankings were given to the average height condition at the very attractive level.

For the three way interaction at differing weights, the overweight level was given the worst rankings. At the overweight level, short and average heights received the best rankings at the average attractiveness level and the worst rankings at the very unattractive level. At average height, the tall condition received the best rankings at the very attractive level while the worst rankings were seen for the tall and average height conditions at the very unattractive level. Finally, for the underweight condition, the tall condition received the best rankings at the very attractive level. The most consistent results were seen at the average attractiveness level for both tall and average heights.

At differing height levels for the three-way interaction, the tall condition received the best overall rankings. At the tall level, the best rankings were given to the average and underweight conditions at the very attractive level while the worst rankings were at the very unattractive level for the short condition. At the average height condition, the best rankings were actually given to the underweight condition at the very unattractive level, but the average attractiveness level showed the most consistent results for all three height conditions. Finally, the short condition, which had little data, showed the best rankings to be at the overweight condition at the average attractiveness level.

Intelligent. The intelligence variable which had significant effects is the variable that came from the credibility measure. A main effect for height and a two-way interaction between height and attractiveness were observed. For the main effect, the tall condition received the best rankings at the very attractive level followed very closely by the short condition.

For the two-way interaction, the best rankings were again given to the tall condition at the very attractive level. The very unattractive and average attractiveness levels had consistent and equal rankings for all three height conditions.

Expert. A main effect for weight, a two-way interaction between weight and attractiveness, and a two-way interaction between height and weight were observed. For the main effect, the average weight condition received the best rankings and the underweight condition received the worst rankings.

Regarding the two-way interaction between weight and attractiveness, the average weight condition received the best rankings for all three attractiveness levels. The overweight condition received the second best rankings for all three attractiveness levels as well.

For the two-way interaction between height and weight, average weight received the best rankings at the tall and average height conditions. Underweight rankings were second best, except for at the average height condition.

Just. A main effect for height was observed for the variable "just". Perceived levels of just were best at the short condition. Tall and average height conditions were separated by .2 points, although they were both significantly worse than the short condition.

Test of Hypotheses

Hypothesis One. Hypothesis one stated that overweight individuals would be perceived as less competent than their normal weight counterparts. Based on the original ANOVAs, this hypothesis was not supported; however, based on the additional analyses, the hypothesis was

supported. For the three-way interaction of certainty, the two-way interaction of expert, and the main effect of expert, the overweight condition received the lower rankings than the average weight condition. Interestingly, the underweight condition received the worst rankings.

Hypothesis Two. Hypothesis two stated that tall individuals would be perceived as more competent than shorter individuals. Again, the original ANOVAs did not produce significant results. Based on the additional analyses, this hypothesis was somewhat supported. For the main effect of intelligence, the two-way interactions of intelligence and certainty and the three-way interaction of certainty, the tall condition did receive the better rankings. The main effect of just showed the best rankings to be at short condition. The two-way interaction of expert, the best rankings were at the average height condition.

Hypothesis Three. Hypothesis three stated that more attractive individuals would be perceived as more competent than unattractive individuals. The additional analyses provided some support for this hypothesis. The two-way interaction of expert and certainty and the three-way interaction of certainty produced the best rankings at the very attractive level. However, for the two-way interaction for intelligence, very attractive did receive better rankings at the tall level, but average attractiveness received better overall rankings.

CHAPTER IV

DISCUSSION

The results of this study suggest that height, weight, and appearance have an effect on specific competence characteristics. While the original results did not produce any significant results, the additional analyses did. Based on additional analyses, hypothesis one was supported. The overweight condition did receive the low rankings in most measures of competence, but it did not receive the lowest rankings for all variables and it seems as underweight is perceived as less competent.

Based on the additional analyses, hypothesis two was somewhat supported. The tall height condition received the greatest rankings in most significant findings. Height also had significant effects with all four of the variables that produce significant results.

Based on the additional analyses, hypothesis three was generally supported as well. The very attractive condition received the greatest rankings in almost all significant findings. Instances where very attractive did not received the greatest rankings are discussed below.

Weight

The graph of the three-way interaction for certain shows that at the overweight level, the greatest rankings were seen at the average attractiveness level for both average and short heights while the very unattractive level had the greatest rankings for the tall height level. At the average weight level, the greatest rankings were seen at the very attractive level for both tall and average

31

height levels. Finally, at the underweight level, the greatest rankings were seen at the very attractive level for the tall height condition and at the very unattractive level for the average height condition.

Previous research suggests that overweight individuals are viewed in a more negative fashion (Surmann, 1997; Ding & Stillman, 2005). This seems to hold true for the certain variable as well. Although high rankings were given to overweight individuals at specific height and attractiveness levels, overweight certain rankings were overall lower than the average and underweight levels. According to the graph, overweight certain rankings topped out at a 3. The average weight condition reached a 1 and the underweight condition dipped into a 2. In the study by Surmann, she found no difference between the overweight and normal weight conditions. This study has found that there seems to be a difference between all three weight conditions with average weight receiving the greatest rankings at the tall, very attractive levels.

Weight also had to effects with the variable expert. A main effect was found with the greatest rankings again going to the average weight condition. However, contrary to previous research, the overweight condition received rankings that were greater than the underweight condition. The underweight condition received a ranking that was on average one point worse than the overweight condition and at least a point and a half worse than the average weight condition.

Weight also had a two-way interaction effect with height for expert. The greatest rankings were seen for the tall and average height levels at the average weight condition followed by the overweight condition at the short height level. Interestingly, the average weight condition again received the worst ranking at the average height condition. The overweight

condition received rankings that were very similar to the underweight condition except for at the average height level.

Height

Height had effects with all four of the significant variables. The first effect was a main effect for the variable just. Short height levels received the greatest rankings while tall and average height conditions were separated by about .2 points.

A second main effect was seen for the variable "intelligence" which is from the credibility scale. The tall height condition received the greatest rankings of intelligence followed closely by the short condition, again with only about .2 points separating the two.

Three two-way interactions were seen for the variables expert, certainty, and intelligence. The expert interaction was with weight while certainty and intelligence were interactions with attractiveness. For the expert interaction, the best rankings were given to the average height condition; however, the tall condition rankings were more consistent. For the remaining two interactions, the tall condition did receive the best rankings at differing attractiveness levels.

The final effect was a three-way interaction for the variable certainty. The greatest rankings overall were in the tall height condition. The tall condition received 1s while the average height and the short height received 2s and 3s.

Based on these results, hypothesis two was some supported. Taller individuals were rated as more competent in most of the significant results. In general, taller individuals are seen as more successful, more persuasive, and more likely to rise to leadership positions (Judge & Cable, 2004). The results of this study seem to fit with this notion, but results vary on weight and attractiveness levels.

Appearance

The attractiveness variable had significant effects with three of the four significant variables. Three two-way interactions and one three-way interaction were observed. The first two-way interaction was between height and attractiveness for the variable intelligence. Again this was the measure of intelligence from the credibility scale. The best ranking was at the very attractive level for the tall height condition; however, very attractive did receive the worst ranking as well at the average height condition. The average and very attractive levels received more consistent results that were also equal to each other.

The second two-way interaction was between weight and attractiveness for expert. The very attractive condition received the best rankings for overweight and average weight, but the underweight condition received the worst rankings at the very attractive level.

A two-way interaction was observed between height and attractiveness for the variable certain. Not surprisingly the very attractive condition received the best ranking at the tall level, but very attractive also had the worst ranking at the average height condition. Certainty also produced a three-way interaction. The very attractive condition received the greatest rankings in the tall height condition and yet, some of the worst rankings at the average weight condition.

Previous research suggests that attractiveness does have a significant effect on the judgment and behaviors of others (Vilela et al., 2007). Bowling et al. (2004) suggested that attractive individuals are more desirable to be around and Eagly, Ashmore, Makhijani, & Longo (1991) suggested that attractive individuals are thought to have more positive personality traits. In this study, most results also suggest that more attractive individuals are thought of in a more positive light. A few of the interactions did not find that the very attractive conditions received

34

the greatest rankings; however, because these were interactions other variables were having a noticeable effect on the rankings.

Limitations

While some may criticize the notion of using undergraduates, undergraduates are close to entering the workforce themselves and adults, at all ages, are susceptible to self-fulfilling prophecies (Shapiro et al., 2007). These undergraduates may one day be in a position to hire employees or evaluate an employees' performance. Any stereotypes they possess now will be with them in those situations as well (Lyons & Kashima, 2003).

One potential limitation of this research deals with its realness. The study may have seemed more realistic if participants were given a job description and asked how qualified a resume paired with a picture was for the given job or if the participants saw the individual actually giving the speech.

The study may have benefited from running the same picture for all participants in the same session (i.e., session 1 viewed picture 1, session 2 viewed picture 2, etc.). This may have countered any effects from participants looking at their neighbors computer screen and noticing that their neighbor was viewing a different photograph.

The first weeks of the study were conducted differently because of equipment malfunctions. The podium in the computer lab was not playing sound as it did during the previous semester and the end of the study. Participants had to listen to the speech played off of a netbook. This often required groups of students to crowd around each other and the netbook to hear the survey. Students often then noticed their neighbor was viewing a different photograph. Also, there may have been effects from some students hearing the speech multiple times.

35

During the last few sessions participants mentioned that the end of their survey continually asked the same question over and over. The final questions from the credibility measure asked the same question, but the anchors on the rating scale were different (Sullivan, Weathington, Metzger, Warren, 2010). It appeared that students may not have been fully reading the questions and continually chose the same answer repeatedly.

Implications and Future Research

Most of the previous research studies have looked at specific measures of competence (i.e., performance appraisals, hiring rates). Performance appraisals and hiring decisions are either good or bad while the characteristics used here have levels. An individual is not "genuine" or "not genuine". These characteristics are on a continuum meaning individuals can fall in between the two anchors. Future research would benefit from looking more closely at perceived competence. It may be that height, weight, and appearance have a greater effect on concrete forms of competence such as performance appraisals, but less of an effect on certain characteristics of perceived competence. Research should look at these characteristics on their own or in relation to just height, weight, or appearance.

Future studies should look at the effects of stereotypes in certain generations. Is it possible that later generations are more accepting and less constrained by stereotypes? If this is true, it might explain why this population showed less of an effect, especially in regards to weight, because it was made up of mostly college aged students.

Training is another area that should be looked at in relation to this topic. This study, paired with previous research, suggests that height, weight, and appearance biases do exist. Organizations should train employees, especially those conducting performance appraisals or

making hiring decisions, on how not to allow these prejudices to affect their decisions.

Organizations may potentially miss out on high performing employees if they let such biases

affect their decisions.

This study adds to the research suggesting that overweight versus normal weight, tall

versus short, and attractive versus unattractive individuals are rated different on levels of

perceived competence.

References

Ambady, N., & Rosenthal, R. (1993). Half a Minute: Predicting Teacher Evaluations from Thin Slices of Nonverbal Behavior and Physical Attractiveness. *Journal of Personality and Social Psychology, 64*(3), 431-441. doi: 10.1037/0022-3514.64.3.431

Avery, R. D., & Faley, R. H. (1992). *Fairness in selecting employees* (2nd ed.). USA: Addison-Wesley.

Belluck, P. (2010 January 13). Obesity Rates Plateau in U.S., Data Suggest. *The New York Times.* Retrieved from http://www.nytimes.com/2010/01/14/health/14obese.html.

Berkowitz, W. R., Nebel, J. C., & Reitman, J. W. (1971). Height and Interpersonal Attraction: The 1969 Mayoral Election in New York City. *Proceedings, 79th Annual Convention, APA,* 281-282.

Blair, I. V., Ma, J. E., & Lenton, A. P. (2001). Imagining Stereotypes Away: The Moderation of Implicit Stereotypes Through Mental Imagery. *Journal of Personality and Social Psychology, 81*(5), 828-841. doi: 10.1037/0022-3514.81.5.828

Bowling, N. A., Beehr, T. A., Johnson, A. L., Semmer, N. K., Hendricks, E. A., & Webster, H. A. (2004). Explaining Potential Antecedents of Workplace Social Support: Reciprocity or Attractiveness? *Journal of Occupational Health Psychology, 9*(4), 339-350. doi: 10.1037/1076-8998.9.4.339

Brewer, M. B. (1979). In-Group Bias in the Minimal Intergroup Situation: A Cognitive-Motivational Approach. *Psychological Bulletin, 86*(2), 307-324. doi: 10.1037/0033-2909.86.2.307

Brunello, G., & D'Hombres, B. (2007). Does Body Weight Affect Wages? Evidence from Europe. *Economics and Human Biology, 5*(1), 1-19. Advanced online publication. Retrieved September 19, 2010. doi: 10.1016/j.ehb.2006.11.002

Bruner, J. S., & Goodman, C. C. (1947). Value and Need as Organizing Factors in Perception. *Journal of Abnormal and Social Psychology, 42,* 33-44. doi: 10.1037/h0058484

Center for Disease Control, Initials. (2009, April 2). *Body measurements*. Retrieved from http://www.cdc.gov/nchs/fastats/bodymeas.htm

Ceschi, G., Banse, R., & Van der Linden, M. (2009). Implicit but Stable: Mental Imagery Changes Explicit but not Implicit Anxiety. *Swiss Journal of Psychology, 68*(4), 213-220.

Dannenmaier, W. D. & Thumin, F. J. (1964). Authority Status as a Factor in Perceptual Distortion of Size. *Journal of Social Psychology, 63,* 361-365. doi: 10.1080/00224545.1964.9922246

DeBeaumont, R. (2009). Occupational Differences in the Wage Penalty for Obese Women. *The Journal of Socio-Economics, 38*(2), 344-349. Abstract retrieved from PsychINFO.

Ding, V., & Stillman, J. (2005). An empirical investigation of discrimination against overweight female job applicants in New Zealand. *New Zealand Journal of Psychology*, *34*(3), 139-148.

Dion, K., Berscheid, E., & Walster, E. (1972). What is Beautiful is Good. *Journal of Personality and Social Psychology, 24*, 285-290. doi: 10.1037/h0033731

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is Beautiful is Good, But…: A Meta-Analytic Review of Research on the Physical Attractiveness Stereotype. *Psychological Bulletin, 110*(1), 109-128. doi: 10.1037/0033-2909.110.1.109

Gatewood, R. D., Feild, H. S., & Barrick, M. (2008). Measurement of Job Performance. *Human Resource Selection* (6th edition). Mason, OH: Thompson South-Western.

Gilmore, D. C., Beehr, T. A., & Love, K. G. (1986). Effects of applicant sex, applicant physical attractiveness, type of rater and type of job on interview decisions. *Journal of Occupational Psychology, 59*, 103-109.

Glick, P., Larsen, S., Johnson, C., & Branstiter, H. (2005). Evaluations of Sexy Women in Low- and High-Status Jobs. *Psychology of Women Quarterly, 29,* 389-395. doi: 10.1111/j.1471-6402.2005.00238.x

Hamilton, D. L., & Trolier, T. K. (1986). Stereotypes and Stereotyping: An Overview of the Cognitive Approach. In J. Dovidio & S. Gaertner (Eds.), *Prejudice, Discrimination, and Racism* (127-163). New York, NY: Academic Press, Inc.

Higham, P. A., & Carment, D. W. (1992). The Rise and Fall of Politicians: The Judged Heights of Broadbent, Mulroney, and Turner Before and After the 1988 Canadian Federal Election. *Canadian Journal of Behavioural Sciences, 24*(3), 404-409. doi: 10.1037/h0078723

Jackson, L. A., Hunter, J. E., & Hodge, C. N. (1995). Physical Attractiveness and Intellectual Competence: A Meta-Analytic Review. *Social Psychology Quarterly, 58*(2), 108-122. doi: 10.2307/2787149

Judge, T. A., & Cable, D. M. (2004). The Effects of Physical Height on Workplace Success and Income: Preliminary Test of a Theoretical Model. *Journal of Applied Psychology, 89*(3), 428-441. doi: 10.1037/0021-9010.89.3.428

King, M. R., & Manaster, G. J. (1977). Body Image, Self-Esteem, Expectations, Self-Assessments, and Actual Success in a Simulated Job Interview. *Journal of Applied Psychology, 62*(5), 589-594. doi: 10.1037/0021-9010.62.5.589

Kurcz, I. (1995). Inevitability and Changeability of Stereotypes: A Review of Theories. *Polish Psychological Bulletin, 26*(2), 113-128.

Lemay, E. P., Clark, M. S., & Greenberg, A. (2010). What is Beautiful is Good Because What is Beautiful is Desired: Physical Attractiveness Stereotyping as Projection of Interpersonal Goals. *Personality and Social Psychology Bulletin, 36*(3), 339-353. doi: 10.1177/0146167209359700

Lyons, A. & Kashima, Y. (2003). How Are Stereotypes Maintained Through Communication? The Influence of Stereotype Sharedness. *Journal of Personality and Social Psychology, 86*(6), 989-1005. doi: 10.1037/0022-3514.85.6.989

Marlowe, C. M., Schneider, S. L., & Nelson, C. E. (1996). Gender and Attractiveness Biases in Hiring Decisions: Are More Experienced Managers Less Biased? *Journal of Applied Psychology, 81*(1), 11-21. doi: 10.1037/0021-9010.81.1.11

Mazur, A., Mazur, J., & Keating, C. (1984). Military Rank Attainment of a West Point Class: Effects of Cadets' Physical Features. *American Journal of Sociology, 90*(1), 125-150. doi: 10.1086/228050

Roehling, M. V. (1999). Weight-Based Discrimination in Employment: Psychological and Legal Aspects. *Personnel Psychology, 52,* 969-1016.

Roehling, M., Roehling, P., & Odland, L. (2008). Investigating the validity of stereotypes about overweight employees: The relationship between body weight and normal personality traits. *Group & Organization Management*, *33*(4), 392-424. doi:10.1177/1059601108321518.

Rudman, L. A., & Borgida, E. (1995). The Afterglow of Construct Accessibility: The Behavioral Consequences of Priming Men to View Women as Sexual Objects. *Journal of Experimental Social Psychology, 6*, 493-517. doi: 10.1006/jesp.1995.1022

Rudman, L. A., Ashmore, R. D., & Gary, M. L. (2001). "Unlearning" Automatic Biases: The Malleability of Implicit Prejudice and Stereotypes. *Journal of Personality and Social Psychology, 81*(5), 856-868. doi: 10.1037/0022-3514.81.5.856

Schaller, M. (1992). In-Group Favoritism and Statistical Reasoning in Social Inference: Implications for Formation and Maintenance of Group Stereotypes. *Journal of Personality and Social Psychology, 63*(1), 61-74. doi: 10.1037/0022-3514.63.1.61

Shapiro, J. R., King, E. B., & Quiñones, M. A. (2007). Expectations of Obese Trainees: How Stigmatized Trainee Characteristics Influence Training Effectiveness. *Journal of Applied Psychology, 92*(1), 239-249. doi: 10.1037/0021-9010.92.1.239

Solnick, S. J. & Schweizter, M. E. (1999). The Influence of Physical Attractiveness and Gender on Ultimatum Game Decisions. *Organizational Behavior and Human Decision Processes, 79*(3), 199-215. doi: 10.1006/obhd.1999.2843

Sullivan, J.T., Weathington, B.L., Metzger, R.L., & Warren, A.R. (2010, October). *Credibility Evolved: The Development of a New Measure of Perceived Credibility.* Poster presented at the 6th Annual River Cities Industrial-Organizational Psychology Conference, Chattanooga, TN.

Surmann, A. T. (1997). The Effects of Race, Weight, and Gender on Evaluations of Writing Competency. *The Journal of Social Psychology, 137*(2), 173-180. doi: 10.1080/00224549709595428

Takeda, M. B., Helms, M. M., & Romanova, N. (2006). Hair Color Stereotyping and CEO Selection in the United Kingdom. *Journal of Human Behavior in the Social Environment, 13*(4), 85-99. doi: 10.1300/J137v13n03_06

Thompson, L. L. (2008). Rewarding Teamwork. In D. Parker (Eds.), *Making the Team: A Guide for Managers* (pp. 69). Location: Upper Saddle River, New Jersey.

U.S. Equal Employment Opportunity Commission, a. *Discrimination by Type.* Retrieved from http://www.eeoc.gov/laws/types/index.cfm

U.S. Equal Employment Opportunity Commission, b. *Remedies.* Retrieved from http://www.eeoc.gov/employers/remedies.cfm

Vilela, B. B., Gonzalez, J. A. V., Ferrin, P. F., & del Rio Araujo, M. L. (2007). Impression Management Tactics and Affective Context: Influence on Sales Performance Appraisal. *European Journal of Marketing, 41*(5/6), 624-639. doi: 10.1108/03090560710737651

Wigboluds, D. H. J., Dijksterhuis, A., & van Knippenberg, A. (2003). When Stereotypes Get in the Way: Stereotypes Obstruct Stereotype-Inconsistent Trait Inferences. *Journal of Personality and Social Psychology, 84*(3), 470-484. doi: 10.1037/0022-3514.84.3.470

APPENDIX A

COMPETENCE SURVEY

Appendix A

The average American female is 5' 3". Based on this average, is the speaker in the video

Tall   **Average**   **Short**

The average American female is 164.7 pounds. Based on this average, is the speaker in the video considered

Overweight   **Normal Weight**   **Underweight**

Please indicate, on a scale of 1 to 7, how much each trait describes the speaker with 1 being "least descriptive" and 7 being "most descriptive".

	1	2	3	4	5	6	7
Eloquence							
Clarity							
Intelligence							
Logic							
Efficiency							
Likeability							

Please rate on a scale of 1 to 7, with 1 being "very unattractive" and 7 being "very attractive", how attractive the speaker in the video was

	1	2	3	4	5	6	7
Attractiveness							

Please circle **your** gender   **FEMALE**   **MALE**

Please indicate **your** ethnicity

APPENDIX B

CREDIBILITY SCALE

Appendix B

Using the scales below, indicate your feelings about the speaker. For each item, circle the number which best represents your opinion of the speaker. Numbers 1 and 7 indicate a strong feeling. Numbers 2 and 6 indicate a moderate feeling. Numbers 3 and 5 indicate a fairly weak feeling. Number 4 indicates you are undecided.

1.	competent	1	2	3	4	5	6	7	incompetent
2.	honest	1	2	3	4	5	6	7	dishonest
3.	uncertain	1	2	3	4	5	6	7	certain
4.	knowledgeable	1	2	3	4	5	6	7	uninformed
5.	assertive	1	2	3	4	5	6	7	unassertive
6.	unintelligent	1	2	3	4	5	6	7	intelligent
7.	honorable	1	2	3	4	5	6	7	dishonorable
8.	kind	1	2	3	4	5	6	7	cruel
9.	accurate	1	2	3	4	5	6	7	inaccurate
10.	inexpert	1	2	3	4	5	6	7	expert
11.	reliable	1	2	3	4	5	6	7	unreliable
12.	trained	1	2	3	4	5	6	7	untrained
13.	logical	1	2	3	4	5	6	7	illogical
14.	unfriendly	1	2	3	4	5	6	7	friendly
15.	genuine	1	2	3	4	5	6	7	phony
16.	just	1	2	3	4	5	6	7	unjust

To score, compute the average score for each factor: competence (1,6r,10r,12,13), likeability (7,8,14r,15,16), confidence (3r,5,11), honesty (2), accuracy (9), and knowledgeable (4). Add the average scores together for an overall rating of credibility. The highest possible score is 42.
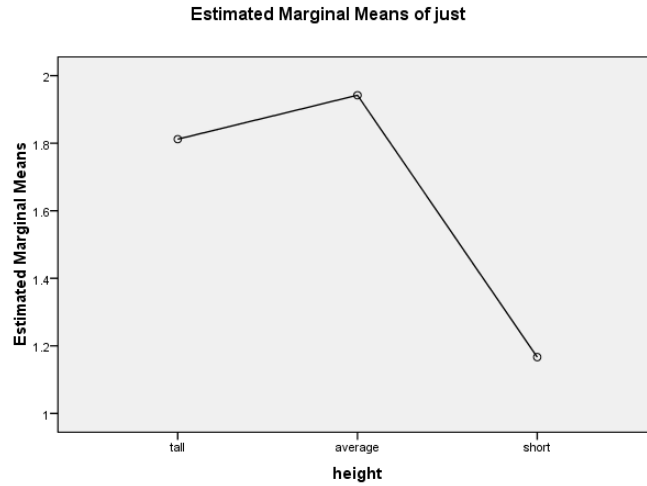
APPENDIX C

GRAPHS OF SIGNIFICANT INTERACTIONS

Appendix C

Estimated Marginal Means of just

Figure 3 Graph of the Main Effect for Height and "Just"

Estimated Marginal Means of expert
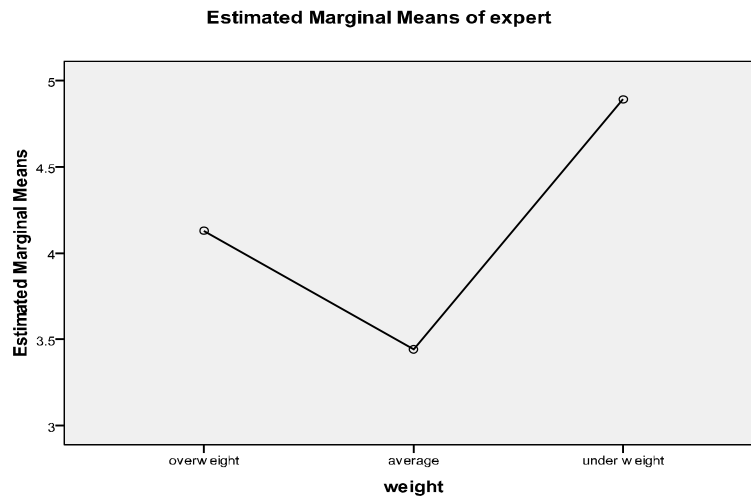
Figure 4 Graph of Main Effect for Weight and Expert

Estimated Marginal Means of expert
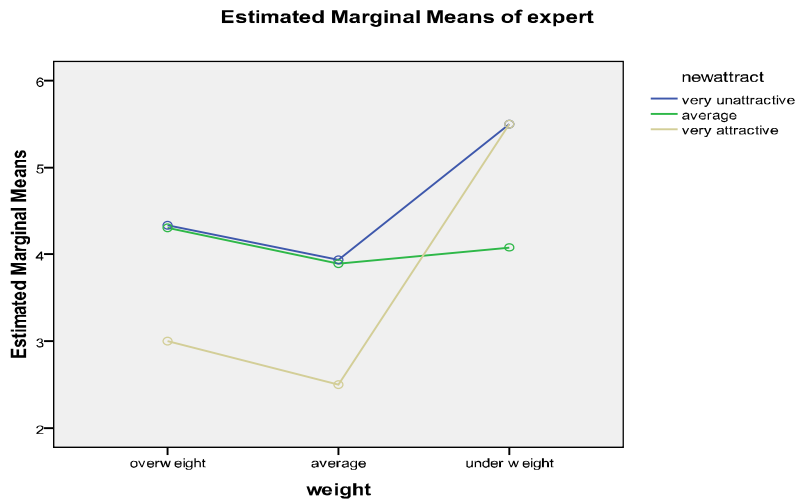
Figure 5 Graph of Two-way Interaction Between Attractiveness and Weight for "Expert"

Estimated Marginal Means of expert

Non-estimable means are not plotted
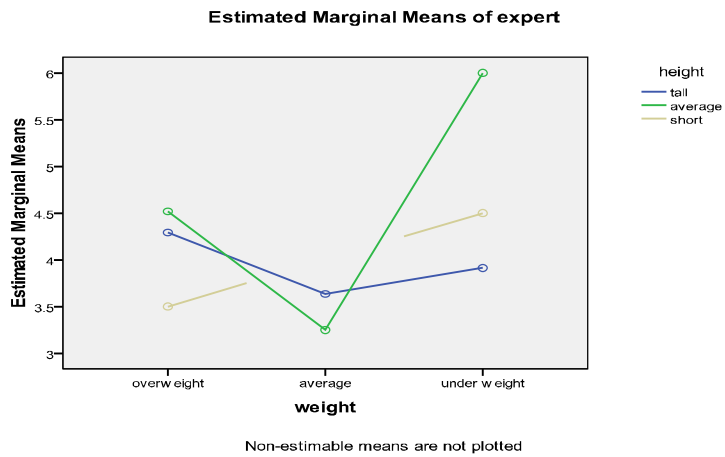
Figure 6 Graph of Two-way Interaction Between Height and Weight for "Expert"

48

Estimated Marginal Means of intelligent2

Non-estimable means are not plotted
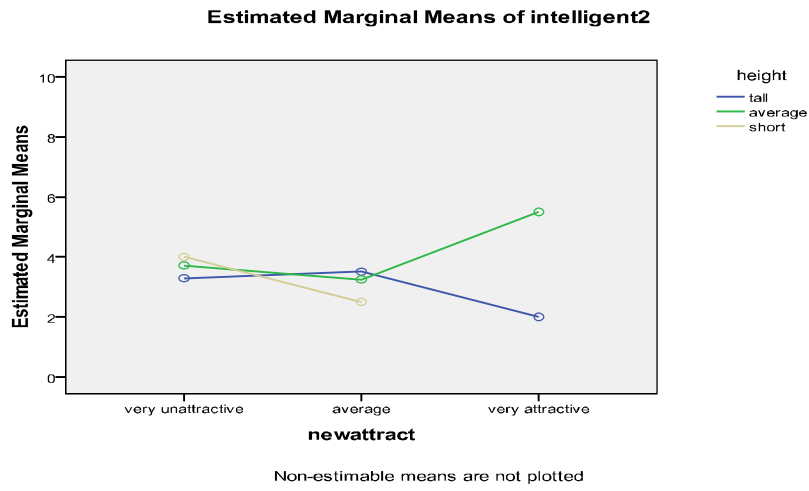
Figure 7 Graph of Two-way Interaction Between Attractiveness and Height for "Intelligent"

Estimated Marginal Means of intelligent2
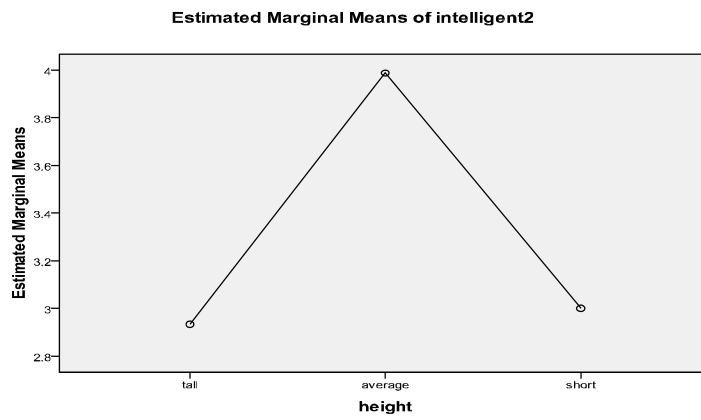
Figure 8 Graph of Main Effect for Height and "Intelligent"
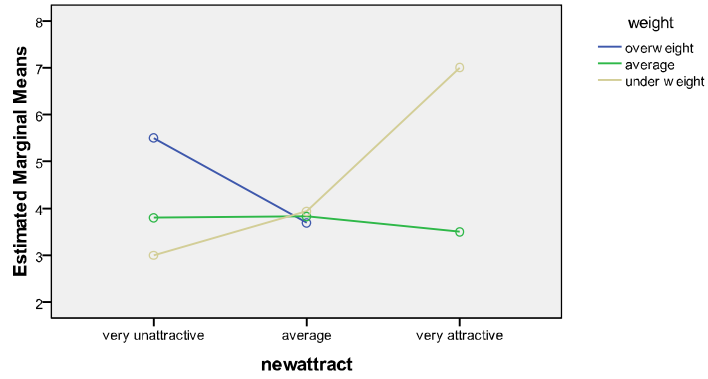
Estimated Marginal Means of certain
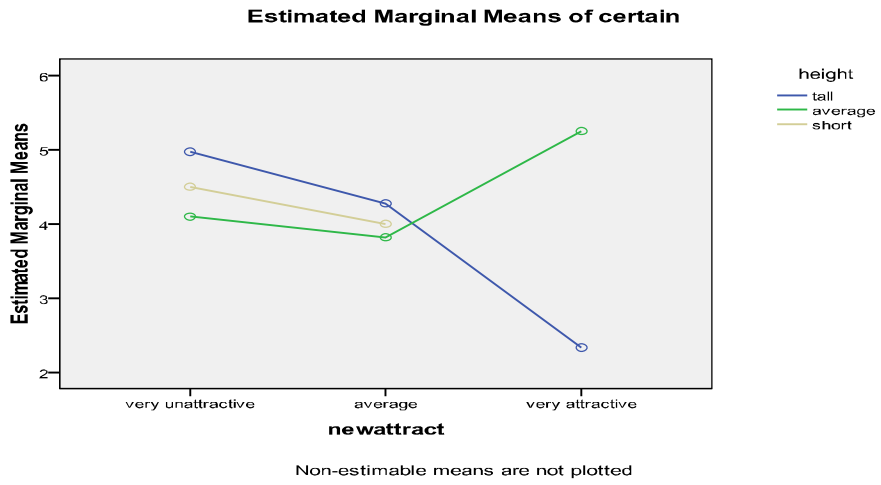
Figure 9 Graph of Two-way Interaction Between Height and Attractiveness for "Certain"

Estimated Marginal Means of certain
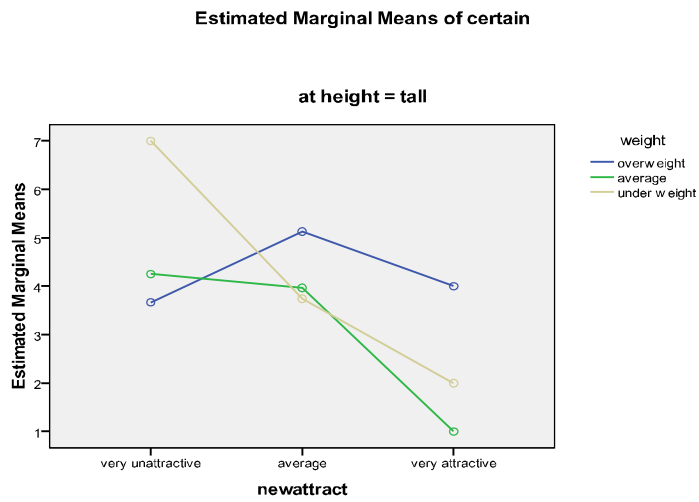
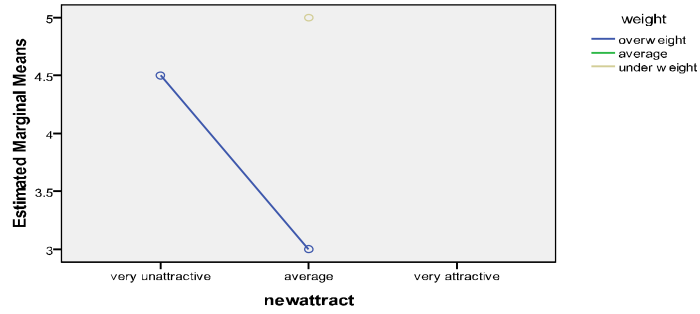**Estimated Marginal Means of certain**

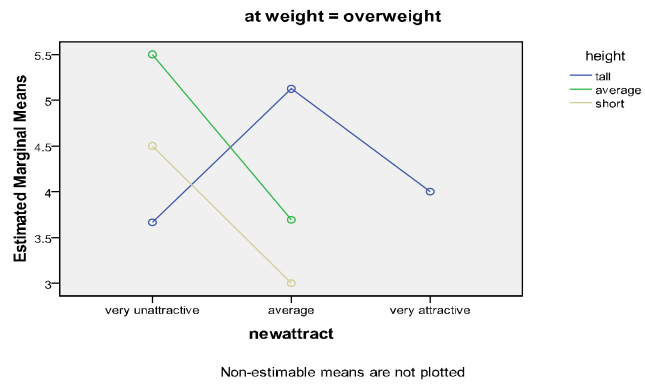**at height = average**

Non-estimable means are not plotted

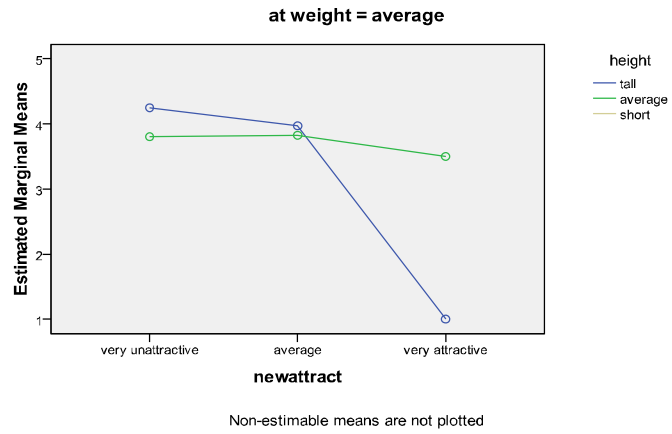**Estimated Marginal Means of certain**

at height = short

Non-estimable means are not plotted

51

Estimated Marginal Means of certain

at weight = overweight

Non-estimable means are not plotted

Estimated Marginal Means of certain

at weight = average

Non-estimable means are not plotted

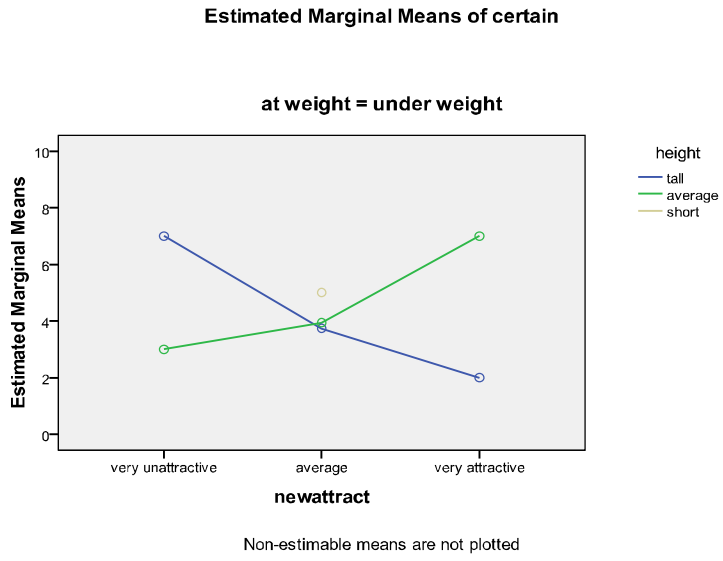**Estimated Marginal Means of certain**

at weight = under weight

Figure 10 Graphs of Three-way Interaction Between Height, Weight, and Attractiveness for "Certain"

VITA

Courtney Kneip was born in Miami, FL, to the parents of Robert and Cindy Kneip. She is the younger of two children and has an older sister. She attended St. Mark's Episcopal School and Palm Beach Gardens High School in Palm Beach Gardens, Florida. After graduation, she attended Auburn University. An undergraduate class in Industrial and Organizational Psychology piqued her interest in this particular area of psychology. She completed her Bachelors of Arts degree in May 2009 in Psychology. Following graduating from Auburn University, Courtney attended The University of Tennessee at Chattanooga. Courtney graduated with a Master's of Science degree in Industrial and Organizational Psychology in May 2011.