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THE ROLE OF APPEARANCE IN SELECTION FOR SEX-TYPED JOBS

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ABSTRACT

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Madeline Heilman's (1983) Lack of Fit Model, which postulates why discrimination occurs in the selection of sex-typed jobs, has been applied to the interaction of applicant attractiveness. Yet recent research suggests that other appearance variables, namely sex-typed facial features, may be associated with perceptions of fit. Building upon Heilman's 1983 model, the current study evaluated how sex-typed facial features relate to applicant selection for sex-typed fields. Undergraduate students were recruited for participation during the spring academic semester ($n = 413$) and data were analyzed using a 2x2x2 ANOVA. Results indicated that selection is significantly impacted by the three-way interaction of applicant sex, facial feature-type, and sex-type of the applying field. Further, masculine-featured females and feminine-featured males were significantly less favored for selection within the feminine sex-typed field. Implications of these findings and the differential evaluation of male and female applicants in a feminine field are discussed.

CHAPTER 1. INTRODUCTION

1.1. <u>Background and Rationale</u>

According to Madeline Heilman's (1983) Lack of Fit Model, occupational sex biases emerge when the perceived attributes of an individual conflict with the perceived requirements of a job. The framework of this model has also been applied to the role of applicant appearance and selection to help explain how applicant sex and applicant appearance leads to selection biases. For women, appearance within selection processes may matter in ways that are different than for men. Specifically women, compared to men, are more likely to encounter stronger occupational sex biases due to their physical appearance (Johnson, Podratz, Dipboye, & Gibbons, 2010). Past research has also demonstrated that women are more likely to encounter appearance biases when the job in question is stereotypically masculine (Heilman & Stopeck, 1985). Now, with the growing popularity of screening social media sites such as Linkedin and Facebook, applicant appearance within selection may be more influential than ever. Due to such online sites, recruiters and hiring managers have access to photographs of applicants even before face-to-face meetings are scheduled. Therefore, the impact of occupational sex biases and applicant appearance is still an area of active research.

Before the impact of occupational sex biases and applicant appearance can be fully assessed, there are some issues within this research domain that need to be addressed. First, most of the research on applicant appearance operationalizes appearance as the degree to which an applicant is attractive. This may be problematic if attractiveness is not the only relevant facet of physical appearance. More specifically, current research suggests that past research on attractiveness may be confounded by the degree to which a face looks masculine or feminine, otherwise known as the degree to which an individual's facial features are sexually dimorphic or "sex-typed" (see Little, Benedict, & DeBruine, 2011). Research shows that masculine female faces are not perceived as attractive, but that masculine male faces, feminine male faces, and feminine female faces are (DeBruine, Jones, Smith, & Little, 2010). Accordingly, the relationship between sex-typed appearances and applicant attractiveness may deserve further investigation.

Second, research on applicant appearance does not always concern global measures of applicant attractiveness. Another body of literature has addressed facial appearance more discretely through its investigation of the constructs of "babyfacedness" and facial maturity (McArthur & Apatow, 1983-84). While these constructs have been predictive of relevant outcomes such as hiring recommendations (Zebrowitz, Tenenbaum, & Goldstein, 1991) and court rulings (Zebrowitz & McDonald, 1991), measures of babyfacedness and facial maturity often overlap with perceptions of facial masculinity and femininity. For example, babyfacedness is more often found in women and associated with warmth and submission (Zebrowitz et al., 1991). While research regarding attractiveness, babyfacedness, and facial maturity revolves around the constructs of sex-typed appearance, very little research has isolated the role of sex-typed

facial features. Even less research has investigated the relationship between sex-typed facial features and job-related outcomes. Thus, the role of sex-typed facial features may an important, yet under-examined aspect of applicant appearance and applicant selection.

Another concern within applicant appearance and selection biases pertains to the job or field in question. Research on such biases does not always implement sufficient control in the selection of sex-typed jobs. At times, masculine and feminine sex-typed jobs are confounded with managerial jobs and/or positions of leadership (e.g., Heilman & Okimoto, 2007). As such, jobs are not always controlled for levels of status and prestige. Other times, the jobs implemented are ambiguously selected which may weaken the validity of the research contributions. Through a more conscientious operationalization of applicant appearance and selection of sex-typed fields, this study will address some of the above mentioned concerns for research on occupational sex biases and applicant appearance.

The purpose of this study is to investigate the role of sex-typed appearance in selection for sex-typed fields. Specifically, this study seeks to answer the question: do sex-typed facial features influence selection decisions for sex-typed fields? Through a controlled investigation of sex-typed facial features within the selection context of sex-typed fields, this study ultimately seeks to better understand occupational sex biases and appearance biases. Next, we will review the literature which sparked our research question. The first portion of our review discusses stereotypes for sex and occupation, and how these stereotypes contribute to biases. The second portion of our review then discusses the literature on applicant selection as it pertains to applicant sex, field, and applicant appearance

1.2. Previous Theory and Research

1.2.1. Sex Stereotypes

Operationally, stereotypes are defined as "a socially shared set of beliefs about the traits that are characteristic of members of a social category" (Greenwald & Banaji, 1995, p. 14). The stereotypic attributes that characterize the group are believed to characterize all group members, simply because these individuals are part of the social category (see Heilman & Haynes, 2008). The number and types of social categories is virtually limitless (e.g. black athletes or stay-at-home moms), though sex and race are two of the more widely researched social categories (Greenwald & Banaji, 1995). A person's biological sex, as a categorical variable, is highly visible and often easily discernible (Snyder, 1981). The visible and discernible nature of one's biological sex makes sex a fundamental membership category, and thus the probability that sex stereotypes will form is likely (Gerber, 2009).

According to Deaux and Lewis (1983) sex role stereotypes consist of four interrelated components: traits, role behaviors, occupations, and physical appearance. Indeed, this study will investigate all four of these interrelated stereotype components, but will be most focused on the latter two components. Much of the research on occupational sex stereotypes can first be explained through the formation of sex-role stereotypes, which ascribe the standard and desired societal roles for both men and women (Spence & Buckner, 2000; White & White, 2006). A common way in which men and women are ascribed social roles is through their respective traits and temperaments

(White & White, 2006). Early personality theorists constructed two personality dimensions: instrumentality and expressiveness (Spence & Buckner, 2000). Instrumentality is manifested through a "cognitive focus on 'getting the job done,'" whereas expressiveness manifests through an "affective concern for the welfare of others" (Bem, 1974, p. 156). Men are generally associated with instrumental traits and behaviors, whereas women are generally associated with expressive traits and behaviors (Bem, 1974). More popular attribute terms within the IO/OB literature are agentic and communal, where agentic and communal respectively replace the terms instrumental and expressive (see Eagly, 1987). Agentic attributes include assertiveness, decisiveness, self-sufficiency, and being achievement oriented (see Heilman & Haynes, 2008). Communal attributes include compassion, sympathy, warmth, and being relationship-oriented.

Due to the continued association of males with agentic attributes, and females with communal attributes, agency has become stereotypically masculine and communality has become stereotypically feminine. Men are expected to exhibit agency and women are expected exhibit communality, because these are the stereotypic attributes of their sex (Rudman & Glick, 2001). In other words, sex-role stereotypes are ascribed to males and females, with the stereotypes embodying the traits and behaviors society would like for men and women to possess. In this way, sex stereotypes both describe and prescribe socially desired traits and behaviors for males and females (Rudman & Glick, 2001).

Additionally, stereotypes are both implicit and explicit in nature. For both implicit and explicit stereotypes, past and present experiences help construct the expected attributions for category-members. Implicit stereotypes are defined as a subset of

stereotypes wherein "the introspectively unidentified (or inaccurately identified) traces of past experiences… mediate attributions of qualities to members of a social category" (Greenwald & Banaji, 1995, p. 15). In simpler terms, an implicit stereotype exists without conscious awareness of its existence. For implicit stereotypes, we are unaware of the influence that past experiences have upon our cognition and perception (White & White, 2006). Alternatively, an explicit stereotype is a subset of stereotypes wherein there *is* a conscious and perhaps intentional awareness of the attributions held for members of a certain social category (Greenwald & Banaji, 1995). To capture and measure explicit stereotypes, direct questions and ratings are typically asked of individuals. Implicit stereotypes are measured indirectly however, typically through judgment latency measures or projective measures. In conclusion, sex stereotypes for men and women can be both implicit and explicit in form, and both prescriptive and descriptive in function.

1.2.2. Occupational Sex Stereotypes

Stereotypes do not only apply to people, but may also apply to occupations. An occupation can become "sex-typed," meaning that it is associated with the stereotypes of the male or female sex. There are two mechanisms through which an occupation becomes sex-typed: its (a) job requirements are aligned with stereotypic sex attributes, and (b) the job is statistically dominated by the presence of one sex (Davidson & Burke, 2000). Nursing, for example, is a commonly cited feminine-sex typed profession (e.g., White & White, 2006). Not only is the profession statistically dominated by females, but it is also aligned with communal characteristics (e.g. care and warmth) which are stereotypically

feminine. Alternatively, a profession such as engineering is stereotypically masculine, both due to the statistical prevalence of males and the agentic characteristics aligned with the profession (e.g. self-sufficiency and confidence). Either through the alignment of job requirements with sex attributes or the statistical prevalence of one sex, the job is associated with the sex and therefore "sex-typed". Often, sex-typed jobs are formed according to the existence of both mechanisms (Davidson & Burke, 2000).

Masculine sex-typed jobs are unique from feminine sex-typed jobs in that masculine attributes characterize jobs that are high in status and prestige (Conway, Pizzamiglio, & Mount, 1996; see also Eagly, Wood, & Diekman, 2000). Thus, if a job is masculine sex-typed, it is likely also perceived as a more prestigious and higher status position than a feminine sex-typed job would be perceived. The association of masculine sex-typed jobs being high in status and prestige may stem from the prototype for leaders. Masculine attributions, such as competence and assertiveness, are often expected of individuals within managerial positions and positions of leadership (Schein 1973; Koenig, Eagly, Mitchell, & Ristikari, 2011). Even if all managerial positions do not denote prestige as do positions of leadership, hierarchically- and therefore objectively- managerial positions are positions of status. As such, male sex-typed jobs develop associations with masculinity in a manner distinct from how female sex-typed jobs develop associations with femininity: stereotypically masculine jobs are often linked with higher levels of status and prestige. Thus, the added caveat to masculine sex-typed jobs requires research on sex-typed jobs to control for the status and prestige of jobs.

1.2.3. Occupational Sex Biases

Stereotypes transition into biases when the stereotype-based expectations held for an individual's category membership negatively impact the individual in terms of judgments and evaluations (see Heilman & Haynes, 2008). In many instances, the stereotyped information is inaccurate and/or irrelevant to the evaluation of the individual (Davison & Burke, 2000). Thus, an individual may be disadvantaged due to information that is linked to their category membership, but which does not actually pertain to a particular individual. For occupational sex biases, an applicant does not "fit" the perceived role of the job due to conflicting sex stereotypes, and as a result suffers negative consequences (Heilman & Saruwatari, 1979). So while the applicant may be sufficiently qualified for a job in question, the sex-stereotypic expectations for the applicant challenge judgments and evaluations of the applicant's qualification. As such, an applicant may experience occupational sex biases- and more importantly, negative job-related outcomes of those biases- simply because of the associated stereotype of his or her sex.

Heilman and Saruwatari (1979) defined occupational sex biases as the "result of an incongruity between one's perceived skills and attributes, which are associated with gender, and the perceived nature of the job's requirements" (p. 203). Research has documented outcomes of occupational sex biases in the forms of poorer performance evaluations, lower rates of promotion, and decreased perceptions of hirability (Davidson & Burke, 2000; Eagly & Karau, 2002; Gerdes & Kelman, 1981). Occupational sex biases, partly because they can function implicitly, are not always immediately apparent.

Lyness and Heilman (2006) attest to the latent nature of these biases when they examined archival data of performance evaluations from 448 upper-level managers, and the relationship of these evaluations with rates of promotion. Their study was unique in that they investigated the hierarchy of managerial jobs, distinguishing between line and staff managers, and performance ratings and promotions across gender. The functions of line managers involved business management, operations management, and sales, while the functions of staff managers involved human resources, administration, and external affairs. Due to the job responsibilities of line managers, the job of line managers was considered more stereotypically masculine than was the job of staff managers.

Lyness and Heilman (2006) found a few indications of occupational sex bias. First, female managers in line jobs were rated significantly lower during their performance evaluations than were females in staff positions or males in either line or staff positions. The lower ratings of women in *line* jobs, even compared to women in staff jobs, suggests that these ratings were partially attributed to women's lack of fit with the more masculine managerial position of line managers. Second, promoted women overall received higher performance ratings than did promoted men overall, indicating that women may need to out-perform men to receive the same outcome. Here, gender explained 6% of the variance in performance ratings, indicating that gender alone accounted for 6% of the total scores. Finally, in terms of promotion for both managerial positions, women were more likely than men to receive promotions on the basis of their performance evaluations- holding the variables of age, organizational tenure, education, and senior management level constant. Performance was more strongly related to promotion for women *(b = .43)*, than was performance for men, *(b = .12)*. Thus, women

in managerial line jobs not only received lower performance ratings than did men, but for women, performance ratings were more strongly related to promotions than the ratings were for men. The interactions reported by Lyness and Heilman (2006) reinforce the phenomenon of the glass ceiling, wherein women, on the basis of their sex and the ascribed stereotypes, struggle more than men to advance up the corporate ladder.

For women, success in career-related domains may function differently than it does for men due to prescribed sex stereotypes. Fiske, Cuddy, Glick, and Xu's (2002) stereotype content model proposes that occupational sex biases against women emerge as a function of perceived dimensions for warmth and competence. According to the stereotype content model, career women are disliked because their stereotype is founded upon perceptions of low warmth and high competence; it is the unique combination of these two dimensions that produces negative evaluations for out-group members (Fiske et al., 2002). Other research has supported the notion that successful career outcomes are achieved differently for men and women. Rudman and Glick (2001) coined the term "agentic backlash," whereby women exhibiting agentic attributes (instead of the stereotypically feminine, communal attributes) have less favorable outcomes within a selection context. Rudman and Glick (2001) also found that men who exhibit agency, even for a feminine sex-typed job, were considered more hirable than were agentic females, $t(171) = 2.54$, $p < .05$. Thus, for women to avoid occupational sex biases and experience favorable career outcomes, they must balance agency with communality (Rudman & Glick, 2001; Heilman & Okimoto, 2007). This balancing act seems particularly important for women when the job is masculine sex-typed (Heilman, Wallen, Fuchs, and Tamkins, 2004).

Occupational sex biases have been found to also negatively impact job-related outcomes for men. Butler and Skattebo (2004) investigated the effects of work-family conflict on performance appraisals by experimentally manipulating the reason fictitious employees did not complete their work. In one condition, employees left work to care for their sick child, and in the other condition employees did not complete their work due to on-the-job complications. Men experienced different consequences for leaving work to care for their child, in the form of lower salary recommendations, whereas women making the same choice did not. A significant main effect of work-family conflict was found for men, such that those who experienced work-family conflict also received lower salary recommendations than those who had low work-family conflict. For women, however, there were no significant differences on their salary recommendations, regardless of whether or not they experienced WFC. As demonstrated in Butler and Skattebo (2004), women's performance appraisals were not jeopardized when they left work to care for their child, but men's appraisals were. These results suggest that the different expectations held for men and women outside of work (i.e., child-rearing) can carry over to our expectations for men and women inside of work, through career-related judgments (i.e., salary recommendations). Since sex of the employee was the only other variable in the judgment scenario, this study supports the presence of occupational sex bias against men. While occupational sex biases can occur through inconspicuous and unintended manners, the effects of these biases on work-related outcomes are indeed realized and supported within IO/OB research.

1.2.4. Occupational Sex Biases and Selection

Research has further demonstrated the presence of occupational sex biases during the selection processes of sex-typed jobs (Davidson & Burke, 2000; Graves & Powell, 1988; Gerdes & Kelman, 1981). In more recent research, the strength of occupational sex biases within the context of selection has diminished. The lowered salience of this effect may be due to a few variables, such as the impact of Title VII of the Civil Rights Act of 1964 and the increased awareness of biases within selection decisions (Bagenstos, 2007). Despite organizations' heightened sensitivity towards sex biases in selection, there is still a marked risk for occupational sex biases within the selection decisions for sex-typed jobs. For sex-typed jobs especially, the odds for stereotype activation are high because sex is a salient variable associated with the job (e.g., Davidson & Burke, 2000). Thus, applicants whose sex is incongruent with the sex of the job are likely to experience occupational sex biases during the selection process. Jobs where the perceived role and applicant in question do not match will henceforth be referred to as "incongruent sex-typed jobs". Likewise, if the perceived role of the job matches applicant sex, the phrase "congruent sex-typed jobs" will be applied.

Occupational sex biases which emerge due to incongruence between the applicant and the job are explained by both Madeline Heilman's (1983) Lack of Fit Model and Eagly and Karau's (2002) theory of role congruity. Madeline Heilman's (1983) Lack of Fit model explains how occupational sex biases emerge, with role congruity encompassed in the explanation of the phenomenon. According to the Lack of Fit Model, occupational sex biases occur when applicants, on the basis of their sex, do not "fit" with the sex

attributes of the job and are therefore perceived as less suitable candidates. Thus, if there is a perceived lack of fit, it happens because the applicant and the role (of the job) are considered an incongruent pair. For example, a male nurse is a commonly cited incongruent pairing (Guy & Newman, 2004). As mentioned above, nursing is a feminine sex-typed job, due to the statistical prevalence of females and to the stereotypically feminine attributes within the job, which may be considered job requirements (i.e., a nurturing disposition and good listening skills). An occupational sex bias arises when a male nurse applicant (expected to be stereotypically agentic) is perceived as less appropriate for the position because of his sex; perceptions of the applicant and the role of the job are incongruent. This is particularly problematic because the stereotyped information may overshadow the individuating characteristics of the applicant and decrease the applicant's odds of selection. This male nurse applicant may indeed be sufficiently communal for the role of the job, yet due to the stereotype of his sex, he is not accurately perceived as such.

Eagly and Karau's (2002) theory of role congruity builds upon Heilman's lack of fit premise, but directly applies to biases against women in leadership roles. Role congruity states that biases in the form of likability and behavioral evaluations occur against women due to a perceived incongruity between women's gender role and leadership roles (Eagly & Karau, 2002). Like Heilman's Lack of Fit Model (1983), role congruity theory postulates that biases result from perceptions of poor fit. Additionally, role congruity theory operates under the premises that leadership roles are stereotypically masculine. As such, women experience occupational sex biases in leadership roles because the role of their sex is perceived as incongruent with the perceived roles of

leadership. For the purposes of this study, however, Heilman's (1983) Lack of Fit model better serves to explain occupational sex biases because it considers potential biases against both sexes.

Eagly and Karau's (2002) role congruity theory emphasizes the importance of controlling for leadership roles when assessing occupational sex biases for applicants of sex-typed jobs. As mentioned prior, the status and prestige inherent in leadership roles confounds assessments of sex-typed jobs. Therefore, this study seeks to evaluate occupational sex biases in a more comprehensive manner: for both sexes and for both masculine and feminine sex-typed jobs. Next, the ways in which applicants are assessed during selection processes and the variables that impact assessments of applicants are discussed. Prior research illustrates how the selection practices, the sex-type of the job, and the role of appearance are relevant in the assessment of applicants.

1.2.5. Assessment of the Applicant for Selection

Appearance may be particularly relevant to selection decisions due to the use of the interview. Other selection practices, such as screening applicants through popular social media sites like Linkedin and Facebook, suggest that assessments of applicant appearance may begin prior to the selection interview. Yet a robust body of research currently supports the importance of applicant appearance at the stage of the interview. The employment interview, along with the application form, is the most frequently used selection device across all selection methods (Doughtery, Turban, & Callender, 1994; Huffcut & Culbertson, 2011). Interestingly, the interview is also one of the selection

methods most prone to error (Cesare, 1996). Much of the error within the interview stems from its lack of structure, and unstructured interviews dominate selection batteries. Despite many human resource professionals knowing that unstructured interviews are prone to error, they are favored over structured interviews within selection practices (Highhouse, 2008). The popularity of unstructured interviews suggests that applicants may frequently be subjected to biased judgments and evaluations during the selection process. It is therefore likely that popular organizational selection practices, such as unstructured interviews, unintentionally permit appearance biases to prevail within selection decisions.

The interview captures both job-relevant constructs, such as experience, training, and interests, as well as job-irrelevant constructs, such as physical appearance (Huffcutt, 2011). The role of appearance typically becomes part of assessing the applicant during the interview stage, because it is at this stage the applicant is first seen (Doughtery et al., 1994). As mentioned above, stereotypes linked to highly visible category memberships, such as race and sex, can be easily activated (Gerber, 2009). Simply seeing a candidate may therefore evoke the implicit and/or explicit stereotypes associated with the applicant's category membership (see Rule and Ambady, 2010). Even though appearance is not a job-relevant construct, it is part of applicant assessment, and more importantly affects job-related outcomes (Hosoda et al., 2003).

Without structure implemented in the types of questions asked and in the rating scales for applicant responses, the interviewer is more likely to appraise the candidate based on subjective criteria and overall impressions (Huffcut, Conway, Roth, & Stone, 2001). This can be problematic when the interviewer's assessments are founded upon his

or her own perceptions of the candidate, and these perceptions include biases (Huffcut & Culbertson, 2011). Furthermore, research indicates that ambiguous evaluative criteria (i.e., unstructured interviews) prompts subjectivity, and ultimately invites bias (see Heilman & Haynes, 2008). Thus, if the interviewer has stereotypic beliefs (either implicit or explicit) activated within the interview process, biased perceptions may ultimately be guiding the decision-making process (Avery & Campion, 1982; Davidson & Burke, 2000; McShane, 1993). While structured interviews do not completely resolve selection biases, they do help decrease that likelihood that biases will adversely impact applicants. It may be more important to reduce biases within specific selection contexts, such as those for sex-typed jobs. Next, the selection context for sex-typed jobs is discussed.

1.2.6. Assessments for Sex-typed Jobs

As mentioned prior, occupational sex biases emerge from a perceived lack of fit between the applicant and the job's sex-based stereotypes (Heilman, 1979). Consequently, an applicant's sex may cause the applicant to be perceived as an incongruent fit for selection (Cable & Judge, 1997). In terms of selection, there is a greater body of research demonstrating how females are subject to occupational sex biases within selection. While there are some studies which explicitly address male applicants of incongruent sex-typed jobs (O'Lynn, 2004; Young & James, 2001), there seems to be a larger concern for female applicants of incongruent sex-typed jobs.

This larger concern for female applicants and incongruent sex-typed jobs particularly revolves around the status and prestige of the job. More specifically,

managerial jobs and general positions of leadership are aligned with stereotypically masculine traits (Eagly & Karau, 2002). For women, the male stereotypes associated with positions of leadership may hinder their progression into these jobs of higher status and prestige, despite their qualifications (i.e., the glass ceiling effect). Koenig et al (2011) conducted a meta-analysis to examine the extent to which stereotypes of leaders are culturally masculine within American society. While the alignment of leadership stereotypes and masculine stereotypes is less salient today, the preferential bias towards male leaders persists and is stronger within occupations dominated by men. The implication from leadership stereotypes is that women will experience occupational sex bias should they apply for a job where men dominate the field. Beyond high status and stereotypically masculine positions (e.g., manager, surgeon, lawyer), this bias could extend to other male dominated professions, such as computer programmer, building contractor, and comedian (Solis & Hall, 2011).

  At times, selection biases for women function in discrete manners. Sharp and Post (1980) found that a sample of personal administrators were equally willing to hire males and females for incongruent sex-typed jobs. However, biases surfaced in that only male applicants were predicted to succeed regardless of the position's sex-type, $F(1, 40) = 4.98$, $p < .05$. As such, occupational sex biases found at the stage of selection may relate to biases women later encounter due to the incongruence of their sex and their position. For example, Heilman et al. (2004) demonstrated in a series of studies that women are rated as less likable when they perform successfully at male sex-typed tasks, compared to equally performing men. Further, likability was found to impact individual outcomes such as recommendations for special career opportunities and for salary (Heilman et al.,

2004). While investigating the selection criteria for American law firms in the mid-1990's, Gorman (2005) found that women were less likely to be hired into law firms when the selection criteria listed stereotypically masculine attributes, such as ambition, assertiveness, and quantitative orientation. On the other hand, when the selection criteria listed more stereotypically feminine attributes, such as cooperative, friendly, and verbally oriented, females were more likely to be selected (Gorman, 2005). Such findings demonstrate how the salience of a job's sex-type may impact adversely impact selection. Further, these findings underscore the real-world implications that judgments and evaluations carry for women when their sex is incongruent with the sex-type of the job.

Male applicants of incongruent sex-typed jobs also experience sex discrimination during selection (Davison & Burke, 2000). Atwater and Van Fleet (1997) for example found that raters preferred a less qualified female for a feminine sex-type job over a more qualified male. Hence, applicant sex was weighed more heavily than were applicant qualifications. Yet, documented instances of selection biases against men are less frequent within literature concerning sex-typed jobs. For male applicants and assessments of fit, recruitment and retention appear to be of greater issue than is selection. O'Lynn (2004) investigated the barriers male nurses encounter and found that nursing programs are accepting of male applicants. However the field is so feminized that the *males* (not those evaluating and selecting) struggle with a sense of belonging. Young and James (2004) found a similar lack of fit from the applicant's perspective when they studied male flight attendants. Regardless, when males apply to female sex-typed professions- such as dental hygienist, librarian, and event planner (Solis & Hall, 2011) - they too may be subjected to occupational sex biases.

In 2009, Desrumaux, De Bosscher, and Leoni explored sex-typed jobs and how the sex-type of the job interacts with attractiveness, levels of competence, and applicant sex within the context of selection. In terms of competency, applicants of incongruent sex-typed jobs experienced different selection ratings, depending on the sex-type of the job. For the male sex-typed job, high versus moderate levels of competence did not impact favorability ratings if the applicant was male: both highly and moderately competent males were favored. Essentially, the male applicants benefited from perceptions of fit. For females in the male sex-typed job, competency did matter. Highly competent females were favored *above* all males when they were applying for the male sex-type jobs. However, moderately competent females applying for the incongruent sex-typed job were greatly disadvantaged- unlike their male counterparts. Thus, females did not experience the same advantage of sex-to-job fit as did the males when the role of their sex was congruent with the job. In the female sex-typed job, regardless of applicant sex, only highly competent individuals received favorable ratings. The interactions found in Desrumaux et al. (2009) suggest that male and female sex-typed jobs may carry different expectations. As a result of these different expectations, the selection processes for sex-typed jobs are not uniform across applicant sex.

The findings of Desrumaux et al. (2009) also suggest that there is nevertheless a willingness to hire qualified applicants for incongruent sex-typed jobs. More precisely, the study implicates that females applying for male sex-typed jobs may be preferred as long as they are well-qualified. Indeed, other research also affirms that occupational sex biases can be decreased when candidates are qualified for the job (Davison & Burke, 2000; Glick, Zion, & Nelson, 1988). Yet if females of incongruent sex-typed jobs are not

highly qualified, unlike their male counterparts, they will likely be excluded from selection. Clearly, more research on applicants of incongruent sex-typed jobs is needed to understand how applicants will be appraised across various sex-typed jobs and fields.

Finally, a smaller body of research has examined perceptions of fit at the organization level. Instead of investigating perceptions of fit between the individual and the job, Cable and Judge (1997) investigated person-organization fit (P-O fit) and organizational selection decisions. In their study, applicant sex was significantly related to interviewer recommendation to hire ($r = -.29$) and to organizations' decision to hire ($r = -.26$), with males less likely to be recommended for hire. Sex was found to influence perceptions of P-O fit, and perceptions of P-O fit were found to influence organizations' decision to hire applicants (Cable & Judge, 1997). Thus, the relationship between applicant's sex and P-O fit suggests that sex stereotypes may decrease a candidate's likelihood of hire in ways beyond the sex-type of the job. Future research on sex-typed jobs and fields is needed to better understand how applicants of incongruent sex-typed jobs and fields are assessed. This study will contribute to a greater understanding of sex-stereotypic expectations within applicant selection by controlling for the implemented sex-typed fields.

1.2.7. The Role of Appearance within Selection

Research indicates that appearance is a component of the subjective evaluations of applicants, and of perceptions of fit during the interview stage (Bretz, Rynes, & Gerhart, 1993; Rynes & Gerhart, 1990). This is particularly important considering

subjective evaluations and perceptions of fit influence interview outcomes, such as recommendation for hire and decision to hire (Barrick, Shaffer, & Degrassi, 2009; Barrick, Swider, & Stewart, 2010; Cable & Judge, 1997). Even in structured interviews, wherein the impact of subjective judgments are reduced, favorable overall initial impressions of an applicant have been found to strongly relate to higher interview ratings of the applicant (r = .42) and to moderately relate to job offers (r = .22) (Barrick, Swider, & Stewart, 2010). Applicant appearance is a crucial part of the initial impressions formed, and may actually contribute to the lasting impressions of the applicant (see Rule & Ambady, 2010).

Several independent studies and meta-analyses have demonstrated the practical significance of applicant appearance on the interview process (Eagly, Ashmore, Makhijani, & Longo, 1991; Hosoda et al., 2003; Jawahar & Mattsson, 2005; Johnson et al., 2010; Lorenzo, Biensanz, & Hyman, 2010). In an extensive meta-analysis, Barrick, DeGrassi, and Shaffer (2009) found that appearance- more than other irrelevant (indirect job) information such as impression management, verbal behavior and nonverbal behavior- impacted selection decisions of the interview. Correcting for sample size, physical appearance had a strong relationship with interview ratings (r_c = .53). In a field study by Golberg and Cohen (2004) wherein college recruiters interviewed high school applicants, verbal and nonverbal skills predicted 16% of the variance for ratings of the applicants. Nonverbal skills especially, which were operationalized as attire and appearance, were a stronger predictor of interview ratings (β = .49,) than were verbal skills (β = .09). In another field study, Marlowe, Schneider, and Nelson (1996) found that even experienced managers were influenced by applicant appearance for both the

likelihood of hire and of promotion. Decisions of inexperienced managers were even more heavily impacted by applicant appearance than were decisions of experienced managers (Marlowe et al., 1996). In conclusion, both experimental and field studies demonstrate the significant and practical impact of applicant appearance when evaluating the applicant during selection.

It is also argued that the role of appearance within selection varies in importance depending on the job. For example, appearance may more strongly influence perceptions of applicant fit if the job requires a lot of social interaction and face-to-face time with consumers (e.g., sales) (Gilmore, Beehr, & Love, 1986; Johnson et al., 2010). Unfortunately, emphasizing the role of appearance within selection seems to place women at a disadvantage. In a recent study by Johnson et al. (2010), participants rated how relevant physical appearance was for various sex-typed jobs. Even for the jobs where appearance was predetermined to be unimportant, the same sample of participants rated attractive female applicants as less suitable for a masculine sex-typed job ($M = .01$, $SD = .23$) than unattractive female applicants ($M = -.15$, $SD = .28$). Thus, depending on the sex-type of the job, appearance may play a differential role for male and female applicants. If applicant appearance generates a differential impact on perceptions of applicant suitability and likelihood of hire due to the applicant's sex, an occupational sex bias for appearance is present.

Next, appearance variables and their relationship to applicant selection are discussed. First, the role of attractiveness within applicant selection is reviewed, followed by the role of applicant facial features as grouped by the constructs of babyfacedness, facial maturity, and masculinity and femininity. The term "sex-typed facial features" is

applied to those features which represent masculine and feminine faces. Ultimately, the argument is made that sex-typed facial features may play a central role within applicant appearance and selection, particularly when the job is also sex-typed.

1.2.7.1. <u>Attractiveness as a variable</u>

One of the most consistent findings from research regarding applicant appearance is that attractiveness yields advantages. Overall, both attractive men and women experience greater positive job-related outcomes, such as likelihood of hire and compensation levels, than do unattractive counterparts (Hosoda et al., 2003). The effect of physical attractiveness yielding an advantage for applicants within selection has been termed the "what is good is beautiful" bias (Dion, Berscheid, & Walster, 1972). Appearance, however, has not always produced a universal advantage for men and women. Rather, it may depend upon the job. Heilman and Saruwatri (1979) coined the phrase "beauty is beastly" to describe the disadvantages attractive women experience when applying for masculine sex-typed jobs. Though empirical support for the "beauty is beastly" effect has been challenged in recent years (Podratz & Dipboye, 2002), the literature still suggests that attractiveness functions uniquely for women within a selection context (e.g., Boor et al., 1983).

Unlike attractive male counterparts, attractiveness can be specifically disadvantageous within selection contexts for women. The differential role of appearance within selection is thought to stem from cultural beliefs about beauty and gender (Langlois et al., 2000). More specifically, beauty is a stereotypically feminine attribute,

and therefore beauty may be beneficial for females applying to feminine sex-typed jobs because there is a sufficient fit between the perceived role of the job and the applicant. If there is a positive relationship between perceived levels of attractiveness and femininity, there could hypothetically be a greater perceived fit for attractive women applying to feminine sex-typed jobs (Desrumaux et al., 2009; Heilman & Saruwatari, 1979). Conversely, attractive women may be perceived as too feminine to adequately fit the perceived role of a stereotypically masculine sex-typed job and experience selection biases as a result (Heilman & Stopeck, 1985). Such biases have not been documented for attractive males.

Overall, attractiveness may be relevant to selection for sex-typed jobs because attractiveness is thought to make one's sex more salient (e.g., Desrumaux et al, 2009). In other words, masculine males and feminine females are perceived as more attractive than feminine males and masculine females. Other research demonstrates that an attractive male can be either facially masculine and/or feminine, but that an attractive female can only be facially feminine (see Little et al., 2011). In this case, men can appear masculine or feminine and still benefit from the "what is good is beautiful" bias, but women must appear feminine to experience the advantages of being attractive. Therefore women are not only limited in the ways they are found attractive, but they are also limited in the contexts where attractiveness is advantageous. Underlying the role of attractiveness is the role of sex stereotypes and concepts of masculinity and femininity. The idea that attractiveness makes one's sex more salient further suggests that attractive men may elicit advantageous qualities of masculine sex stereotypes, while attractive women may elicit the limiting qualities of feminine sex stereotypes.

1.2.7.2. <u>Facial features as a variable</u>

While attractiveness is a prevailing appearance variable, research has focused on certain facial features as predictive of job-related outcomes. Regardless of the interactions with attractiveness, some research demonstrates the relevance of facial features in applicant selection. Zebrowitz et al. (1991) found that facial maturity (i.e., how mature one's facial features appeared) was related to hiring recommendations for applicants of sex-typed jobs. "Babyfaced" individuals (here, defined as large eyes, high eyebrows, large forehead, and a small chin) were more often recommended for feminine sex-typed jobs, while mature-faced individuals were more often recommended for masculine sex-typed jobs. Importantly, females were also considered more baby-faced while males were considered more mature-faced. As demonstrated by this study, perceptions of applicant appearance and fit may extend beyond measures of physical attractiveness and into applicant facial features.

Even though babyfacedness and facial maturity are established as polar ends of the same continuum, more recent literature has simply focused on the construct of facial maturity. Very few studies directly acknowledge how facial maturity relates to sex stereotypes (e.g. Friedman & Zebrowitz, 1992), yet research on facial maturity implicates that sex stereotypes and sex-typed facial features may be the greater constructs of interest. For example, Rule and Ambady (2008) found that when participants rated the faces of Fortune 1000 male CEOs according to a composite score of power, perceptions of power accurately predicted company profits such that CEOs determined as appearing more powerful experienced higher revenue for the fiscal year. This composite score for

power consisted of ratings for competence, dominance, and facial maturity- all of which hold stereotypically masculine associations. Thus, it is quite possible that measures of facial maturity may actually be capturing measures of facial *masculinity*. Isolating the construct of sex-typed facial features for both male and female faces could therefore reveal greater predictive validity than that of facial maturity alone.

1.2.7.3. <u>Sex-typed facial features as a variable</u>

Research has slowly approached the construct of sex-typed facial features as a pertinent appearance-variable for job-related outcomes. Before, measures of facial masculinity and femininity were subsumed within measures of facial maturity, or measured as a control for measures of attractiveness. Prior research within the IO/OB field has indicated the importance of facial features: Zebrowitz et al. (1991) demonstrated relationships among facial maturity, applicant sex and hiring recommendations, and Friedman and Zebrowitz (1992) demonstrated relationships between facial maturity and sex stereotypes. However, both of these studies used sketched drawings as their facial stimuli. Perhaps the scarcity of research on sex-typed facial features and job-related outcomes can also be attributed to the available stimuli. Advanced stimuli of photographed, sex-typed faces have only recently become available, and such stimuli have been developed outside the IO/OB field.

Much of the research on facial perception and biological fitness uses computer technology to morph five key ratios within male and female faces (Penton-Voak et al., 2001). When manipulated, these faces are dichotomized as either facially masculine or

feminine; differences in facial features are then visibly notable. Masculine faces are identifiable through wider jaw-lines, a lower-set and more prominent brow ridge, and thinner lips (see Little et al., 2011). Feminine faces are identifiable through such features as smaller jaw-lines, a higher set brow-line, thinner checks, and fuller lips. It should be noted that the main difference between the constructs of babyfaceness/facial maturity and facial masculinity/femininity is that babyfaceness/facial maturity pertains to age-related perceptions and expectations (Zebrowitz, Olson, & Hoffman, 1993). Using the facial stimuli from the fields of facial perception and biological fitness may offer better measures for our construct of interest: sex-typed facial features. Additionally, these advanced stimuli will help to better determine relationships among facial features and other variables of interest.

Sczesny and Kuhnen (2004) and Sczensny, Spreeman, and Stahlberg (2006) most directly address the impact of sex-typed facial features upon job-relevant outcomes. In 2004, Sczensy and Kuhnen demonstrated the impact of sex-typed facial features upon perceptions of leadership competence and selection separately from the impact of target sex. Facial stimuli contained photographed faces pretested for degrees of masculinity and femininity. Individuals with a more masculine appearance were perceived as having more leadership ability compared to individuals with a more feminine appearance, $F(1, 126) = 17.78$, $p < .001$. Further, participants indicated they felt more certain in their decision to employ masculine appearing individuals for a leadership position compared to feminine appearing individuals, $F(1, 126) = 9.82$, $p < .01$. Since masculine appearing individuals were more favored for a leadership position (which is also stereotypically masculine), the findings of Sczensy and Kuhnen (2004) support the impact of sex-typed facial features as

part of applicant fit perceptions. Sczensny, Spreeman, and Stahlberg (2006) found a similar pattern of results in two studies that measured faces and corresponding leadership attributions. The first study asked participants to rate their explicit attributions when shown four faces: a masculine-featured male and female and a feminine-featured male and female. Regardless of sex, masculine-featured faces were attributed with a higher degree of leadership competence than were feminine-featured faces, ($\eta^2 = .11$). Given recent research on sex-typed facial features and sex-typed jobs, perceptions of facial features may indeed be an influencing variable within applicant appraisal and selection.

1.3. The Present Study

The intent of this study is to investigate the role of appearance in selection for sex-typed fields. Specifically, this study seeks to answer the question: do sex-typed facial features influence selection decisions for applicants of sex-typed fields? Research on occupational sex biases indicates that applicants whose sex is congruent with the sex-type job experience better job-related outcomes. In line with Madeline Heilman's (1983) Lack of Fit Model, I predicted that sex of the applicant will influence perceptions of applicant fit in the form of selection decisions:

Hypothesis 1: Selection decisions will be more favorable for applicants whose sex is congruent with the sex-type of the field, compared to applicants whose sex is incongruent with the sex-type of the field.

As prior research further indicates that the perceptions of facial features may impact perception of applicant fit, I predicted that the sex-type of applicant facial features

will also influence perception of applicant fit. The influence of facial features upon perceptions of applicant fit will also be measured in the form of selection decisions:

Hypothesis 2: Selection decisions will be more favorable for applicants whose facial feature-type is congruent with the sex-type of the field, compared to applicants whose facial feature-type is incongruent with the sex-type of the field.

Building upon Hypothesis 2, I predicted that perceptions of applicant fit will not only be influenced by the two-way interaction between applicant facial feature-type and sex-type of the field, but also that selection decisions for this interaction will vary according to applicant sex:

Hypothesis 3: Selection decisions will be more favorable for applicants whose facial feature-type is congruent with the sex-type the field, but these selection decisions will also differ according to applicant sex.

Although recent research indicates that applicant facial features may predict perceptions of applicant fit, a greater body of research indicates these advantages vary according to applicant sex. As males often experience favorable selection outcomes (Phelan, Moss-Racusin, & Rudman, 2008), and may not experience biased outcomes due to appearance (e.g., Heilman & Stopeck, 1985) I hypothesized that facial feature-type will not adversely impact male applicants when their facial feature-type and field-type are incongruent. Conversely, as research indicates that appraisals of female applicants are more favorable when their facial feature-type is congruent with their field-type (e.g., Johnson et al. 2010), it was hypothesized that selection decision for females will be favorable only when their facial feature-type is congruent with their field-type.

Hypothesis 3a: Selection decisions for male applicants will be favorable when their facial feature-type is both congruent and incongruent with the sex-type of the field.

Hypothesis 3b: Selection decisions for female applicants will be favorable only when their facial feature-type is congruent with the sex-type of the field.

CHAPTER 2. METHOD

2.1. Participants

Initially, 438 participants were recruited from the student population of Indiana University – Purdue University Indianapolis during the academic spring semester. Participants were recruited through self-referral via SONA, a web-based coordination service used by the Department of Psychology at Indiana University – Purdue University. Participants were primarily recruited from the Introduction to Psychology course at Indiana University – Purdue University Indianapolis. Participation in this study was voluntary, and course credit was administered in exchange for study participation.

2.2. Design

This study used an experimental 2x2x2 between subjects design to investigate interactions among applicant sex, applicant facial-feature type, and sex-type of the field. Applicant sex, applicant facial feature-type, and field type were manipulated across survey versions, constituting a total of eight unique conditions.

2.3. <u>Measures and Materials</u>

2.3.1. Job Descriptions and Resumes

All surveys contained a brief job description for the role of a teaching assistant and an applicant resume. Information for the job descriptions was obtained from O*Net, and abridged for the purposes of this study. One job description was created for social work TA applicants and one job description was also created for computer science TA applicants. Although the preferred field knowledge differed between the fields, both TA job descriptions listed the same primary role and tasks for the position. Two resumes were also made: one for applicants of the social work TA condition, and one for applicants of the computer science condition. Thus, all social work TA applicants had the same resume, and all computer science TA applicants had the same resume. Information regarding applicant qualifications avoided alignment with sex stereotypes; rather, the purpose of providing applicant resumes was to more realistically simulate the selection process and demonstrate the applicants' aptitude and fit for the position. Resumes and job description can be found in Appendix A, which contains all the materials for this study.

2.3.2. Sex-typed Field

For this study, the job of teaching assistant (TA) was applied across conditions, with the TA field of study being sex-typed. Selection of the sex-typed fields was determined according to methods supported by prior research when determining selection of sex-typed jobs. As mentioned prior, jobs become sex-typed either through the

statistical dominance of one sex within the job and/or the trait dominance from one sex
aligned with the job (Davidson & Burke, 2000). Thus, selection of the TA fields of study
was determined according to statistical dominance and trait association (detailed below).
Additionally, levels of status and prestige were controlled for in selecting the TA field of
study.

Two pilot studies were first conducted to help determine the TA fields of study
(Appendix B). Although the pilot tests initially determined sex-typed jobs, the
information gained from the pilot studies translated into selection of sex-typed fields. The
first two pilot studies contained job titles that were statistically dominated by a single sex.
The jobs were selected from the 2011 US Census Statistics for Household Data (Solis &
Hall, 2011). Jobs chosen to represent masculine sex-typed jobs were those statistically
comprised of 70%, or more, by males. The same process was applied in the selection of
feminine sex-typed jobs, whereby feminine sex-typed jobs were selected if they were
statistically comprised of 70%, or more, by females. Neutral jobs, which were comprised
of 45%-55% males, were also included. Both pilot studies contained the same final list of
jobs, yet included different instructions. All participants for the pilot studies were
recruited from an upper-level, undergraduate psychology course at Indiana University –
Purdue University Indianapolis.

The first pilot test was intended to control for the confounding variable of
prestige. This pilot test instructed participants to rate the jobs according to "*How
prestigious do you believe the job to be*" on a 5 point Likert-type scale (1 = *very low
prestige*; and 5 = *very high prestige*). The instructions also defined a prestigious job as
one that "conveys both status and respect" to further clarify intent to raters. The second

pilot test more directly measured associations of masculinity and femininity pertaining to jobs. This pilot test instructed participants to rate the jobs according to "*How masculine or feminine you believe a job to be*" on a 5 point Likert-type scale (1 = *very masculine*; 3 = *neutral*; 5 = *very feminine*). With statistical dominance controlled for in the selection of jobs for the pilot studies, participants' perceptions of sex-typed jobs could be based on their trait-attributions. The job title of social worker and computer science programmer surfaced as having comparable levels of status and prestige (social work: $M = 2.67$, $SD = 1.22$; computer science programmer: $M = 3.44$, $SD = .88$). As desired, the levels of status and prestige for these two jobs were not significantly different, $t(16) = 1.55$, $p = .142$. Further, social worker was perceived as a stereotypically feminine role ($M = 4.25$, $SD = .71$) and computer science programmer was perceived as a stereotypically masculine role ($M = 2.00$, $SD = .96$). As desired, the levels of masculinity and femininity between these two jobs were statistically different, $t(14) = -5.46$, $p < .01$.

Information acquired from the pilot tests was then used to determine the TA fields of study. Isolating sex-typing to the field of study as opposed to the job helped control for perceived levels of status and prestige because the tasks and duties of TA remained uniform across conditions. To further ensure the field of study was statistically dominated by one sex, gender demographics for all fall 2013 declared, undergraduate majors were obtained through the Office of Information Management and Institutional Research at Indiana University – Purdue University Indianapolis. Ninety-one percent of declared social work majors were female, and 90% of declared computer science majors were male. Therefore, the statistical dominance of the fields of study further supported the

selection of social work as a stereotypically feminine field of study, and computer science as a stereotypically masculine field of study.

2.3.3. Sex-typed Faces

This study used photographs of male and female faces that were validated as either facially masculine or feminine in prior facial perception research studies (e.g., Buckingham et al., 2006; Welling, Singh, Puts, Jones, & Burriss, 2013). These studies utilized a computer program called Psychomorph, which altered faces to be 30% more masculine and/or 30% more feminine than their original degree. Therefore Pyschomorph allowed for a masculine and feminine version of the same female face, as well as a masculine and feminine version of the same male face. Four final faces were implemented as stimuli in this study: a masculine male face, a masculine female face, a feminine male face, and a feminine female face. All stimulus faces appeared to depict individuals in their early twenties, which is also consistent with the typical age of a teaching assistant. Last, both male and female faces depicted Caucasian individuals. The four faces used in this study can be found in Appendix A.

2.3.4. Demographic Items

Participants were asked to provide demographic information including: (1) age, (2) gender, (3) race, and (4) sexual orientation. Participants were also asked to indicate if they had prior experience in an undergraduate course accompanied with a teaching

assistant, and if they had prior experience reviewing resumes for selection. These items, along with all other measures for this study, can be found in Appendix C.

2.3.5. Selection Decisions

All participants made two selection decisions for a given applicant. The two selection decisions were "willingness to hire" and "projected success". For "willingness to hire," the statement "*I am willing to hire this candidate for the TA position*" was posited. For projected success, the statement "*I think this candidate will be successful in the TA position*" was posited. Both of these selection decisions were rated according to a 5-point Likert-type scale, (1 = *strongly disagree*; 5 = *strongly agree*).

2.3.6. Manipulation Checks

To affirm that participants perceived applicant faces as anticipated, two manipulation checks were instated. The first manipulation check asked participants to rate how masculine or feminine they perceived the applicant face to be. Ratings for perceived sex-typed faces were made according to a 7-point bipolar scale, (-3 = *very masculine*, 0 = *ambiguous*, 3 = *very feminine*). To also affirm that perceptions of facial feature-type were perceived distinctly from perceptions of attractiveness, participants were also asked to rate how attractive they perceived the applicant face to be. Attractiveness ratings were made according to a 7-point bipolar scale, (-3 = *very unattractive*, 0 = *neutral*, 3 = *very attractive*).

2.3.7. Reading Checks

Throughout all survey versions, participants were asked multiple choice questions which required attention and regard of survey material. These questions served as reading checks, and were placed under the target applicants' job description, resume, and photograph. These questions were intended to verify that participants understood and acknowledged critical information about target applicants' qualifications and characteristics. The list of reading checks can be found in Appendix C. If participants answered these questions incorrectly, they were asked to review the presented materials before proceeding. Participant responses were omitted if participants did not correct their responses after the request to review incorrect answers.

2.4. Procedure

Participants were randomly assigned to one of eight total survey versions that varied according to applicant sex (male/female), facial feature-type (masculine/feminine), and field-type (masculine/feminine). All survey versions were administered online through SurveyMonkey. For each survey, participants were asked to read a job description and an applicant resume, and were then shown a photograph of the applicant. Upon reviewing this information, participants were then asked to make selection decisions for the given applicant. Participants also completed reading checks embedded throughout the survey, manipulation checks, and finally demographic items.

2.5. <u>Statistical Analyses</u>

This study used a 2x2x2 ANOVA to evaluate the significance of the two-way interaction between applicant sex and field-type, the two-way interaction between applicant facial feature-type and field-type, and the three-way interaction among applicant sex, applicant facial feature-type, and field-type. The three-way interaction was then explored further according to the two-way interaction for facial feature-type and field-type across applicant sex. Simple main effects for facial feature-type were also investigated according to applicant sex and field-type.

CHAPTER 3. RESULTS

3.1. Preliminary Analyses

The initial sample size for this study totaled 438 participants. After screening

participant responses according to the reading checks embedded within the surveys, the

sample size was slightly reduced (n = 413). Means, standard deviations, and correlations

for sample demographics and key variables in the study are shown in Table 1. Although

the majority of our sample (85.5%) did not have prior experience in reviewing resumes

for selection, the majority of our sample (83.5%) did have prior classroom experience

with a TA and thus were likely familiar with the role of teaching assistant.

3.1.1. Manipulation Checks

3.1.1.1. Masculinity-Femininity

Participants were asked to rate the degree to which a given face was sex-typed to

ensure that the photographed faces were appropriately perceived as masculine and

feminine. Ratings were made according to a 7-point bipolar scale, (-3 = *very masculine*, 0

= *ambiguous*, 3 = *very feminine*). Male faces overall were rated as strongly masculine (*M*

= -1.54, *SD* = 1.25), and female faces overall were rated as feminine (*M* = 1.12, *SD* =

1.18). The masculinity-femininity ratings for male faces overall compared to female face overall were significantly different, $t(408) = -22.14$, $p < .01$. Masculine male faces were perceived as more masculine than were feminine male faces ($M = -1.96$, $SD = 0.97$; $M = -1.08$, $SD = 1.36$). Masculine male faces were rated as significantly more masculine than were feminine male faces, $t(208) = -5.41$, $p < .01$. Additionally, feminine female faces were perceived as more feminine than were masculine female faces ($M = 1.60$, $SD = 0.87$; $M = 0.63$, $SD = 1.26$). Feminine female faces were also rated as significantly more feminine than were masculine female faces, $t(198) = -6.33$, $p < .01$. These findings supported the integrity of our stimuli.

3.1.1.2. Attractiveness

Prior research has not always separated measures of sex-typed facial features from measures of attractiveness, particularly as it pertains to applicant selection (e.g., Desrumaux et al., 2009). To compare perceived levels of masculinity-femininity to perceived levels of attractiveness, attractiveness ratings were made according to a 7-point bipolar scale, (-3 = *very unattractive*, 0 = *neutral*, 3 = *very attractive*). Neither male faces neither overall nor female faces overall were rated as strongly attractive ($M = .26$, $SD = 1.30$; $M = .57$, $SD = 1.24$). However, female faces overall were perceived as significantly more attractive than were male faces overall, $t(409) = -2.51$, $p = .013$. The significant difference between male and female faces overall can be attributed to ratings for female faces. Masculine female faces were rated as less attractive than feminine female faces ($M = .21$, $SD = 1.25$; $M = .91$, $SD = 1.13$). This difference was statistically significant, $t(197)$

= -4.18, $p < .01$. Conversely, masculine male faces were not rated as more attractive than were feminine male faces ($M = .32$, $SD = 1.32$; $M = .19$, $SD = 1.27$). Further, there was no significant difference between the attractiveness ratings for masculine male faces and feminine male faces, $t(210) = .77$, $p = .445$. As such, only feminine female faces were rated as significantly more attractive than the three remaining faces in this study. It is possible that the constructs of sex-typed facial features and attractiveness may have only been simultaneously captured for measures concerning feminine female faces.

3.2. Hypotheses Tests

Due to the high agreement between the two selection ratings ($r = .87$, $p < .01$), willingness to hire and projected success, these items were combined into a two-item scale called "selection ratings" ($\alpha = .93$). This selection scale became the dependent variable for our ANOVA. An ANOVA was conducted to investigate potential interactions of our hypotheses: applicant sex and field-type, facial feature-type and field type, and applicant sex, facial feature-type and field-type. The results of the ANOVA are summarized in Table 2.

3.2.1. Hypothesis 1

Hypothesis 1 predicted that selection would be more favorable for applicants whose sex was congruent with the sex-type of the applying field. Means and standard deviations for the selection ratings of applicant sex by field-type are shown in Table 3. A

significant interaction between applicant sex and field-type was not found, $F(1, 405) = 0.00$, $p = .993$. Therefore, Hypothesis 1, which stated that selection decisions would be more favorable when applicant sex and field-type were congruent, was not supported by our results.

3.2.2. Hypothesis 2

Hypothesis 2 predicted that selection would be more favorable for applicants whose facial feature-type was congruent with the sex-type of the applying field. Means and standard deviations for the selection ratings of applicant facial feature-type by field-type are shown in Table 4. A significant interaction between applicant facial feature-type and field-type was not found, $F(1,405) = .04$, $p = .848$. Thus, Hypothesis 2, which stated that selection decisions would be more favorable when applicant facial feature-type and field-type were congruent, was not supported by our results.

3.2.3. Hypothesis 3

Hypothesis 3 predicted that selection would be more favorable when applicant facial feature-type was congruent with the sex-type of the applying field, but that the selection decisions made according to this two-way interaction would also vary by applicant sex. It was hypothesized (3a) that selection decisions for male applicants will be favorable when their facial feature-type is both congruent and incongruent with the sex-type of the field. However, for female applicants, it was hypothesized (3b) that selection

decisions for will be favorable only when their facial feature-type is congruent with the sex-type of the field. Means and standard deviations for the selection ratings of applicant sex by applicant facial feature-type by applying field-type are shown in Table 5. A significant three-way interaction for applicant sex by facial feature-type by field type was found, $F(1,405) = 4.63$, $p = .032$. Therefore, Hypothesis 3 was partially supported by our results in that applicant selection was impacted by our sex-typed variables.

Hypotheses 3a and 3b were explored by examining the three-way interaction among applicant sex, facial feature-type and field-type further. To evaluate Hypotheses 3a and 3b, the two-way interactions for facial feature-type and field-type were examined separately across applicant sex. Figure 1 illustrates the selection ratings for male applicants. The two-way interaction for facial feature-type and field-type for male applicants was not significant, $F(1,208) = 2.74$, $p = .099$, $_p\eta^2 = .01$. There was, however, a simple main effect of facial feature-type for male applicants according to field-type. For male applicants, there was no simple main effect for facial feature-type in the masculine sex-typed field, $F(1,102) = .09$, $p = .760$, $_p\eta^2 = 0.00$. Thus, facial feature-type did not impact selection ratings for male applicants in the masculine sex-typed field. There was, however, a simple main effect for male applicants' facial feature-type in the feminine sex-typed field, $F(1,106) = 5.52$, $p = .021$, $_p\eta^2 = .05$. The non-significant, two-way interaction between facial feature-type and field-type for male applicants supports Hypothesis 3a. However, the finding that male applicants with a feminine face in a feminine sex-typed field were favored significantly less contradicts the hypothesized results. Since male applicants were not unanimously favored regardless of facial features and field, there is only partial support for Hypothesis 3a.

The two-way interaction for facial feature-type and field-type for female applicants was then explored. Selection ratings for female applicants are illustrated by Figure 2. The two-way interaction for female applicants' facial feature-type and field-type was not significant, $F(1,197) = 1.93$, $p = .167$, $_p\eta^2 = .01$. However, a simple main effect for female applicants' facial feature-type was found according to field-type. In the masculine sex-typed field, there was no simple main effect for female applicants' facial feature-type, $F(1,98) = .45$, $p = .504$, $_p\eta^2 = .005$. Therefore, facial features did not significantly impact selection ratings for female applicants in the masculine sex-typed field. There was, however, a simple main effect for facial feature-type of female applicants in the feminine sex-typed field, $F(1,99) = 6.174$, $p = .015$, $_p\eta^2 = .06$. In the feminine sex-typed field, masculine-featured women were significantly less favored for selection. Therefore, Hypothesis 3b was partially supported because selection decisions for female applicants were significantly impacted when facial feature-type was incongruent with a feminine field-type.

CHAPTER 4. DISCUSSION

4.1. Contribution

This study aimed to determine if sex-typed facial features impacted the selection of applicants for sex-typed fields. Indeed the results of this study support the role of sex-typed facial features as influential to selection. However, two hypothesized interactions were not supported by my results. Contrary to hypotheses, applicant sex and field-type (H1) and applicant facial feature-type and field-type (H2) did not significantly impact selection ratings for applicants. Applicant sex and field-type may not have generated differential selection ratings due to modern day's heightened sensitivity towards sex discrimination (Bagenstos, 2007). Facial feature-type to field-type alone was not significantly impactful, although results did indicate a significant two-way interaction for sex and facial feature-type, as well as simple main effects for facial feature-type according to levels of sex and field. Thus, the relationships between applicant sex to field-type and between facial feature-type to field-type may not be strong stimuli in terms of stereotype activation. Rather, it may be the interactions of applicant sex with facial features that activate stereotype-based expectations within sex-typed fields.

Perhaps the most interesting findings from this study pertain to the simple main effects found within the three-way interaction among applicant sex, facial feature-type, and field-type (H3). The patterns of results were unexpected in two ways. First,

differential impact according to applicant sex and facial feature-type was only observed in the feminine sex-typed field. These findings are in contrast with previous research that indicates interactions between applicant sex and facial feature-type may lead to appearance biases within masculine sex-typed fields (Heilman & Stopeck, 1985; Johnson et al., 2010). Second, both male and female applicants experienced decreased selection ratings due to their physical appearance. Such results were unexpected because appearance biases towards male applicants have been largely undocumented by previous research. Yet, the results of this study indicated that feminine-featured men and masculine-featured women were significantly less favored for selection (see Figures 1 and 2). Thus, for men in the feminine field, it was not their sex but their facial feature-type that generated adverse impact. For women in the feminine field, although their sex matched the applying field, the incongruence between their facial feature-type and the field generated adverse impact. Such findings therefore provide some support for Madeline Heilman's (1983) Lack of Fit Model for both sexes, at least in terms of selection for feminine sex-typed jobs and fields.

It is possible that appearance mattered only in the feminine sex-typed field due to stereotypes held for females and appearance. More specifically, beauty and the importance of physical appearance are considered stereotypically feminine attributes (Langlois et al., 2000). Therefore, the feminine sex-typed field may have activated the notion that appearance was relevant to selection because appearance is a stereotypically feminine concern. As such, feminine-featured women may have been perceived as a better fit for the feminine sex-typed field. Conversely, selection ratings were not significantly impacted by applicant appearance in the masculine sex-typed field, and

therefore appearance in the masculine field did not seem particularly relevant to selection. Rather, it is possible that for the masculine sex-typed field, the stereotypically masculine attribute of competence was activated as important to selection. Thus, as all applicants were equally qualified (i.e., all had the same resume), neither applicant sex nor facial feature-type adversely impacted applicants in the masculine field. Instead, all applicants in the masculine sex-typed field may have been appraised on the basis of their qualifications. The pattern of these results therefore suggests that selection criteria may vary according to the field-type and the sex-stereotypic expectations for the respective fields.

Building upon the importance of physical appearance within feminine sex-typed fields, it is possible that feminine-featured men and masculine-featured women were perceived as violating their respective gender norms. As such, both these subgroups were then less favored for selection within the feminine field. Though the literature is sparser for men compared to women, occupational sex biases have been documented for both sexes when they do not ascribe to the traditional sex stereotypes and thus violate norms. For women, the term "agentic backlash" is often used to describe occupational sex biases that women experience when they do not ascribe to the prescriptive stereotype for their sex (Rudman & Glick, 2001). Although there is no term to describe occupational biases against counterstereotypical men, such men have been characterized as "modest" or "wimpy and less respected" (Heilman & Wallen, 2010; see also Rudman & Phelan, 2008). In terms of selection, Phelan et al. (2008) examined applicants who exhibited either counterstereotypical or stereotypical traits of their sex. Both agentic female applicants and communal male applicants were rated as significantly less socially skilled

compared to stereotypical men and women. Unfortunately for agentic female applicants, selection criteria were more heavily based on their social skills than their level of competence. For hirablility, agentic females were less likely to be hired, but there were no significant gender differences for hirability of communal applicants (Phelan et al., 2008). While the biases against counterstereotypical women were more nuanced and perhaps more consequential, counterstereotypical men were also disadvantaged for selection. Thus, the counterstereotypical appearance of feminine-featured men and masculine-featured women in this study may have activated stereotypes associated with counterstereotypical men and women, and ultimately impacted selection ratings for these two subgroups. Implications for future research are discussed in the following section.

Interestingly, masculine-featured males and feminine-featured females were uniformly favored for selection. Regardless of the applying field-type, the interaction of their sex and facial feature-type seemed to benefit these applicant subgroups. Such findings contradict previous research on feminine-featured women, but somewhat supports the literature on attractiveness and the glass escalator effect. The literature on attractiveness suggests that masculine-featured males and feminine-featured females are traditionally considered the most attractive subgroups (see Little et al., 2011). According to our manipulation check, feminine-featured females were the only subgroup rated as moderately attractive. For this study, perhaps the perceived level of attractiveness for the feminine-featured women led to their experienced selection advantages across field-type. Although the manipulation check did not support the masculine-featured male as attractive to raters, it is possible that attractiveness may have likewise presented this subgroup with a selection advantage. Yet it is also possible that the high levels of

perceived masculinity for this applicant subgroup heightened the salience of the applicant's sex, and the selection advantage for masculine-featured males was a function of the glass escalator effect. According to the glass escalator effect, token males do not experience occupational sex biases, but rather are more likely to experience advantages above and beyond their female colleagues (Williams, 1992). Therefore, the selection advantages for feminine-featured women may be a function of their attractiveness, whereas the selection advantages for masculine-featured men may be a function of their salient masculine appearance and the glass escalator effect.

In terms of practical implications, the results of this study suggest that applicants and hiring organizations can be more cautious of activating stereotype-based expectations within selection contexts. Unfortunately, it may be more difficult for applicants to proactively avoid stereotype activation than it may be for hiring professionals. A simple step, however, would be for applicants to mindfully screen accessible photographs of themselves and only share photographs that are pleasing (see Isaac, Lee, & Carnes, 2009). Hiring organizations can also follow selection practices that may help negate biases for appearance. For example, recruiters can exclude applicant photographs from their screening and selection processes. Also, organizations can minimize the probability of occupational sex biases by ensuring their selection criteria is job-relevant and aptly gender neutral. Organizations can also train hiring professionals on how to appraise applicants according to the specific job qualifications, and to avoid biases within selection contexts (see Isaac et al., 2009). Together, such initiatives from both applicants and hiring organizations may help decrease occupational sex biases and appearance biases within selection.

4.2. Limitations and Future Research

Perhaps the greatest limitation of this study is its generalizability. For this study, participants were asked to make selection ratings for teaching assistant applicants. Although the majority of our sample was familiar with role of TAs, the majority also lacked prior training and experience in making real-world selection decisions. Therefore, the ratings from our sample may not accurately reflect the selection decisions of actual hiring professionals. Second, selection decisions in actual field settings are made with more information than was offered by this study. Since applicants were represented through a paper person task, the judgments of our participants were confined by the limited information available. As such, our sample again may not accurately reflect the judgments of hiring professionals. The controlled nature of this study did, however, help affirm potential relationships between our selection variables of interest and selection ratings.

The practical importance of this study may also be limited. Although we found a significant three-way interaction among applicant sex, facial feature-type, and field type upon selection, the effect size for this interaction was rather small ($_p\eta^2 = .01$). As this was a controlled experiment, the effect size may be even smaller in field settings. Therefore, it is unknown how relevant facial feature-type would be to selection in field settings. This is not to say that facial features will not significantly impact odds of field selection, however. Applicant facial feature-type may simply be more relevant in other real-world contexts, such as applicant screening. Last, the small effect size may simply be a function

of this study's design, as opposed to the strength of applicant sex, facial feature-type and field-type interactions upon selection.

While the found effect size was rather small, so were the manipulations within this study. At times, small effect sizes from small experimental manipulations suggest that the investigated relationships may be rather substantial in real world contexts (Cortina & Landis, 2009). Thus, the small effect size found here should not discourage future researchers from further investigating the relationships within this study. The manipulations in this study were subtle in a few ways. Foremost, instead of sex-typed jobs, this study implemented two different sex-typed fields. The job descriptions for both positions list the same primary role and the same tasks, and therefore were rather synonymous. It is likely that selecting different sex-typed jobs that also list strongly sex-typed tasks, such as construction worker and beautician, would function as a stronger experimental manipulation and ultimately yield a larger effect size. Additionally, the field of computer science, though rated as strongly masculine in the pilot study, may not have activated strong stereotypes for masculinity. As such, it is possible that the simple main effects for facial feature-type were not found within the masculine field because computer science is not a conventionally strong, masculine sex-typed field. A different masculine sex-typed field, such as firefighter or economist, may have generated differential selection ratings according to applicant sex and facial feature-type.

Another limitation of this study concerns the constructs of sex-typed facial features and attractiveness. As the pattern of our results and support from previous research both suggest, masculine-featured males and feminine-featured females may be perceived as the most attractive individuals, and likewise experience better job-related

outcomes. Though the manipulation check did not support masculine-featured males as attractive, the standard deviations for their attractiveness ratings were rather large; accordingly, attractiveness ratings for masculine-featured males did not confirm they are strongly perceived as unattractive. Additionally, the single stimulus for the masculine-featured male within this study may not represent for the average attractiveness of masculine-featured males in real-world. Hence, it is possible that the photograph for the masculine-featured male used in this study is less attractive than the average masculine-featured male. Future research could continue investigations of attractiveness and sex-typed facial features across sex to understand how these variables interact. Expanding upon the premise of this study, interactions for attractiveness could be included alongside investigations of applicant sex, facial feature-type, and field-type interactions.

While this study appeared to sufficiently isolate the construct of sex-typed facial features, investigations of sex-typed facial features may never be fully isolated from the construct of attractiveness, at least for women. For men, they may be separate enough in the sense that attractiveness ratings for the male faces in this study did not significantly differ according to facial feature-type. Yet for women, feminine-featured women were rated as significantly more attractive than masculine-featured women. Additionally feminine-featured women were favored for selection across field-type. However in the feminine sex-typed field, facial feature-type impacted selection such that masculine-featured women were favored significantly less than feminine-featured women. It is possible that the masculine-featured women were disadvantaged due to a) a perceived lack of fit between facial feature-type and field-type, b) a perceived lack of fit between desired levels of attractiveness and expectations for a feminine field-type, or c) a

combination of two. Future research could therefore examine levels of attractiveness within masculine-featured women as it relates to applicant fit and applicant appraisals. Perhaps more beneficial, future research efforts could also investigate how to reduce appearance biases for masculine-featured women.

A key finding from this study was the differential impact of facial feature-type according to applicant sex in the feminine sex-typed field. However, it is unknown how the limitations within this study may have contributed to this finding. For example, appearance may have only mattered in the feminine sex-typed field due to the selected fields. Appearance may also be relevant for applicants of masculine sex-typed fields, but the field of computer science may not have accurately represented the typical associations for masculine fields. Therefore future research can continue investigations of how physical appearance is important both within and across field-type. Additionally, in examining selection criteria for sex-typed fields, future research can include trait perceptions of applicants according to their sex, facial feature-type, and field-type. As suggested by the pattern of results in the feminine field, the counterstereotypical appearance of applicants may have caused raters to associate these applicants with counterstereotypical traits, and thereby rate them as less desirable candidates. Thus, examining trait associations according to applicant appearance in future studies could provide additional clarity to pattern of results found within this study.

Last, expanding this study to real-world samples or to real-world contexts is a desirable future direction. One option is to replicate this study with a sample of actual hiring professionals in sex-typed fields. The replication of this study with a more generalizable sample could better assess the impact of applicant facial features upon

selection. A second future direction is to conduct this study in the field. Although a field study would require partnership with a hiring organization, the selection rating items used here could easily be completed by hiring professionals. Separate ratings on applicants' facial feature-type could then be compared to hiring professionals' ratings, and ultimately to actual organizational decisions. Trait items for agentic and communal traits could also be measured to evaluate potential interactions among trait-type (stereotypical and counterstereotypical), applicant sex, facial feature-type and field-type. An exploration of this capacity is most involved, yet may best asses the practical importance of facial features to applicant selection across sex and field-type.

4.3. <u>Conclusion</u>

Appearance biases are often a function of implicit stereotypes: although we explicitly know that physical appearance should not be a relevant criterion, appearance nonetheless influences our judgments and evaluations of others. Even more unfortunate, appearance biases may lead to biased, job-related outcomes within selection contexts. Much of the research on occupational sex biases and appearance biases illustrates biases against women in masculine sex-typed fields. However, the findings of this study suggest that research within feminine fields deserves equal attention. There is also potential for future research to expand our understanding of how the stereotypes and expectations differ across sex-typed fields. As we continue to move towards an equal opportunity workforce, an increased awareness of appearance biases and selection biases is one of many important steps.

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TABLES

Table 1 Means, Standard Deviations, and Correlations among Sample Demographics and Key Variables

Variables	M	SD	1	2	3	4	5	6	7
1. Gender	0.75	0.43	-	-	-	-	-	-	-
2. Age	20.8	4.49	-0.04	-	-	-	-	-	-
3. Race	0.75	0.43	-0.03	-0.01	-	-	-	-	-
4. Selection Ratings	3.91	0.70	0.06	-0.04	0.08	-	-	-	-
5. Target Sex	0.49	0.50	0.01	0.04	0.01	0.05	-	-	-
6. Facial feature-type	0.49	0.50	-0.01	-0.01	-0.06	0.03	0.03	-	-
7. Field-type	0.51	0.50	0.03	0.04	-0.06	-0.06	-0.01	0.03	-

* Indicates significance at the .05 level
Note: N = 413. Gender coded as 0 = male, 1= female
Race coded as 0 = minority, 1 = majority ("Caucasian/white")
Target Sex, facial feature-type, and field-type coded as 0 = male/masculine, 1 = female/feminine

Table 2 Results of ANOVA

Effect	df	F	η	p
Target Sex	1	1.37	0.00	0.24
Facial feature-type	1	0.63	0.00	0.43
Field-type	1	1.58	0.00	0.21
Target Sex x Facial feature-type	1	5.94	0.01	0.02
Target Sex x Field-type	1	0.00	0.00	0.99
Facial feature-type x Field-type	1	0.04	0.00	0.85
Target Sex x Facial feature-type x Field-type	1	4.63	0.01	0.03

Table 3 Means and Standard Deviations for Selection Ratings: Target sex by Field-type

Target sex	Field-type	*M*	*SD*
Male	Masculine	4.00	0.78
	Feminine	3.91	0.61
Female	Masculine	3.92	0.64
	Feminine	3.83	0.73

Table 4 Means and Standard Deviations for Selection Ratings: Facial feature-type by Field-type

Facial feature-type	Field-type	*M*	*SD*
Masculine	Masculine	3.93	0.72
	Feminine	3.85	0.64
Feminine	Masculine	3.99	0.71
	Feminine	3.89	0.70

Table 5 Means and Standard Deviations for Selection Ratings: Target sex by Field-type by Facial feature-type

Target sex	Field-type	Facial feature-type	*M*	*SD*
Male	Masculine	Masculine	3.97	0.78
		Feminine	4.02	0.78
	Feminine	Masculine	4.05	0.48
		Feminine	3.78	0.69
Female	Masculine	Masculine	3.88	0.65
		Feminine	3.96	0.64
	Feminine	Masculine	3.66	0.73
		Feminine	4.01	0.70

FIGURES

Figure 1 Selection Ratings for Male Applicants: Facial feature-type by Field-type
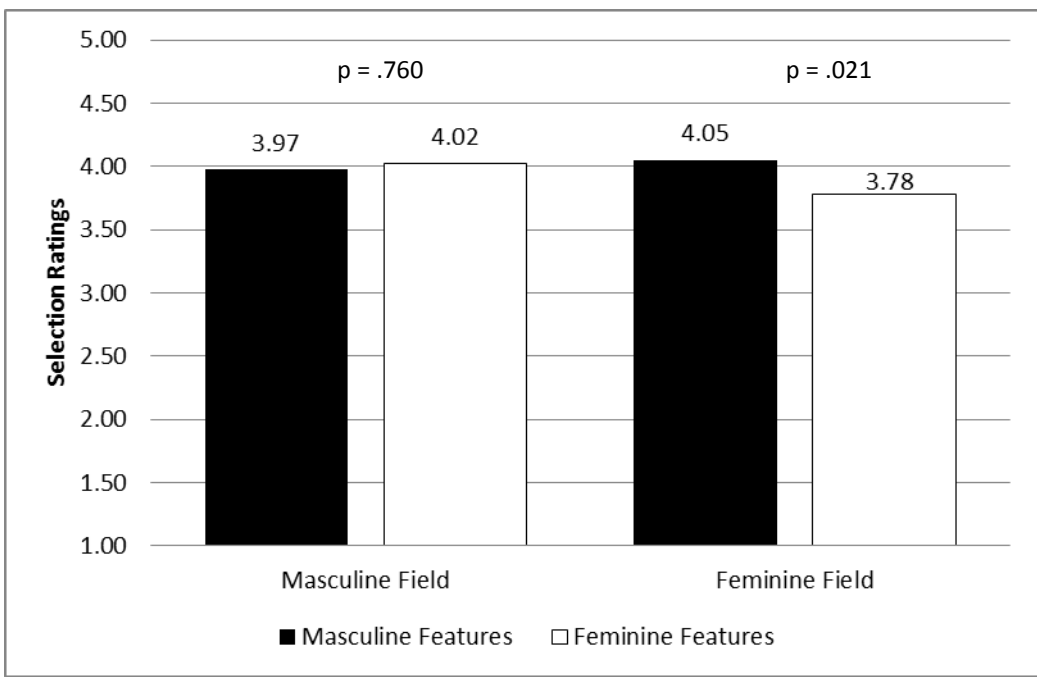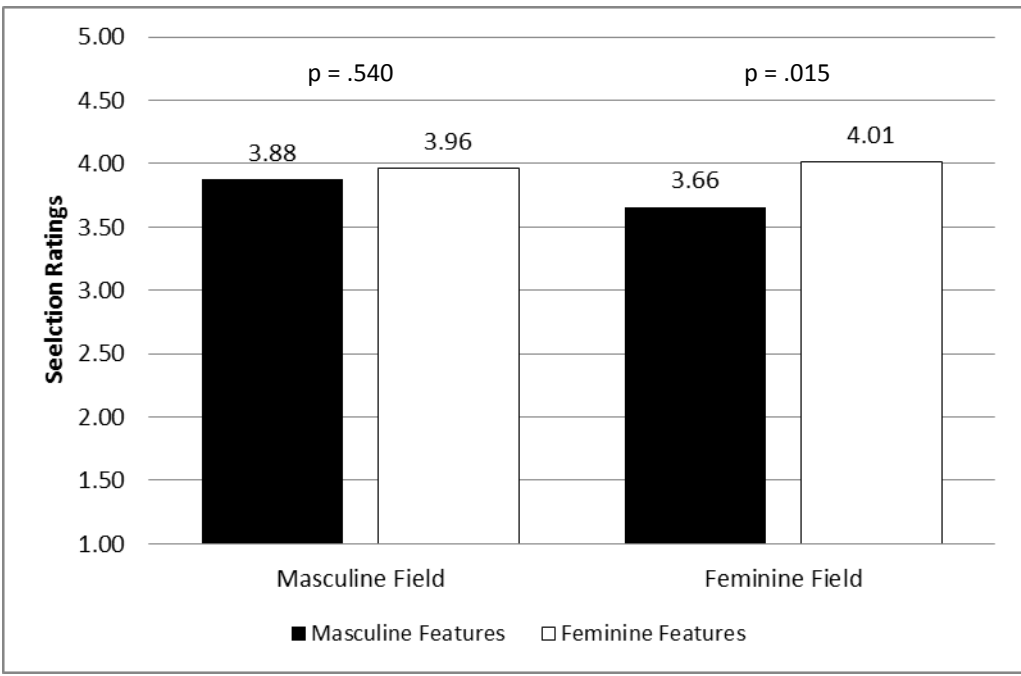

Figure 2 Selection Ratings for Female Applicants: Facial feature-type by Field-type

APPENDICES

Appendix A. <u>Materials</u>

Job Description: Computer Science TA

The primary role of Graduate Teaching Assistants (TAs) is to assist faculty members with teaching or teaching-related duties. For Computer Science TAs, prior background and/or experience in computers and electronics, mathematics, engineering and technology, telecommunications, and design is preferred. It is also recommended that Computer Science TAs have basic operating knowledge of multimedia projectors, portable data input terminals, and software such as database user interface and query software.
Additional TA tasks may include:

- Lead discussion sections, tutorials, or laboratory sections.
- Develop teaching materials
- Evaluate and grade examinations, assignments, or papers and record grades.
- Notify instructors of errors or problems with assignments.
- Meet with supervisors to discuss students' grades or to complete required grade-related paperwork.
- Copy and distribute classroom materials.
- Demonstrate use of laboratory/classroom equipment and enforce laboratory/classroom rules.

Job Description: Social Work TA

The primary role of Graduate Teaching Assistants (TAs) is to assist faculty members with teaching or teaching-related duties. For Social Work TAs, prior background and/or experience in therapy and counseling, psychology, sociology/anthropology, customer and personal service, law and government, and clerical work is preferred. It is also recommended that Social Work TAs have basic operating knowledge of photocopiers and software, such as medical software, office suite software, and spreadsheet software.
Additional TA tasks may include:

- Lead discussion sections, tutorials, or laboratory sections.
- Develop teaching materials
- Evaluate and grade examinations, assignments, or papers and record grades.
- Notify instructors of errors or problems with assignments.
- Meet with supervisors to discuss students' grades or to complete required grade-related paperwork.
- Copy and distribute classroom materials.
- Demonstrate use of laboratory/classroom equipment and enforce laboratory/classroom rules.

Resume: Computer Science

EDUCATION

Masters in Computer Science, expected Spring of 2014
B.S. in Computer Science, Spring 2012
Undergraduate GPA: 3.67/4.0

TRAINING AND EXPERIENCE

IUPUI Computer Clinic, Employee   2009-2012
     Worked on programming and computers for various customer projects.
     Developed skills in computer repair, training, and programming.

P.F. Chang's Restaurant, Server   2007-2009

LEADERSHIP AND SERVICE

Boys and Girls Club of America, Mentor   2013- Present
Computer Science Club, Secretary   2009-2012
Alpha Lambda Delta Freshman Honor Society, Member   2008-Present

Resume: Social Work

EDUCATION

Masters in Social Work, expected Spring of 2014
B.S. in Social Work, Spring 2012
Undergraduate GPA: 3.67/4.0

TRAINING AND EXPERIENCE

Midtown Mental Health Center, Employee   2009-2012
    Assisted individual case-work for patients with mental health concerns.
    Developed skills in counseling, problem solving, and administrative tasks

P.F. Chang's, Restaurant, Server   2007-2009

LEADERSHIP AND SERVICE

Boys and Girls Club of America, Mentor   2013- Present
Pre-Social Work Club, Secretary   2009-2012
Alpha Lambda Delta Freshman Honor Society, Member   2008-Present

Masculine Male Face
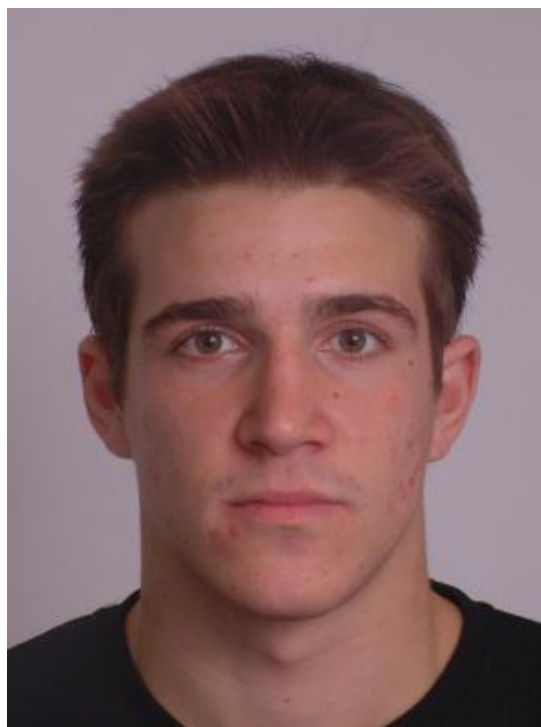
Feminine Male Face

Masculine Female Face

Feminine Female Face

Appendix B. <u>Pilot Tests</u>

Below is a list of jobs. Please rate on a scale of 1-5 how prestigious you believe the job to be, with 1 indicating *Very Low Prestige*, 3 being *Average Prestige*, and 5 indicating Very *High Prestige*. A prestigious job is one that conveys both status and respect. Please do not assign a rank if you are unfamiliar with the job.

1 Very Low Prestige	2 Low Prestige	3 Average Prestige	4 High Prestige	5 Very High Prestige

1. Elementary School Teacher
2. Dentist
3. Chiropractor
4. Retail Salesperson
5. College Professor
6. Security System Installer
7. Office Clerk
8. Accountant
9. Electrician
10. Marketing and Sales Manager
11. Counselor
12. Clergy
13. Roofer
14. Chef
15. Architect
16. Event Planner
17. Postal Service Clerk
18. Physical Therapist
19. Firefighter
20. Dishwasher
21. Human Resource Manager

22. Bartender

23. Automotive Mechanic

24. Editor

25. Librarian

26. Computer Programmer

27. Highway Maintenance Worker

28. Speech and Language Pathologist

29. Environmental Scientist

30. Veterinarian

31. Construction/Building Inspector

32. Baker

33. Plumber

34. Patrol Officer

35. Social Worker

36. Mechanical Engineer

37. Hair Stylist

38. Insurance Sales Agent

39. Chemists and Material Scientists

40. Pest Control Worker

41. Real Estate Agent

42. Dietician/Nutritionist

43. Funeral Director

44. Travel Agent

45. Housekeeping Cleaner

46. Pharmacist

47. Occupational Therapist

48. Judge

49. Butcher

50. Photographer

51. Registered Nurse

52. Cashier

53. Detective/Criminal Investigator

54. Fundraiser

55. Elementary School Teacher

56. Attorney

57. Carpenter

58. Restaurant Server

59. Financial Analyst

60. Software Developer

61. Dental Hygienist

62. Author

63. Economist

64. Janitor and Building Cleaner

Below is a list of jobs. Please rate on a scale of 1-5 how masculine or feminine you believe the job to be, with 1 indicating *Very Masculine*, 3 being *Neutral*, and 5 indicating *Very Feminine*. Please do not assign a rank if you are unfamiliar with the job.

1 Very Masculine	2 Masculine	3 Neutral	3 Feminine	5 Very Feminine

1. Elementary School Teacher
2. Dentist
3. Chiropractor
4. Retail Salesperson
5. College Professor
6. Security System Installer
7. Office Clerk
8. Accountant
9. Electrician
10. Marketing and Sales Manager
11. Counselor
12. Clergy
13. Roofer
14. Chef
15. Architect
16. Event Planner
17. Postal Service Clerk
18. Physical Therapist
19. Firefighter
20. Dishwasher
21. Human Resource Manager
22. Bartender
23. Automotive Mechanic
24. Editor

25. Librarian

26. Computer Programmer

27. Highway Maintenance Worker

28. Speech and Language Pathologist

29. Environmental Scientist

30. Veterinarian

31. Construction/Building Inspector

32. Baker

33. Plumber

34. Patrol Officer

35. Social Worker

36. Mechanical Engineer

37. Hair Stylist

38. Insurance Sales Agent

39. Chemists and Material Scientists

40. Pest Control Worker

41. Real Estate Agent

42. Dietician/Nutritionist

43. Funeral Director

44. Travel Agent

45. Housekeeping Cleaner

46. Pharmacist

47. Occupational Therapist

48. Judge

49. Butcher

50. Photographer

51. Registered Nurse

52. Cashier

53. Detective/Criminal Investigator

54. Fundraiser

55. Elementary School Teacher

56. Attorney

57. Carpenter

58. Restaurant Server

59. Financial Analyst

60. Software Developer

61. Dental Hygienist

62. Author

63. Economist

64. Janitor and Building Cleaner

Appendix C. <u>Measures</u>

One a scale of one to five, where 1 = *strongly disagree* and 5=*strongly agree*, please rate
your level of agreement with the following two statements:

1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

1. I am willing to hire this candidate for the TA position.

2. I think this candidate will be successful in the TA position.

Additional Variables/Manipulation Checks:

4. How likeable do you consider this candidate to be? (Circle one):

-3 Very Unlikable	-2	-1	0 Neutral	1	2	3 Very Likable

5. How attractive do you consider this candidate to be? (Circle one):

-3 Very Unattractive	-2	-1	0 Neutral	1	2	3 Very Attractive

6. How masculine or feminine do you consider the physical appearance of this
person to be? (Circle one):

-3 Very Masculine	-2	-1	0 Ambiguous	1	2	3 Very Feminine

7. Have you ever experienced a class with a TA? (Circle one):

Yes	No

8. Have you ever been in a position where you reviewed a candidate's resume for selection purposes? (Circle one):

Yes	No

Reading Checks:

Reading Checks for Computer Science Condition

1. Which of the following is NOT part the job description for a Computer Science TA?
   - A. Lead discussions, tutorials, or labs
   - B. Notify instructors of errors or problems with assignments
   - C. Preferably, prior background/experience in a related field
   - D. Formulate lesson plans

2. In what field is this applicant pursing a Master's degree?
   - A. Engineering
   - B. Mathematics
   - C. Computer Science
   - D. Telecommunications

3. Where did this applicant work from 2009-2012?
   - A. Computer Clinic at IUPUI
   - B. UITS at IUPUI
   - C. Geek Squad at Best Buy

4. Is this applicant male or female?
   - A. Male
   - B. Female

5. Is this applicant Caucasian/White or African American/Black?
   - A. Caucasian/White
   - B. African American/Black

Reading Checks for Social Work Condition

1. Which of the following is NOT part of the job description for a Social Work TA?
   - A. Lead discussions, tutorials, or labs
   - B. Notify instructors of errors or problems with assignments
   - C. Preferably, prior background/experience in a related field
   - D. Formulate lesson plans

2. In what field is the applicant pursuing a Master's degree?
   - A. Counseling
   - B. Sociology/Anthropology
   - C. Social Work
   - D. Legal Studies

3. Where did the applicant work from 2009-2012?
   A. Midtown Mental Health Center
   B. Valle Vista Health System
   C. Sycamore Springs

4. Is this applicant male or female?
   C. Male
   D. Female

5. Is this applicant Caucasian/White or African American/Black?
   C. Caucasian/White
   D. African American/Black

Demographic Questions:

1. What is your age?

2. What is your race/ethnicity? (Check all that apply)
   ☐ Asian/Asian American
   ☐ American Indian/Native American
   ☐ Bi- or multi-racial
   ☐ Black/African American
   ☐ Hispanic/Latino
   ☐ White
   ☐ Prefer not to say
   ☐ Other (please specify)

3. What is your gender?
   ☐ Male
   ☐ Female
   ☐ Prefer not to say

4. What is your sexual orientation?
   ☐ Heterosexual
   ☐ Lesbian
   ☐ Gay
   ☐ Bisexual
   ☐ Other
   ☐ Prefer not to say