

DISSERTATION

EFFECTS OF EMPLOYEE GENDER, OCCUPATIONAL PRESTIGE, AND GENDER
CONCENTRATION ON
IMPRESSION JUDGMENTS ABOUT EMPLOYEES

Submitted by

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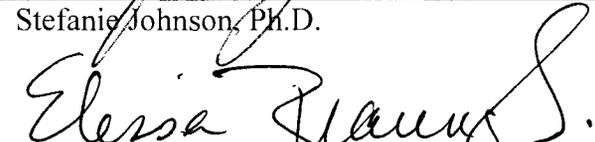
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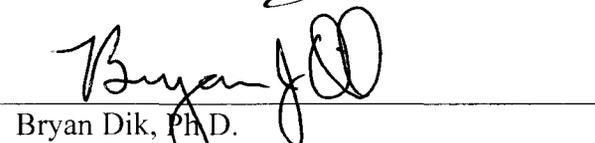
WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY SAMANTHA STRIFE ENTITLED EFFECTS OF EMPLOYEE GENDER, OCCUPATIONAL PRESTIGE, AND GENDER CONCENTRATION ON IMPRESSION JUDGMENTS ABOUT EMPLOYEES BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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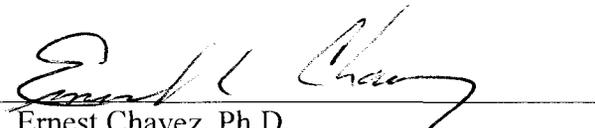

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ABSTRACT OF DISSERTATION
EFFECTS OF EMPLOYEE GENDER, OCCUPATIONAL PRESTIGE, AND
GENDER CONCENTRATION ON
IMPRESSION JUDGMENTS ABOUT EMPLOYEES

A vignette strategy was employed to assess how occupational prestige and gender interact to influence overall judgment of target employees. Specifically, ambiguous vignettes were utilized to determine the extent to which attributions associated with occupationism (i.e., prejudicial attitudes towards an individual based on occupational membership) were present for a sample of undergraduate students. Level of occupational prestige (high vs. low), gender concentration of occupation (predominately “female,” predominately “male,” gender balanced), and gender of employee (female vs. male) were manipulated in the vignettes to ascertain judgments about individuals in varied occupational settings. In addition, stereotypic gender role characteristics were assessed to determine how measurements of masculinity and femininity relate to overall impression of target employee.

There were no significant main effects or two way interactions found for occupational prestige, gender of the employee in the vignette, and gender constituency of the occupation. Results indicated that men in a predominately male, high prestige occupation were rated significantly more positively than females in the same

predominately male, high prestige occupation. Furthermore, scores of masculinity and femininity were significantly correlated with participants' overall impression of the target employee, such that stereotypic traits associated with masculinity and femininity of the target employee were related to higher ratings of the employee. Implications of the findings are explored using role congruity theory and social role theory.

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CHAPTER 1: INTRODUCTION

When adolescents wonder what they want to be when they grow up, they often are forced to consider factors beyond a cool uniform or a high salary. For decades, many individuals have made career decisions based on whether the job will elicit respect (Lorenz, 2007) or if it is “appropriate” for both men and women (Couch & Sigler, 2001). These types of factors often impact the values individuals hold about career options (Ros, Schwartz, & Surkiss, 1999). Consequently, it is important to consider how occupational prestige and gender constituency impact the ways in which people think about certain jobs. Is this information used to classify or possibly judge an individual working in a particular profession? In what ways do evaluations of firefighter differ from a nurse? In essence, are there prejudicial attitudes directed toward members of certain occupations? The present investigation aims to understand to what extent individuals make judgments of others in ways that are consistent with stereotypic schemas related to prestige, gender of employee and gender constituency of occupation.

Occupationism

Work is often a central part of an individual’s identity. The question “what do you do for a living?” can serve to classify mutual strangers who have no prior opportunity to gather identifying information. What one does for a living includes an

occupational membership, which can be a salient factor when an individual is judged by others (Hall, Hockey, & Robinson, 2007). The term *occupationism* has consequently been designated to account for the judgmental attitudes associated with an individual based on her or his membership in a particular field (Carson, 1992; Krumboltz, 1991, 1992). From this perspective, an adult who works as a receptionist, for example, may be judged as less valuable and important than an adult who works as a marketing agent. Additionally, as Carson (1992) suggests, an individual whose occupation elicits more prestige likely receives more benefits (e.g., loans and attention from governmental officials) compared to individuals with lower prestige occupational memberships.

There are varying definitions for the construct of occupationism. During his address for the Leona Tyler Award for the Society of Counseling Psychology, Krumboltz (1991) defined occupationism as “discrimination on the basis of membership in an occupation” (p. 310). The article suggested that occupationism has serious consequences and is as prevalent as other forms of prejudice (e.g., sexism). Krumboltz (1991) clarified that one can both benefit from and be harmed by occupationism. For example, he hypothesized that there is prestige in being an engineering professor, but a lack of relative status associated with being an education professor. Krumboltz (1991) argued that this discrepancy is unfortunate, because every occupation has value and can offer potential happiness regardless of prestige if it is a good fit for the employee.

Carson (1992) offered a revised definition of occupationism as “consequential acts of occupational discrimination on the basis of prestige” (p. 493). Within this

definition, Carson (1992) emphasized discrimination (i.e., judgments about occupations), as well as consequentiality, which suggests “the effects of occupationist acts may be either harmful or beneficial to an individual’s interests, depending upon the circumstances” (p. 492). From this perspective, the prestige of a particular profession dictates the nature and extent of prejudice. Similar to Krumboltz (1991), Carson (1992) understood the effects of occupationism within a continuum of potential harm, ranging from the negative implications of prejudice to the possibility of beneficial outcomes. Carson (1992) further differentiated the range of outcomes within this construct by designating undesirable occupationism (e.g., unequal income) and desirable occupationism (e.g., targeting actions that warrant punishment, such as selling drugs). Importantly in this example, it is the outcome that is desirable, not the prejudicial attitudes.

In addition to the outcomes of occupationism, Carson (1992) clarified the process by which individuals commit prejudicial acts in a vocational context. He distinguished between “strong” and “weak” evaluations of occupations and explained how these factors contribute to shallow or deep occupationism. Specifically, he argued that weak evaluation often leads to shallow occupationism when people do not attend to the depth of details inherent in a judgment regarding an individual and her or his profession. Carson (1992) argued that this type of shallow appraisal is a “limited means of discriminating between occupations and people” (p. 499). In contrast, Carson (1992) implied that strong evaluation and deep occupationism necessitate a more involved approach grounded in “the generation of widely shared beliefs about the desirability of various occupations” (p. 499). From a strong or deep evaluative

stance individuals are likely to make judgments based on a vision of how occupations relate to a good society and less from their own individual desires.

In response to Carson's (1992) article, Krumboltz (1992) clarified that "occupationism occurs when the assumptions about average occupational differences are applied to individuals, who are then treated as if the generalizations were true for them" (p. 511). According to this definition, the individual, not the occupation, is being judged based on membership in a particular profession. Krumboltz (1992) further outlined the potential harm that comes from occupationism (e.g., limiting one's career choice based on prestige) as well as factors that endorse the social desirability of occupationism (e.g., assuming competence based on a job title). For example, a surgeon could be judged as likable based on her or his job title and not by the merit of her or his personality.

Although Carson (1992) and Krumboltz (1991, 1992) provide discrepant definitions related to occupationism, both authors indicated that research is needed in this area. Specifically, given the conceptual, speculative nature of these articles, empirical research is necessary to further ascertain how people judge individuals as a function of their vocational membership.

Circumscription and Compromise Theory of Vocational Choice

According to Gottfredson (2005), in the process of choosing an occupation individuals eliminate prospective careers based on their tolerable levels of prestige and gender stereotypes. This process of circumscription helps individuals narrow their career options and is associated with the following developmental stages: orientation

to size and power (e.g., recognizing and wanting an adult career), orientation to sex roles (e.g., differentiating between what is 'suitable' work for women and men), orientation to social valuation (e.g., awareness of prestige level), and orientation to internal, unique self (e.g., searching for a profession that is personally satisfying). These stages are hypothesized to unfold in a generally sequential manner as a child develops, but the linear sequence is perhaps best conceived as a prototype or descriptive heuristic given the individual differences in developmental course.

As individuals navigate through these stages, they are forced to make choices and compromise about how to find a good occupational fit. Specifically, after the process of circumscription the individual is left with a limited range of occupations she or he deems acceptable for her or his gender, a tolerable lower limit for prestige, and a tolerable effort requirement. When circumstances require expanding that range of acceptable occupations, Gottfredson (2005) theorized that the individual would sacrifice interests first, then prestige, and then finally gender appropriateness.

There are potential detrimental consequences of career decision-making that Gottfredson's theory attempts to explain. For example, if individuals select certain jobs based on the level of occupational prestige, they may eliminate a profession for which they have intrinsic interest in order to satisfy implicit standards set by society. This type of career decision making arguably perpetuates occupationist tendencies and diminishes the worth and value of professions with lower prestige. Carson (1992) explained that "most authors refer to occupational prestige as the relative standing or status among occupations" (p. 494). However, he clarified that prestige can be dynamic given that this construct is a subjective interpretation associated with a

particular profession at a given time. Consequently, prestige values vary depending the population of interest.

Occupationism assumes that prestige exists at least somewhat independently of income and level of education. That is, although prestige is related to these factors, it is not defined by them; some occupations may be high in prestige, but associated with relatively low education (e.g., firefighter) or income (e.g., clergy). In addition, there are some occupations that can be considered low in prestige, but associated with relatively high education (e.g., elementary school teacher) or income (e.g., car salesperson). Therefore, instruments that have traditionally been used to assess Socioeconomic Status (e.g., Duncan's Socioeconomic Index) are not appropriate proxies for measures of prestige. Consequently, studies of occupationism may need to develop strategies for separating prestige from SES.

The report of the American Psychological Association (APA) Task Force on Socioeconomic Status (2007) extensively reviewed literature related to prestige and found that “the bottom line is that the various indicators of SES are not interchangeable. Each one assesses a different aspect of SES and reflects the intent and approach of the investigator” (p. 11). Consequently, many of the prestige measures provide discrepant findings and evidence of convergent validity is poor (APA, 2007). The task force further emphasized that there is limited work regarding prestige and that additional information is needed in this area.

As noted above, Gottfredson (2005) also argued that gender stereotypes associated with occupations dictate how individuals determine tolerable work. For example, from this perspective a woman with narrow gender-role ideologies might

restrict her career options to an occupation that is considered “feminine” (e.g., child care). In this way, Gottfreson’s (2005) theory of circumscription seems to echo research addressing the gender division of labor.¹

Intersections between Gender Prejudice and Work

Eckes and Trautner (2000) define gender prejudice as “the attitude that a group deserves lower social status based on gender related categorization” (p. 442). Importantly, this term is more inclusive and encompassing of both men and women’s experiences of prejudice based on their gender identification. Gender prejudice can be particularly salient in the context of work. Crawford and Unger (2004) described horizontal segregation as “the tendency for women and men to hold different jobs” (p. 366), as a societal tendency that often reinforces gender-based prejudice related to work. For example, according to the 2006 Women’s Bureau of the U.S. Department of Labor Statistics there are substantially more women than men working in such occupations as human resource managers; real estate managers; teachers; physical therapists; and registered nurses. Similarly, Cohen (2004) determined from the *Current Population Survey* in 1993 that in the following occupations women hold more than 90% of the jobs: secretaries, receptionists, and registered nurses. Similarly, there are professions that are disproportionately dominated by men (e.g., engineering, mining, and firefighting). However, it is important to note that fields that consist

¹ The terms *sex ratio* and *gender division* have both been employed to describe the composition of men and women in a particular field. Gender division suggests one is referring to the impact of the female gender on a particular field, which shifts the meaning from an essentialist understanding of biological sex to a more constructivist interpretation of the cultural implications of being female.

largely of women often carry comparatively low social status and prestige (Xu & Leffler, 1996).

The etiology of low prestige “women’s work” is complicated and likely explained in part by gender role socialization. Researchers have challenged the essentialist understanding of differences between men and women (i.e., fixed traits established at birth) and have focused on social structural theories that refer to “doing” gender (Eagly & Wood, 1999; West & Zimmerman, 1987). Doing gender is understood from a constructivist perspective, whereby individuals are taught to construct a gender consistent with what it means to be a woman or man in society. These stereotypes often extend to expectations for providing care inside a home, which can be difficult to change. For as Badgett and Folbre (1999) explain, “stereotypes are particularly resistant to change when they benefit those who have the economic and cultural power to defend them” (p. 318). Consequently, further analysis is needed to deconstruct the implications of doing gender.

Gender socialization often begins at an early age; for example, by the age of one, a child can differentiate between women and men in photographs (Leinbach & Fagot, 1993). This visual recognition often translates to awareness of gender stereotypes by the age of three (Fagot, Leinbach & O’Boyle, 1992). This is not surprising, given that from an early age girls often are given indirect messages to attend to expressiveness, while boys are told to be more instrumental (Bridges, 1993). By the time children become adults many individuals have internalized a societal “rule book” for how to act as women and men, even though differences often are exaggerated (Hare-Mustin & Marecek, 1988).

Social role theory, as explained by Eagly and Wood (1999), emphasizes that “because men and women tend to occupy different social roles, they become psychologically different in ways that adjust them to these roles” (p. 408). Although social role theorists acknowledge some genetic sex differences, they argue that most gender disparities are learned as a way to adjust to societal norms. For example, social role theory postulates that the division of labor between the sexes creates an expectation for some men and women to work in different occupations. Consequently, women, who are often socialized to be caregivers, frequently seek employment in an occupational role that fits this expectation, thus creating a cyclical pattern of gender divided labor.

Similarly, Role Congruity Theory (Eagly and Karau, 2002) argues that “a potential for prejudice exists when social perceivers hold a stereotype about a social group that is incongruent with the attributes that are thought to be required for success in certain classes of social roles” (p. 574). According to this theory, people use gender-related cues to assign defining characteristics of men (e.g., agentic) and women (e.g., communal). Thus a group that has characteristics that are perceived to match with the requirements of that group’s typical social role will be positively rated and employees will work to accommodate these social role expectations that are congruent with gender role stereotypes (Diekmann & Goodfriend, 2006). There are potential consequences for those who deviate from what is expected. For example, expectation violation theory postulates that when an individual uses a communication strategy that is not consistent with gender role stereotypes, negative evaluations are made about this individual (Jussim, Coleman, & Lerch, 1987).

The gender division of labor has been shown to influence a range of factors including attitudes and work goals (Eagly & Diekmann, 2006). Specifically, in many Western cultures, women often have received the message that they should expect and accept less power and lower status jobs (Gutek, 2001). Interestingly, women who work in lower prestigious occupations often report job satisfaction, which can be explained as an outcome of in-group comparison (Bylsma & Major, 1994). For example, female employees judged their pay based on other female employees and therefore did not consider that men may be earning more than them (Bylsma & Major, 1994). This type of social comparison could perpetuate acquiescence and ultimately fuel the gender wage gap.

Work that is lower status and that predominately consists of women often earns less money and has been deemed the “pink ghetto” (United Nations, 1991). Specifically, on average, women earn about 72 cents for every dollar that a man earns (Liu et al, 2004). This wage gap exists outside the United States as well; according to a United Nations (2000) study, women make 66 cents for every dollar made by men outside of the United States. Although these statistics can be discouraging, there is some evidence that progress is being made to decrease sexism in the workplace. In her extensive review and historical summary of women and paid work, Gutek (2001) emphasized that over the last decade there has been a significant increase in awareness about gender stereotypes. Nevertheless, Gutek (2001) clarified that issues such as sex segregation and lower wage expectations for women remain problematic.

Job satisfaction also is impacted by the gender division of work. Fitzgerald, Drasgow, Hulin, Gelfand, and Magley (1997) found that women working in

predominately “male” occupations experienced more instances of sexual harassment compared to women working in occupations that were considered predominately “female.” Importantly, sexual harassment was found to negatively correlate with outcomes such as job satisfaction and physical health (Fitzgerald et al., 1997). Furthermore, Bond, Punnet, Pyle, Cazeca and Cooperman (2004) discovered that individuals from the minority gender had significantly lower job satisfaction in positions in which there was a gender imbalance. This result demonstrated that men working in female-dominated occupations and women working in male-dominated occupations were less satisfied than individuals working in gender balanced settings.

In their qualitative study addressing non-traditional occupations for men, Cross and Bagilhole (2002) found that their male participants often reported experiencing challenges to their gender identities as exemplified in the following passage:

Caring is seen as a predominately female job because people see careers as being female. Aspects of caring like being empathetic and sensitive to people’s needs are seen as something that men can’t do—that men can’t be caring or sympathetic. It’s seen as somehow below men to do this (p. 212). (Quote from an interview: Social services day care officer, 42 years old)

From their conceptual findings, Cross and Bagilhole (2002) argued that although the men’s sense of masculinity was challenged in fields dominated by women, they addressed these challenges in a way that improved their chances for advancement over women (e.g., being assertive). Importantly, men who work in “women’s jobs” move forward and advance faster and more often than their female colleagues (Hultin, 2003). This concept echoes the glass escalator effect, which argues that although men experience prejudice in “female professions” they have a gender privilege that often

translates into opportunities for advancement (Williams, 1992). Therefore, although both men and women experience negative outcomes when working in a work environment where there is gender imbalance, men are more likely to achieve leadership roles in fields dominated by either men or women.

Although there are serious implications for the gender division of work, few empirical studies have tested how individuals are judged based on the membership in a profession that is gender imbalanced and varies in prestige. The present research aims to understand the extent to which individuals make attributions about the likeability of certain employees when stereotypic information related to gender and prestige of occupation is manipulated.

Attribution Theory

An attribution can be defined as the process by which people infer causal explanations about a particular event or circumstance. Attribution theory was originally proposed by Heider (1958) and relates to how individuals interpret behavior. This theory suggests that there is not one objective mechanism of interpretation and instead understanding is, in part, constructed by perception (see Fiske & Taylor, 1991, for a review). As Kelley and Rhodes (2002) explain in their review, “people do not have direct experience of activated traces. What people experience are thoughts and images, either detailed or sketchy, extended in time or mere fragments, unfolding with difficulty during a retrieval attempt” (p. 294). This variable experience makes sense when judgment is understood as a subjective process.

The purpose of the present study is to facilitate a deeper understanding of the attributions individuals make in response to a neutral passage based on stereotypic cues. It is expected that when forced to make judgments with limited information, individuals will rely on stereotypic-consistent responses to fill in the missing information (Payne, Jacoby, & Lambert, 2003). The idea of “gap filling” argues that people will fill missing pieces of information with attributions from their world knowledge (Owens, Bower & Black, 1979). This reliance on knowledge of the world is often referred to as a schema.

Schema Theory

Schemas are cognitive structures used to organize and interpret information efficiently. Schema theory embraces a constructivist approach and argues that humans actively create constructs or schemas as a way of understanding and incorporating experiences into a world view. This world knowledge in the form of “cultural scripts” can provide a framework from which individuals draw upon when constructing memory (Schank & Abelson, 1977). Often this world knowledge involves a stereotypic understanding of a particular construct.

Gender schema theory is a way to understand how perceptions of gender are organized by an individual. Bem (1981) argued that individuals construct meaning by a “generalized readiness to process information on the basis of the sex-linked associations that constitute the gender schema” (p. 355). Through this process an individual is socialized by cultural messages to decipher what is appropriate for women and men. There are potentially significant consequences for both women and

men who have rigid gender role identities. For example, women who endorse strict “feminine” characteristics often participate in lower status work (Eagly & Wood, 1999). In contrast, boys and men who demonstrate rigid “masculine” traits often have difficulty expressing emotion and asking for help (Pollack, 1999). Adults who exhibit both masculine and feminine traits have been shown to have greater strengths (e.g., flexible leadership qualities) in both their work and interpersonal relationships (Bosow, 2006). These associations lead to classifications of what constitutes “masculine” or “feminine” characteristics in a wide range of studies.

Stereotypes of gender-role behavior and attitudes are generally measured using quantitative instruments. For example, the Personal Attributes Questionnaire (PAQ), which was developed by Spence, Helmreich, and Stapp (1974), measures stereotypic traits associated with masculinity and femininity. The PAQ has been used to clarify topics ranging from MMPI scores (Cellucci, Wilkerson, & Mandra, 1998) to the impact of academic courses (Rechtien, 1995). One study used the PAQ to divide women into groups based on masculinity and femininity scores in order to explore how perceived rates of availability impact women’s attitudes towards prestigious male dominated fields (Bridges & Bower, 1985). The authors found that the gender role orientation (masculine and feminine) was related to perceived approval in male dominated fields, such that participants that responded in a stereotypically masculine way on the PAQ expected less approval in male dominated fields than participants who endorsed a more stereotypic feminine gender identity.

The Bem Sex-Role Inventory (BSRI) (Bem, 1974) also has been used to study gender schemas. For example, Lavalley and Pelletier (1992) used the BSRI to explore

the experience of women who work in male-dominated environments. The authors found that women in male dominated fields hold traditionally more stereotypic masculine gender schemas. Additionally, Oakhill, Garnham and Reynolds (2005) tested the automatic and immediate reliance on gender schema associations with occupations. Specifically, in their first experiment the authors had participants press a “yes” or “no” button if two terms applied to an individual (e.g., father-typist). Oakhill et al. (2005) found that participants frequently rejected the pair of words that did not fit gender schemas. For example, participants were resistant to matching the words *engineer* and *mother* together. Importantly, gender schemas are often consistent and robust. When faced with information that is discrepant to a gender schema, individuals generally make attributions to maintain schematic frameworks (Seta, Seta, & McElroy, 2003).

Duffy and Keir (2004) used an eye-tracking methodology to assess how gender stereotypes impact an individual’s ability to attend to information. Specifically, the authors used the “opposite” gender pronoun for occupations that were deemed stereotypically male (e.g., the *electrician*...carefully secured *her* ladder) and stereotypically female (e.g., the *babysitter* found *himself*...). Duffy and Keir (2004) found that participants took longer to read and had more eye movements (gazing left to right as if to re-read a sentence) when comprehending the passages that had mismatch stereotypic information and gender pronouns.

These results are consistent with the work done by Mills and Tyrell (1983) who studied proactive interference and sex-stereotypic encoding. Participants were first classified as “sex typed” or “non-sex-typed” according to the BSRI (Bem, 1974).

Participants were then asked to study three groups of gender stereotypic occupations (e.g., miner vs. nurse) and after a distracter task participants attempted to recall the presented information. Overall, participants consistently encoded and grouped occupations according to gender stereotypes, leading the authors to conclude that participants remembered occupations better if the information was congruent with gender role expectations. These findings support that gender schemas are consistent and robust, given that participants used stereotypic sex-typing as a way to organize and recall the studied occupations.

Vignette methodologies

Vignettes are often a preferred methodological approach to studying schema-related perceptions. The present study used a 2 (high vs. low occupational prestige) x 2 (male vs. female) x 3 (predominately female occupation, predominately male occupation, gender balanced occupation) factorial design to study the affect-laden biases related to occupationism and the gender division of work. A neutral passage was used to describe a fictitious employee, from which participants attributed their interpretations of the given vignettes. The vignettes were adapted using a passage containing a description of personality tendencies that was rated as an accurate self-description for 95% of participants (Dickson & Kelly, 1985; Forer, 1949). The rationale for using this passage is that if most people believe it is true for them, then it is likely neutral enough to apply to a diverse range of people. This neutrality is critical given that the author wishes to make gender, occupational prestige, and gender concentration of occupation salient.

The use of these vignettes also is supported by other studies that have used ambiguous passages as a way to influence how participants make interpretations. For example, one study used vignettes to manipulate motives as a way to understand schemas (Owens, Bower, & Black, 1979). Participants read “inkblot” vignettes in which the character’s motivations and feelings could be projected (Owens et al, 1979, p. 186). After reading the passage, half of the participants received additional background information related to the motivation of the character (e.g., the character is pregnant). After a 30 minute intervening task, a 50 item recognition test was given. The results show that a schematic understanding was used to reconstruct memory, such that participants made cognitive “leaps” to fill in the gap of information about a character’s motives with assumptions about the limited background information that was given. Specifically, participants selected items that were not present in the original vignette, but that were congruent with stereotypic information about the target individual.

Similarly, Sulin and Dooling (1972) used biographical passages and manipulated whether the participant read about a fictitious person or famous person (e.g., Hitler) in order to address how world knowledge impacts a person’s ability to recall information. They also varied whether the participant received a “key sentence” which correlated with schematic understanding of the famous person (e.g., “He [Hitler] confronted these groups directly and so silenced them” p. 257). During the recall phase, participants consistently remembered the key sentence, even when this information was not previously presented. In other words, false attributions were made to make thematic related material congruent with stereotypes of the famous characters.

The authors argued that “knowledge of the world intrudes with the more culturally common interpretation of the event to be remembered” (p. 255). Therefore, when the schema is salient, participants tend to use general knowledge, which can be stereotypic in nature, to obtain missing details.

In addition to the cognitive processes associated with gender stereotypes, likeability has also been evaluated with a vignette methodological approach. For example, Badgett and Folbre (1999) had undergraduate participants rate the attractiveness of target individuals in a variety of vignettes. Occupation was manipulated in each vignette across level of prestige (i.e., high status vs. low status) and perceived gender-role conformity (i.e., high femininity vs. low femininity). Overall, results generally indicated that participants rated female target individuals more positively in jobs that were rated as highly feminine for both high status and low status occupations (Badgett & Folbre, 1999).

Purpose of the Present Study

The present study focused on the stereotypic gender roles of different occupations and also stereotypes about occupations at various points along the prestige hierarchy. Given that stereotypes and prejudicial attitudes are sensitive topics, participants are likely to attempt to conceal biases and provide socially desirable responses (Devine, 1989). Consequently, direct measures or surveys of attitudes were not expected to capture the schemas from which people draw to interpret a neutral passage. For the present research, subtle measures were therefore needed to address occupationism. An assessment of overall impression of the target employee was used to inform the extent to which

participants responded in congruence with stereotypic information related to gender and prestige of occupation.

Additional information is needed to contribute to an understanding of how occupationism and gender prejudice interact to impact attitudes of individuals. Furthermore, the presented methodological approach provided a unique vignette strategy with the goal of contributing to the stereotype literature. Specifically, this project aims to better understand how women and men are judged in occupations that vary in prestige and gender constituency.

In addition to potential implications to inform basic research related to prejudice, there are clinical applications for the present research. For example, a client may need to process an occupationist experience in therapy, which would necessitate additional understanding of this construct. In this instance, establishing language (e.g., occupationism) may help to clarify and understand the experiences of an individual who is being judged negatively due to her or his membership in a particular occupation. There is power in naming this type of experience resulting from stereotypic attributions, because individuals would then have a framework to validate and address their experience. For these reasons, it is important to gain insight into the nature and extent of occupationism, as well as the influence that gender may have on the judgments people form about employees.

Hypotheses and Research Questions

Current theory related to occupationism hypothesizes that individuals in higher prestige occupations are more valued than individuals in lower prestige occupations

(Carson, 1992; Krumboltz, 1991, 1992). In addition, the theory of circumscription and compromise of vocational choice argues that people limit their careers based on tolerable levels of prestige and gender role suitability (Gottfredson, 2005). The work on occupationism provides a strong conceptual rationale, but empirical research is needed to evaluate the level of support for its validity. Consequently, the current study proposed that participant judgments of the target employee will reflect stereotypic schemas of prestige, such that individuals in more prestigious occupations will be judged more competent, likable, hireable, intelligent, deserving of an income raise, and have a stronger work ethic compared to individuals in less prestigious occupations.

In addition, factors related to gender also were considered because gender prejudice is harmful and pervasive in occupational settings (Eckes & Trautner, 2000). Despite some improvements, the gender wage gap and the gender division of labor remain problematic in the United States (Gutek, 2001). Given these circumstances, women are often viewed as less competent as their male colleagues and may be expected to accept lower status work (Padavic & Reskin, 2002). Thus the second hypothesis was as follows: it was expected that participant judgments of target employees will reflect stereotypic schemas of gender, such that overall, men will be judged more positively than women.

Importantly, occupations that consist largely of women tend to carry comparatively low social status and prestige (Xu & Leffler, 1996). Consequently, individuals who work in professions that are traditionally considered “women’s work” likely will be judged as less positive compared to individuals in work that is considered “men’s work.” Therefore, for the third hypothesis it was expected that

individuals working in professions that predominantly consist of men will be judged more positively than individuals working in professions that predominately consist of women.

It also was expected that participant judgments will be congruent with gender role stereotypes when considering the interaction of gender, prestige, and gender concentration of work. However, given the limited amount of research in this area, specific hypotheses of these comparisons were not appropriate. Consequently, the final research question attending to these variables was: What will the interaction between gender of target employee, level of prestige, and gender concentration look like for different occupations?

In addition, a secondary purpose of this study is to explore how stereotypic masculinity and femininity traits of the target employee impact overall impression. Gender role attitudes play an important role in the work place, especially when there are perceived incongruent attributes for a particular occupation as outlined by Role Congruity Theory (Diekmann & Goodfriend, 2006; Eagly & Karau, 2002). For example, according to this theory, individuals will be rated higher in roles that are perceived to match with the requirements of that job, such that individuals judged as feminine will be rated higher in jobs that are perceived to require stereotypic feminine traits. Stereotypic gender role characteristics were assessed for the target employee in this study using the Personal Attributes Questionnaire (PAQ). The following exploratory questions were evaluated in order to investigate the relationship of gender personal attributes and overall impression of employees.

1. What is the relationship between masculinity scores (PAQM) and femininity scores (PAQF) for target employees?
2. How are scores of masculinity scores (PAQM) and femininity (PAQF) correlated with overall impression?
3. Is there a significant difference between the correlation of PAQM and overall judgment and the correlation of PAQF and overall judgment?
4. Will the relationship between the PAQ scores (predictor) and overall judgment scores (dependent outcome variable) change across levels of the following moderators?
 - a. Gender of employee (Nick or Nicole)
 - b. Gender concentration of occupation (predominately male, predominately female, gender balanced)
 - c. Occupational prestige (high prestige, low prestige)

CHAPTER 2: METHOD

Participants

The participants were a sample of 241 undergraduate college students (166 women, 75 men, mean age = 18.75) enrolled in Psychology courses at a large research university in Colorado. The ethnic breakdown of this sample was as follows: 85.9% White, Non-Hispanic/Euro-American, 6.2% Latina/Hispanic, 3.3% African American, 2.5% Asian-American, 1.7% Native American and .4% Other. Participants were recruited via the departmental website listing of research opportunities for Psychology courses and received class credit for their participation. Participants were informed that answering the questionnaires was voluntary. In addition to convenience, the rationale for using an undergraduate sample was based on the developmental relevance of selecting a career, which is common for individuals in this age range in the United States. Given that many undergraduate students are still presumably evaluating career options, these students can serve as important indicators of how individuals make judgments about occupational memberships.

Procedure

Prior to testing the primary hypotheses, two pilot studies were conducted. The goal of these pilot studies was to strengthen the vignette used in the present study. Specifically, the first pilot study focused on the content of the vignette (e.g., length

and language used in the passage) and the questions that followed the passage. The second pilot study focused on the selection of six occupations with varied levels of perceived prestige and gender constituency. After these pilot studies were completed an online questionnaire was administered and manipulation checks were conducted to ensure that the pilot study data was consistent with the data collected from the online study.

Pilot Study # 1. The first pilot study was conducted to assess clarity and effectiveness of the vignette case study. Therefore, the neutral passage was piloted as a class activity in an undergraduate psychology course. From this initial screening, the follow up questions to the vignette were revised and feedback was examined regarding the occupations selected for the vignette. Specifically, this initial pilot study reinforced the need to include a second pilot to assess how undergraduate students rank occupations regarding level of prestige, level of income, level of education and gender constituency of profession.

Pilot Study #2. Therefore, a second pilot study was conducted where participants were given a list of occupations and asked to rank the above factors (i.e., level of prestige, level of income, level of education and gender constituency of profession). These factors were used to select an optimal combination of occupations that provide the most adequate representation of the salient variables (e.g., level of prestige, gender constituency of profession). In other words, the pilot study was used to balance level of income and education in order to select professions that are similar in these aspects, but differ in level of prestige and gender constituency.

Overall, 34 occupations were rated (see appendix A). These job titles were selected based on previous research (Duffy & Keir, 2004; Johnson, Podratz, Gibbons, & Dipboye, under review; Mills & Tyrell, 1983; Oakhill et al., 2005) and established occupational databases (U.S. Bureau of Labor Statistics, Employment and Earnings, January 2006 issue and the Harris Poll of Occupational Prestige, www.harrisinteractive.com). A total of 268 students from Introduction to Psychology were asked to estimate the prestige level, annual income, level of education and the gender concentration of employees for the given list of occupations. Specifically, prestige level was rated using a 100 point scale (0 = least prestigious and 100 = the most prestigious), annual income was estimated with a dollar amount that the average employee earns in this field, level of education was estimated by identifying the most common degree held by an employee in this field (1 = high school, 2 = associates, 3 = undergraduate, 4 = masters, 5 = doctorate), and finally gender concentration was estimated with a percentage of men and women in each profession where m = men and w = women (e.g., m = 25% and w = 75%). Results are presented in Appendix B.

The following six occupations were selected from the initial list given in the second pilot study: nurse, receptionist, medical technician, mailroom clerk, firefighter, and car salesperson. These occupations were selected based on their estimated prestige level and gender concentration. Although level of education and estimated income were clearly related to prestige and gender concentration (e.g., higher prestige occupations were generally thought to earn more money, require more education, and employ men), effort was made to select occupations for which these factors were

within as small a range as possible in order to maximize the salience of the independent variables (e.g., prestige and gender concentration).

Specifically, the final six occupations were selected based on the following criteria. Gender concentration was established by selecting occupations that were rated as at least 75% concentrated by one gender. For example, the predominately female jobs were nurse and receptionist, both of which participants indicated that women employees made up 75% of the overall workforce in these fields. High prestige occupations were selected based on prestige ratings of 70 or higher out of 100. Low prestige occupations were selected based on prestige ratings of 30 or lower. Results for the final six occupations are presented in Appendix C.

Online questionnaire. Once the occupations were selected for the vignette, a secured web-based questionnaire was used to collect data. Participants were told that the purpose of the study was to explore thoughts related to a person's work experience and personality. Participants were randomly assigned to conditions and e-mailed a link to the consent form, demographic information questionnaire (Appendix D) and the case vignette (Appendix E). The instructions for the vignette were as follows:

You will be asked to read the below vignette and then respond to a series of questions, some of which may require you to make judgments based on the limited information available to you. We are interested in your thoughts about a person's work experience based on information about the person's personality. If you are unsure of how to answer, just give your best guess.

The participants were then given a debriefing form, which included contact information for the researcher in the event that they have questions or concerns regarding the study. The estimated time for completion of the questionnaire was approximately 30 minutes.

Independent Variables

The following independent variables were evaluated in this study: gender of target employee (male, female), occupational prestige (high, low), and gender concentration of occupation (predominately male, predominately female, gender balanced).

Gender of target employee. The gender of the target employee was manipulated in the vignette (see appendix E). Specifically, participants were given a passage about a female employee (Nicole) or a male employee (Nick).

Occupational Prestige. The report of the American Psychological Association (APA) Task Force on Socioeconomic Status (2007) was used to inform how prestige was measured for this study. The findings of this report discovered that there are distinct components to SES and measures of prestige often exhibit poor indicators of convergent validity (APA, 2007). Given the nature of occupationism, an attempt was made to isolate prestige in a pilot study (i.e., income and educational level were held constant, while focusing on the status associated with a group of occupations). Participants were, therefore, given a passage that included a “high” prestige occupation (e.g., firefighter) or a “low” prestige occupation (e.g., receptionist). (Additional information about the selection process of these occupations can be found in the procedure section.)

Gender concentration of occupation. The following three levels of gender concentration of occupation were evaluated: predominately male jobs (e.g., firefighter), predominately female jobs (e.g., nurse), and gender neutral jobs (e.g.,

medical technician). Again, given that this study was a between subjects design, participants responded to one of these three types of occupations. These occupations were selected based on the results of the second pilot study (see procedure section for more information).

Manipulation check

Manipulation checks were obtained during the study and results were reasonably consistent with results from the second pilot study. The results for the final six occupations also were compared and were relatively congruent with previous ratings of occupations (Duffy & Keir, 2004; Harris Poll of Occupational Prestige; Johnson, Podratz, Gibbons, & Dipboye, under review; Mills & Tyrell, 1983; Oakhill et al., 2005; U.S. Bureau of Labor Statistics). Additional information is provided in Appendix F and in the results section.

Instruments

Table 1 provides the means, standard deviations, and the ranges of scores for the above continuous variables under analysis in the present study (i.e., overall impression of target employee, masculinity rating of target employee, and femininity rating of target employee). All scale scores were tested for normality and were graphed to examine the distribution for the sample. All of the distributions were reasonably normal and relationships among them were linear, and thus the assumptions of the required analyses were met.

Table 1

Descriptive Statistics

Variable	<i>n</i>	M	SD	Minimum	Maximum
1. Overall Impression	237	3.76	.81	1.00	6.00
2. Masculinity (PAQM)	228	24.92	3.31	16.00	34.00
3. Femininity (PAQF)	230	23.25	3.47	16.00	34.00

Overall impression scale. The following six dependent variables were combined into one comprehensive rating of overall impression of the employee described in the vignette: degree of competency, confidence in hiring, likeability, perceived work ethic, intelligence, and the extent to which the target employee was deserving of a raise. The seventh question “Nicole/Nick was called into a meeting with her/his supervisor because ___” was omitted from the scale because this item demonstrated a relatively low correlation with the other six items and was presented in a different format (i.e., it was a multiple choice question, when the other items were presented in a Likert-type response format).

This comprehensive rating of the remaining six items included items that measured degree of competency, confidence in hiring, likeability, perceived work ethic, intelligence, and the extent to which the target employee was deserving of a raise. An exploratory factor analysis was completed to assess the factor structure of item responses. Specifically, Generalized Least Squares factor extraction was used and the scree plot was examined to determine that the one factor solution best fit the data. Results suggested that the items therefore measure a single factor, which supported the

decision to treat the summed scores as a single dependent variable. The items also demonstrated adequate evidence of internal consistency (Cronbach's $\alpha = 0.76$) and therefore provide a synthesized approach to understanding participants' overall judgments of the employee described in the vignette. Correlations and results from the factor analysis are presented in Appendices G and H respectively.

Personal Attributes Questionnaire (PAQ). The PAQ developed by Spence, Helmreich, and Stapp (1974) measures stereotypic traits associated with masculinity and femininity. The PAQ consists of 24 items that use a five-level response continuum (e.g. *Not at all emotional...A...B...C...D...E...Very emotional*). Participants are asked to select a response along this continuum for behaviors or traits stereotypically related to instrumentality (agency) or expressivity (communication) (Ward, Thorn, Clements, Dixon, & Sanford, 2006). The scores from 8 of the 24 items are summed to provide an overall score for the femininity scale (PAQF). Some sample items from this scale include items like *Very submissive...A...B...C...D...E...Very dominant* and *Not at all understanding of others...A...B...C...D...E...Very understanding of others*. The scores from 8 of the remaining 24 items are summed to provide an overall score for the masculinity scale (PAQM). Some sample items from this scale include items like *Not at all independent ...A...B...C...D...E...Very independent* and *Very passive...A...B...C...D...E...Very active*). Higher scores indicate a greater degree of femininity (on the femininity scale) and masculinity (on the masculinity scale).

The femininity and masculinity scale have demonstrated adequate evidence for reliability among male ($\alpha = .76$) and female ($\alpha = .73$) college students (Helmreich, Spence & Wilhelm, 1981). In addition, support for construct validity has been shown

with correlations in expected directions with scores on measures of self-esteem and neuroticism (Spence, Helmreich, Holahan, 1979). The scale is presented in Appendix I.

The PAQ was modified to fit the current study. Specifically, instead of asking participants to respond to items regarding their own attributes, participants were asked to answer regarding the assumed characteristics of the vignette employee (i.e., Nick or Nicole). The purpose of this questionnaire was to ascertain how masculine and feminine the participant viewed the vignette employee. For example, participants were asked to select a letter along the given continuum for the target employee (e.g., Nicole is “Not at all competitive...A...B...C...D...E...Very competitive”). The masculinity and femininity scores were subsequently used to gather additional information about the vignette employee, not the participant. Internal consistency reliabilities for the femininity scale (PAQF) and masculinity scale (PAQM) among participants in the present study were $\alpha = .68$ and $\alpha = .66$, respectively. These values are slightly lower than the recommended standard of .70 for research use (Nunnally, 1978). However, due to the exploratory nature of the present investigation, the decision was made to proceed with examination of the research questions.

Demographic Information Questionnaire. The demographic information questionnaire asked participants to indicate their age, sex, year in school, ethnicity, parents' income, college major and minor, and current level of education and occupation, if applicable (see Appendix E). This information was used to gather background information about the sample.

CHAPTER 3: RESULTS

Overview

The present study explored how occupational prestige and gender interact to influence overall judgment of target employees. Specifically, ambiguous vignettes were utilized to determine the extent to which attributions associated with occupationism were present for a sample of undergraduate students. Level of occupational prestige (high vs. low), gender concentration of occupation (predominately female, predominately male, gender balanced), and gender of the employee (female vs. male) were manipulated in the vignettes to ascertain judgments about individuals in varied occupational settings. In addition, stereotypic gender role characteristics were assessed to determine how measurements of masculinity and femininity relate to overall impression of target employee.

Manipulation check of occupation ratings

In order to test the extent to which the levels of the independent variables were effectively represented in the vignette, manipulation checks were conducted during the online study. Specifically, ratings of prestige, gender concentration, level of education, and estimated income were assessed during the second pilot study and again during the online study. Results from the manipulation checks are presented in Appendix D. Importantly, participants from the second pilot study and final study

were selected from the same population (i.e., Introductory Psychology students from the same university during the same semester).

In general the second pilot study findings were congruent with the results from the manipulation checks. However, high prestige occupations were rated less prestigious in the manipulation check compared to ratings from the second pilot study data. In contrast, the low prestigious jobs were rated more prestigious in the manipulation check data compared to the results from the second pilot study. Consequently, the magnitude of difference for prestige scores was greater for the second pilot study compared to the manipulation check results. However, overall the effectiveness of the manipulations for prestige and gender concentration was sufficient to proceed with the tests of the primary hypotheses.

Effects of Prestige, Employee Gender, and Gender Concentration

According to hypotheses one through three, it was expected that participant judgments of the target employee would reflect stereotypic schemas of prestige, gender, and gender concentration, such that individuals in more prestigious occupations would be judged more positive compared to individuals in less prestigious occupations, men would be judged more positively than women, and individuals working in professions that predominantly consist of men would be judged more positively than individuals working in professions that predominately consist of women. In order to test hypotheses one through three, results were analyzed using a three way factorial univariate analysis of variance (ANOVA). As seen in Table 2, there were no significant main effects found for occupational prestige ($F [1, 225] =$

1.26, *n.s.*), gender of the employee ($F [1, 225] = 0.17, n.s.$), and gender constituency of occupation ($F [1, 225] = 0.27, n.s.$). In addition, there were no significant two way interactions found between occupational prestige and gender of employee ($F [1, 225] = 1.39, n.s.$), gender of employee and gender concentration of occupation ($F [2, 225] = 0.78, n.s.$), and occupational prestige and gender concentration of occupation ($F [2, 225] = 0.15, n.s.$). Consequently, hypotheses 1-3 were not supported.

Regarding the first research question (i.e., What will the interaction between gender of target employee, level of prestige, and gender concentration of occupation look like?), results presented in Table 2 indicated that there was a significant three-way interaction between occupational prestige, gender of the employee, and gender constituency of occupation ($F [2, 225] = 4.10, p < .05$). Post hoc tests were completed using Fisher's Least Significant Difference (LSD). As seen in Table 3 and Figure 1, men in a high prestige, predominately male occupation were rated the highest in overall impression. This group was significantly different than all other groups, except for the following conditions: women in a high prestige, gender balanced occupation; women in a high prestige, predominately female occupation; and women in a low prestige, predominately male occupation. The most pronounced difference was that participants rated males in a high prestige, predominately male occupation ($M = 4.32$) significantly higher ($p < 0.05$) than females in a high prestige, predominately male occupation ($M = 3.50$). Further analyses focused on exploring this largest difference.

Table 2

ANOVA Summary Table for 3 Way Interaction between Gender of Target Employee (GenVig), Prestige of occupation (Prestige), and Gender Concentration of Occupation (GenConcen).

Source	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Corrected Model	9.30	11	0.85	1.32	0.21
Intercept	3331.19	1	3331.19	5214.19	0.00
GenVig	0.11	1	0.11	0.17	0.68
Prestige	0.80	1	0.80	1.26	0.26
GenConcen	0.35	2	0.18	0.27	0.76
GenVig x Prestige	0.89	1	0.89	1.39	0.24
GenVig x GenConcen	1.55	2	0.78	1.22	0.30
Prestige x GenConcen	0.30	2	0.15	0.23	0.79
GenVig x Prestige x GenConcen	5.24	2	2.62	4.10	0.02*
Error	143.75	225	0.64		
Total	3511.53	237			
Corrected Total	153.04	236			

Note. *Correlation is significant at $p < .001$ (2-tailed). Dependent Variable: Overall Impression of Target Employee

Table 3

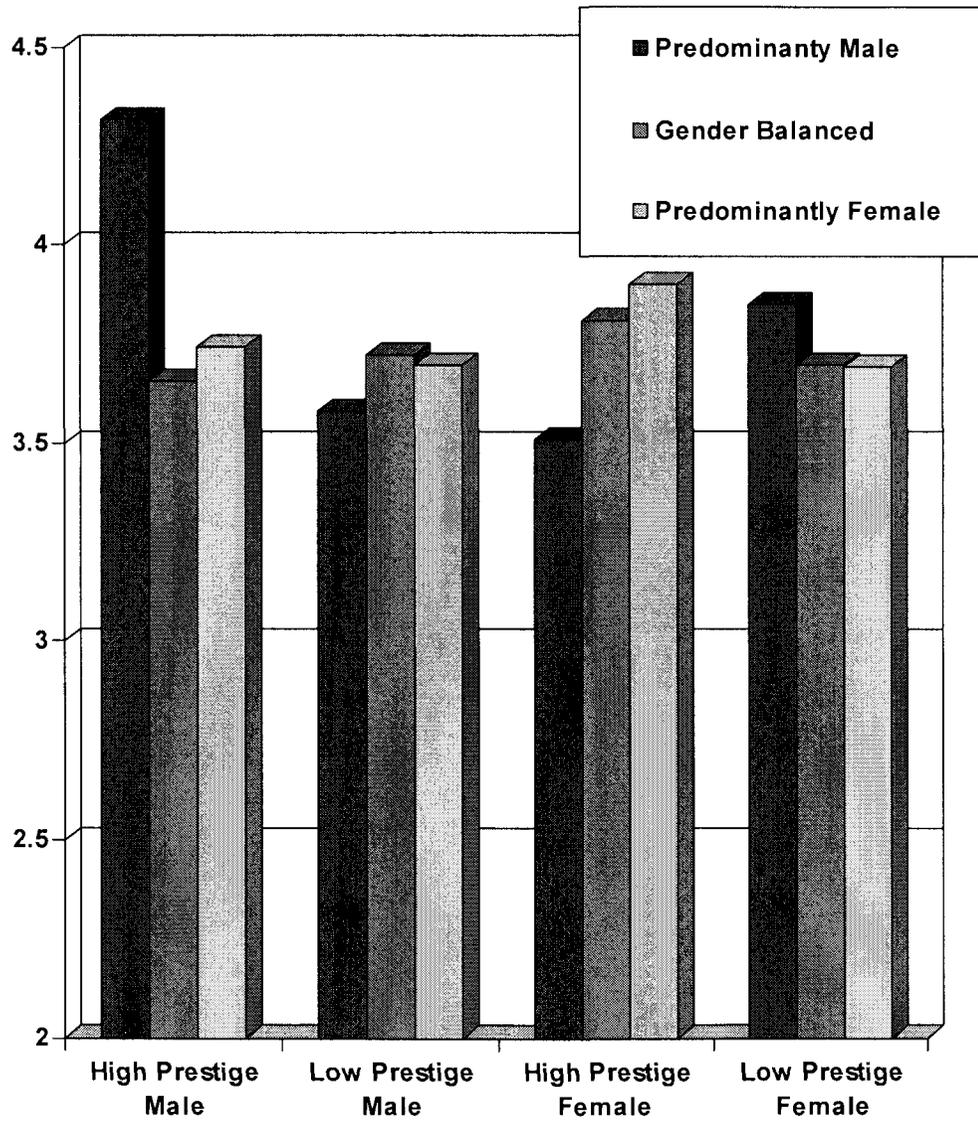
Difference in Means for 3 Way Interaction between Gender of Target Employee, Prestige of occupation, and Gender Concentration of Occupation

Gender of Target Vignette	Level of Prestige	Gender Concentration	Mean	SD
Male	High	Predominately male	4.32 a	.18
		Gender balanced	3.66 b	.19
		Predominately female	3.74 b	.19
	Low	Predominately male	3.58 b	.17
		Gender balanced	3.72 b	.17
		Predominately female	3.70 b	.19
Female	High	Predominately male	3.51 b	.17
		Gender balanced	3.81 a, b	.17
		Predominately female	3.90 a, b	.18
	Low	Predominately male	3.85 a, b	.17
		Gender balanced	3.70 b	.19
		Predominately female	3.69 b	.17

Note. Means with a common letter are not significantly different from each other ($p > .05$) using the Least Significant Difference (LSD).

Figure 1

Overall impression ratings as a function of gender of target employee, prestige of occupation, and gender concentration of occupation



PAQ Analyses

In order to address research questions two and three, bivariate correlations were conducted. Some of the variables were found to be highly correlated with each other; Table 4 presents the intercorrelations for the variable scores.

Table 4

Intercorrelation matrix of continuous variables

	1.	2.	3.
1. Overall Impression	1.00		
2. Masculinity (PAQM)	0.33**	1.00	
3. Femininity (PAQF)	0.32**	-0.10	1.00

Note. **Correlation is significant at $p < .001$ (2-tailed).

Regarding the research question addressing the relationship between masculinity and femininity scores for target employees, results showed that stereotypic masculinity scores (PAQM) were not correlated with stereotypic femininity scores (PAQF), $r = -0.10$, *n.s.* In addition, participant responses were assessed using a bivariate correlation to answer research question about the relationship between scores of masculinity and scores of femininity with overall impression. Results indicated that there was a significant correlation between stereotypic masculinity ratings and overall impression of employees, $r = .33$, $p < 0.001$. Results also indicated that there was a

significant correlation between stereotypic femininity ratings and overall impression, $r = .32, p < 0.001$. However, in order to answer research question number four, a William's T Test was used to compare dependent correlations, and there was no significant difference found between overall ratings of target employee and masculinity (PAQM) and femininity (PAQF) scores of target employee, $t(213) = .064, n.s.$

Given that there were significant correlations between the ratings of masculinity and femininity with overall judgment, it was important to understand if these correlations are stronger with consideration of additional factors. Specifically, the author wanted to know if the relationship between the PAQ scores (predictor) and overall judgment scores (dependent outcome variable) changes with the inclusion of the following moderators: gender of employee (Nick, Nicole), gender concentration of occupation (predominately male, predominately female, gender balanced), and occupational prestige (high prestige, low prestige, middle prestige). In other words, all three moderator variables in the present study were hypothesized to influence the relation of gender role (PAQM and PAQF) and outcome variable (overall judgment) such that the magnitude of the PAQM-overall judgment and PAQF-overall judgment relations would vary across levels of the moderator variable being tested (Male or female employee, predominately male, predominately female, gender balanced work, and high or low prestige work). Hierarchical multiple regression analyses were conducted using guidelines recommended by Frazier, Tix, and Barron (2004) to explore this final research question. None of the moderators were found to

significantly change the relationship between gender role ratings and overall impression. Results are noted in Appendix J.

As a final exploratory analysis, hierarchical multiple regression analyses were conducted to test for a possible mediating effect to explore the nature of the significant three-way interaction found. Specifically, ratings of masculinity were assessed as a mediator of the relationship between gender of the target employee and overall impression within a high prestige, predominately male occupation. In other words, the question being examined was: Is the difference found in the significant three-way interaction (i.e., male firefighters are rated significantly higher than female firefighters) explained by the target ratings of masculinity? Unfortunately, after isolating firefighters, the sample size was 42, which is significantly less than the 200 recommended by Hoyle and Kenney (1999) for adequate power when testing for a mediating effect. The four steps of mediation as outlined by Frazier, Tix and Barron (2004) are as follows: (1) show a significant relationship between predictor and outcome, (2) show a significant relationship between the predictor and mediator, (3) show a significant relationship between the mediator and outcome, and (4) show that the relationship between predictor and outcome is significantly decreased when the mediator is included in the analysis. Analyses were discontinued after the second step, because the predictor and mediator were not significantly correlated. Therefore, the conditions were not met to precede with the mediation analyses (Frazier, Tix, & Barron, 2004).

CHAPTER 4:

DISCUSSION

The primary purpose of the present study was to explore stereotypic gender roles of different occupations and also stereotypes about occupations at various points along the prestige hierarchy. Additional information was needed to determine how occupationism and gender prejudice interact to impact attitudes of individuals. Consequently, this study aimed to better understand how women and men are judged in occupations that vary in prestige and gender constituency. A secondary purpose was to explore how ratings of masculinity and femininity relate to overall impression of target employee.

Results indicated that there were no significant main effects found for gender of target employee, occupational prestige, or gender concentration of occupation. Put another way, participants did not appear to respond in ways that were congruent with stereotypes of gender (Guttek, 2001; Xu & Leffler, 1996), such that results indicated that there was not a significant difference between the overall impression ratings for female and male employees and predominately female occupations and predominately male occupations, respectively. Similarly, given the conceptual findings associated with occupationism (Carson, 1992; Krumboltz, 1991, 1992), it was unexpected that results showed no significant difference between high prestige occupations and low prestige occupations.

One possible explanation for the lack of significant main effect findings could be related to the occupations that were selected for the present study. For example, main effects might have been significant if different occupations were analyzed. Given that

there are over 12,000 occupations in the Dictionary of Occupational Titles, it is possible that other occupations could better capture the variables being manipulated in the present study.

In addition, the way in which occupations were selected may have been problematic. For example, identification of occupationist judgments may not be sufficiently apparent when isolating prestige and gender concentration. Consequently, prejudicial attitudes on the basis of occupational membership may depend more on income level and education requirements (which were controlled in the present study) rather than on occupational prestige and gender constituency in isolation. Given the exploratory nature of this study, these results warrant replication; future studies may benefit from manipulating education level and income as well as factors like prestige, rather than treating the former variables as controls.

In addition, the vignette that was used may not provide the most effective way to manipulate gender concentration of occupation and occupational prestige. For example, it is possible that participants identified with the target employee and consequently rated that individual positively without regard to other factors. According to the rater/ratee congruence hypothesis (Pazy, 1986), participants who see themselves as similar to the target individual will be more likely to make positive evaluations. Future studies could attempt to create a vignette that is ambiguous, but not easily associated with participants. This would require a pilot study (and subsequent manipulation check) to measure the extent to which participants identify with the target employee.

Additional methodological factors may also account for the limited number of significant findings in this study. It is possible that the manipulations were not strong

enough, thus creating the possibility of a Type II error. For example, the magnitude of difference between prestige scores for “male” occupations was stronger than “female” occupations. Put another way, firefighters were rated more prestigious than nurses and car salespeople were rated less prestigious than receptionists. Therefore, the “female” occupations of nursing and receptionist may not have been distinct enough to capture the concept of prestige. In order to make this manipulation stronger, further pilot tests could be completed to make status more salient.

In the present study male firefighters were rated higher than the majority of other groups. This could be explained in part by the role firefighters played in the tragic events of September 11th, 2001. Specifically, Goren (2007) found that after the national grief experienced from the terrorist attacks on New York City, the United States responded to the pain and helplessness by focusing on the heroic actions of firefighters. This idealized interpretation of firefighters, therefore, may account for participants positive overall judgments of this particular occupation. However, importantly, the largest difference in overall judgment scores was between male firefighters and female firefighters.

The significant three way interaction (participants rated males in a high prestige, predominately male occupation significantly higher than females in the same high prestige, predominately male occupation) is consistent with Social Role Theory (Eagly & Wood, 1999) as well as Role Congruity Theory (Diekmann & Goodfriend, 2006; Eagly & Karau, 2002). There may be a perception that male firefighters are more competent than female firefighters due to the assumed attributes that generate success in this field. According to this theory, if participants used gender-related cues to judge firefighters, a man might “fit” better than a woman in this occupation. Thus, there may be a perceived

job requirement of firefighters (e.g., protector) that participants attribute to be a better match with the typical social role expectations that are congruent with male gender role stereotypes.

Interestingly, according to Role Congruity Theory women in predominately female jobs should be judged more positively than men in these same occupations. However, there was no significant difference found between female nurses and male nurses. This could be explained by the glass escalator effect (Williams, 1992), which argues that men who work in predominately female occupations move forward and advance faster than their female colleagues. Male nurses, therefore, may benefit from a glass escalator, while female firefighters may hit a glass ceiling. Although men experience prejudice in “female professions” there may be gender privilege associated with being a man that translates into higher ratings of overall impression (Hultin, 2003). Consequently, participants may have used different criteria to judge target employees in different occupations, with the outcome resulting in a higher rating for male nurses compared to female firefighters.

This finding could be further clarified with mediation analyses. Future studies could increase the number of participants in order to meet the requirements to answer the question “do ratings of masculinity change the relationship between gender and overall impression within high prestige, predominately male occupations?” In other words, can the finding that male firefighters are rated significantly higher than female firefighters be explained by the ratings of masculinity for the target employee? Future studies should note that Hoyle and Kenney (1999) recommend 200 participants for adequate power for mediation analyses.

Regarding the finding that measurement of stereotypic masculinity traits were not correlated with femininity traits, results suggested that these scales were measuring distinct characteristics and that these constructs were independent. This is congruent with past research (Helmreich, & Stapp, 1974; Ward, Thorn, Clements, Dixon, & Sanford, 2006). In addition, results indicated that target employees who were rated more masculine or feminine were rated more positively. Conversely, if the vignette employee was not perceived to have a strong stereotypic gender role identity, she or he was rated more negatively. However, the relationship between overall impression and masculinity scores was not significantly different compared to the relationship between overall impression and femininity scores.

At this point it may be reasonable to speculate that participants were drawn to those vignette employees that they perceived to be distinctive in stereotypic gender role attributes. In other words, it appears that a higher rating in stereotypic gender characteristics was seen as positive, regardless of whether a person was perceived to be masculine or feminine. This is consistent with findings that demonstrate participant preference for defined and stable personality traits when rating target individuals (Shaw & Steers, 2001).

This relationship, however, does not answer the question: Is there a more specific factor (e.g., level of prestige) that might be a moderator in the relationship between PAQ scores and overall judgment? For example, does the level of prestige (high vs. low) change the relationship between PAQ scores and overall judgment, such that a high prestige job might strengthen the relationship between masculinity scores

and overall judgment? After several analyses, no significant moderation findings were found for this relationship.

One interesting implication of these non-significant findings, suggests that gender of the target employee does not change the relationship between PAQ scores and overall judgment. For example, femininity scores were not correlated stronger with overall judgment for Nicole compared to Nick. Similarly, masculinity scores were not correlated stronger with overall impression for Nick than Nicole. This finding is somewhat discrepant from Social Role Theory, which would argue men who are rated more masculine would be rated higher and women who are rated more feminine are rated higher. It is possible that the participants in the present study valued higher ratings of masculinity and femininity (as seen by the significant correlation between PAQ scores and overall impression described previously) above congruent gender roles (men as masculine and women as feminine).

The lack of significance also may be related to the way that masculinity and femininity were measured in this study. Given that the PAQ is generally used as a measure of participant gender role attributes, the modification to target employee gender role may have impacted the results. Specifically, the present study was interested in how participants rated the vignette employee, and did not measure the stereotypic gender characteristics of participants. This modification may explain the low demonstration of evidence for reliability for the PAQ scores. Future studies could use multiple measures for stereotypic gender role characteristics in order to provide convergent validity. Finally, it is important to note that if the vignettes presented a

methodological concern (as described previously), they could also negatively impact the moderation analyses with the PAQ.

Future studies could also explore occupationist judgments within a different context. For example, it will be important for future studies to include a more diverse sample in order to improve generalizability. It would be interesting to see how employees who are in a particular field rate target individuals in that same profession. For example, would engineers rate women and men in their field differently? How would these ratings compare to other employees in a less prestigious occupation?

The potential implications of this study range from social justice relevance to clinical applications. From a scientist-practitioner model, this line of research provides important implications to how occupationist judgments impact clinical work. When helping clients in the process of finding a satisfactory occupational fit, it may be advantageous to include a discussion of occupationism in the developmental tasks associated with the process of circumscription (Gottfredson, 2005). Mental health professionals and career counselors may also need additional information about the nature and extent of occupationism in order to inform their interventions. For example, clarification about occupationist attributions will help counselors provide services to meet the diverse needs of individuals who may require help addressing stereotypic biases in the workplace.

In an extensive report about the status of women in the world, the United Nations (2000) determined that women need to be earning better wages and working in accessible jobs regardless of gender concentration. However, some individuals may limit their future job prospects based on what is perceived as “tolerable” according to

gender stereotypes (Gottfredson, 2005). Given this predicament, it will be important to continue to explore the attitudes associated with different occupations and how this impacts future career choice. Future studies could study a population using the career services at a university in order to better inform how occupationist judgments narrow the process of circumscription when making decisions about future career options.

Prejudice is often multidimensional; “isms” frequently co-exist and create intersections of oppression. The presented study aimed to better understand the layers of intolerance associated with attributions made based on stereotypic schemas associated with both gender and prestige of occupation. These judgments need to be assessed to better understand the limitations from which people work, but are not meant to be a punitive measure of those who make the attributions. As Lorde (1984) explains, “certainly there are very real differences between us of race, age, and sex. But it is not those differences between us that separate us. It is rather our refusal to recognize those differences, and to examine the distortions which result from our misnaming them and their effects upon human behavior and expectation” (p. 6). The present research aspires to address Lorde’s call to recognize differences not as a way to separate, but as way to develop a more meaningful, cohesive perspective of diversity.

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Appendix A

Please estimate the prestige level, annual income, level of education and the sex-ratio of employees for the list of occupations below.

PRESTIGE LEVEL: rate using a 100 point scale (0 = least prestigious and 100 = the most prestigious)

ANNUAL INCOME: estimate a dollar amount that the average employee earns in this field

LEVEL OF EDUCATION: estimate the most common degree (high school, associates, undergraduate, masters, doctorate) held by an employee in this field

SEX-RATIO: write whether the estimated percentage of men and women in each profession where m = men and w = women. These percentages should equal 100 (e.g., m = 25% and w = 75%).

OCCUPATION	PRESTIGE LEVEL	ANNUAL INCOME	LEVEL OF EDUCATION	SEX- RATIO
	(0-100)	(Avg. \$)	(Avg. Degree)	(m = ___%; w = ___%)
Accountant				
Architect				
Auto mechanic				
Building contractor				
Civil engineer				
College professor				
Crossing guard				
Federal judge				
Firefighter				
Flight attendant				
Kindergarten teacher				
Journalist				
Miner				
Nurse				
Physician				
Pilot				
Public relations specialist				
Real estate agent				
Receptionist				
Secretary				
Small business owner				
Social worker				
Stock broker				
Surgeon				

Appendix B

Job Rating Data Collected in Pilot Study

Occupation	Level of prestige	Estimated income	Level of education	% of men	% of women
Accountant	70	60000	3	60	40
Advertising sales executive	65	60000	3	60	40
Auto mechanic	40	40000	2	90	10
Bartender	30	30000	1	50	50
Building contractor	65	70000	3	80	20
Civil engineer	80	80000	5	70	30
Car salesperson*	30	40000	1	75	25
Carpenter	45	40000	2	80	20
Computer systems manager	68	60000	3	70	30
Dental hygienist	65	60000	3	40	60
Director of security	50	50000	2	80	20
Financial analyst	70	65000	4	60	40
Firefighter*	80	45000	2	85	15
Flight attendant	40	40000	2	20	80
Health service manager	60	50000	3	50	50
Human resource manager	60	50000	3	50	50
Kindergarten teacher	60	35000	3	20	80
Mailroom clerk*	25	30000	1	50	50
Medical technician*	70	60000	3	50	50
Miner	30	3700	1	90	10
News analyst	60	50000	4	50	50
Nurse*	70	50000	3	25	75
Parking attendant	19	20000	1	65	35
Pharmacist	75	75000	5	50	50
Pediatrician	85	100000	5	50	50
Pilot	75	75000	3	80	20
Public relations specialist	60	50000	3	50	50
Psychologist	75	70000	5	50	50

Real estate agent	60	60000	3	50	50
Receptionist*	30	30000	1	20	80
Sales manager	50	50000	3	60	40
Small business owner	68	50000	3	60	40
Social worker	60	40000	4	40	60
Surgeon	95	100000	5	70	30

* These six occupations were selected for the study

Appendix C

Pilot study selection criteria for final six occupations

Occupation	Level of prestige	Estimated income	Level of education	% of men	% of women
Predominately female occupations					
Nurse	70	50000	3	25	75
Receptionist	30	30000	1	20	80
Gender balanced occupations					
Medical technician	70	60000	3	50	50
Mailroom clerk	25	30000	1	50	50
Predominately male occupations					
Firefighter	80	45000	2	85	15
Car salesperson	30	40000	1	75	25

Appendix E

YOU WILL BE ASKED TO READ THE BELOW VIGNETTE AND THEN RESPOND TO A SERIES OF QUESTIONS, SOME OF WHICH MAY REQUIRE YOU TO MAKE JUDGMENTS BASED ON THE LIMITED INFORMATION AVAILABLE TO YOU. WE ARE INTERESTED IN YOUR THOUGHTS ABOUT A PERSON'S WORK EXPERIENCE BASED ON INFORMATION ABOUT THE PERSON'S PERSONALITY. IF YOU ARE UNSURE OF HOW TO ANSWER, JUST GIVE YOUR BEST GUESS.

Nicole has worked as a nurse for the last three years. Nicole could be described as a person with a need for other people to like and admire her, and yet she tends to be critical of herself. While Nicole has some personality weaknesses she is generally able to compensate for them. Disciplined and self-controlled on the outside, she tends to be worrisome and insecure on the inside. She prefers a certain amount of change and variety and becomes dissatisfied when hemmed in by restrictions and limitations. She also prides herself as an independent thinker; and does not accept others' statements without satisfactory proof. At times she is extroverted, affable, and sociable, while at other times she is introverted, wary, and reserved. Some of Nicole's aspirations tend to be rather unrealistic. Recently, Nicole received a note from her supervisor asking her for a meeting.

1. To what extent do you find Nicole competent as a nurse? _____

1	2	3	4	5	6
Not competent	Barely Competent	Somewhat competent	Moderately competent	Very competent	Extremely Competent

2. To what extent do you feel confident in hiring Nicole as a nurse? _____

1	2	3	4	5	6
Not confident	Barely Confident	Somewhat confident	Moderately confident	Very confident	Extremely confident

3. What percentage of a raise does Nicole deserve?

1	2	3	4	5	6
0%	2%	4%	6%	8%	10%

4. To what extent do you like Nicole?

1	2	3	4	5	6
Not at all	Barely	Somewhat	Moderately	Very much	Extremely

5. How would you describe Nicole's work ethic?

Appendix F

Manipulation checks for final six occupations

Occupation	Level of prestige	Estimated income	Level of education	% of men	% of women
Predominately female occupations					
Nurse	62	46076	3	28	72
Receptionist	47	40916	2	26	74
Gender balanced occupations					
Medical technician	62	69754	3	50	50
Mailroom clerk	30	27005	2	58	42
Predominately male occupations					
Firefighter	77	43234	2	78	22
Car salesperson	45	67266	2	77	23

Appendix G

Intercorrelation matrix for overall impression items

	1.	2.	3.	4.	5.	6.
1. Competence	1.00					
2. Confidence in hiring	.68**	1.00				
3. Deserving of a raise	.36**	.42**	1.00			
4. Likeability	.38**	.40**	.30**	1.00		
5. Work Ethic	.54**	.56**	.40*	.46**	1.00	
6. Intelligence	.48**	.49**	.27**	.55**	.60**	1.00

Note. **Correlation is significant at $p < .01$ (2-tailed)

Appendix H

Generalized Least Squares Factor Analysis of overall impression items

Item	Factor	Extracted communalities
	1	
Competence	.75	.61
Confidence in hiring	.80	.69
Deserving of a raise	.49	.28
Likeability	.59	.44
Work Ethic	.77	.61
Intelligence	.72	.62
Extracted eigenvalue	3.35	
% variance	55.78%	

Appendix I

Personal Attributes Questionnaire

The items below inquire about what kind of person you think you are. Each item consists of a pair of characteristics, with the letters A-E in between. For example: Not at all Artistic
A.....B.....C.....D.....E Very Artistic

Each pair describes contradictory characteristics--that is, you cannot be both at the same time, such as very artistic and not at all artistic. The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on the scale. For example, if you think you have no artistic ability, you would choose A. If you think you are pretty good, you might choose D. If you are only medium, you might choose C, and so forth.

	A	B	C	D	E	
1. Not at all aggressive	<input type="radio"/>	Very aggressive				
2. Not at all Independent	<input type="radio"/>	Very independent				
3. Not at all emotional	<input type="radio"/>	Very emotional				
4. Very submissive	<input type="radio"/>	Very dominant				
5. Not at all excitable in a major crisis	<input type="radio"/>	Very excitable in a major crisis				
6. Very passive	<input type="radio"/>	Very active				
7. Not at all able to devote self completely to others	<input type="radio"/>	Able to devote self completely to others				
8. Very rough	<input type="radio"/>	Very gentle				
9. Not at all helpful to others	<input type="radio"/>	Very helpful to others				
10. Not at all competitive	<input type="radio"/>	Very competitive				
11. Very home oriented	<input type="radio"/>	Very worldly				
12. Not at all kind	<input type="radio"/>	Very kind				
13. Indifferent to others approval	<input type="radio"/>	Highly needful of others approval				
14. Feelings not easily hurt	<input type="radio"/>	Feelings easily hurt				
15. Not at all aware of feelings of others	<input type="radio"/>	Very aware of feelings of others				
16. Can make decisions easily	<input type="radio"/>	Has difficulty making decisions				
17. Gives up very easily	<input type="radio"/>	Never gives up easily				
18. Never cries	<input type="radio"/>	Cries very easily				
19. Not at all self-confident	<input type="radio"/>	Very self-confident				
20. Feels very inferior	<input type="radio"/>	Feels superior				
21. Not at all understanding of others	<input type="radio"/>	Very understanding of others				
22. Very cold in relations with	<input type="radio"/>	Very warm in relations with				

others

23. Very little time for security

24. Goes to pieces under
pressure

Helmreich, & Stapp, (1974)

others

Very strong need for
security

Stands up well under
pressure

Appendix J

Table J1

Hierarchical Multiple Regression Analyses of Overall Impression on the Gender of the Target Employee (GenVig), Masculinity Score (PAQM), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQM (z score)	0.26	0.05	0.16, 0.36	0.32	
GenVig	-0.01	0.05	-0.11, 0.09	-0.01	0.000
Step 2					
PAQM x GenVig	0.06	0.05	-0.07, 0.16	0.07	0.005

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table J2

Hierarchical Multiple Regression Analyses of Overall Impression on the Gender of the Target Employee (GenVig), Femininity Score (PAQF), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQF (z score)	0.26	0.05	0.16, 0.36	0.33	
GenVig	-0.05	0.05	-0.15, 0.05	-0.06	0.004
Step 2					
PAQF x GenVig	0.01	0.05	-0.10, 0.11	0.01	0.000

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table J3

Hierarchical Multiple Regression Analyses of Overall Impression on the level of occupational prestige (Prestige), Masculinity Score (PAQM), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQM (z score)	0.26	0.05	0.15, 0.36	0.32	
Prestige	-0.02	0.05	-0.12, 0.08	-0.03	0.001
Step 2					
PAQM x Prestige	-0.05	0.05	-0.15, 0.05	-0.06	0.004

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table J4

Hierarchical Multiple Regression Analyses of Overall Impression on the level of occupational prestige (Prestige), Femininity Score (PAQF), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQF (z score)	0.25	0.05	0.15, 0.35	0.32	
Prestige	-0.06	0.05	-0.16, 0.04	-0.07	0.005
Step 2					
PAQF x Prestige	0.04	0.05	-0.06, 0.14	0.05	0.002

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table J5

Hierarchical Multiple Regression Analyses of Overall Impression on the Gender Concentration of Occupation (GenConcen), Masculinity Score (PAQM), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQM (z score)	0.26	0.05	0.16, 0.36	0.33	
GenConcen	0.04	0.06	-0.08, 0.16	0.04	0.002
Step 2					
PAQM x GenConcen	0.05	0.06	-0.07, 0.168	0.06	0.003

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table J6

Hierarchical Multiple Regression Analyses of Overall Impression on the Gender Concentration of Occupation (GenConcen), Femininity Score (PAQF), and Their Interaction

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
PAQF (z score)	0.26	0.05	0.16, 0.36	0.32	
GenConcen	-0.04	0.06	-0.17, 0.08	-0.05	0.002
Step 2					
PAQF x GenConcen	-0.10	0.06	-0.22, 0.01	-0.11	0.012

Note. CI = Confidence Interval. * $p < .05$. ** $p < .01$. *** $p < .001$.