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"The aura of capability": Gender bias in selection for a project manager job

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Abstract

There have been numerous studies examining the various manners in which female managers are subjected to negative stereotypes and bias, and how such bias influences hiring decisions. We sought to study the job selection challenge within the specific context of project management, a discipline that has historically been viewed as male-dominated, focusing on perceived differences in male and female job candidates based on a set of critical personal/managerial characteristics, including perceived competence, trust, likeability, and lack of perceived self-interest. We developed a scenario-based survey questionnaire and a between-subjects research design, sampled 312 project management personnel and tested subjects' reactions to two candidates for a project management position, employing identical descriptions and language while only changing the candidate's name: Susan or Stan. Our results suggested that all independent variables are significant predictors of the likelihood of a project manager candidate being hired. We only found evidence of gender bias in relation to perceived technical competence; in situations where the perceived technical competence of the job candidate was low, the female candidate was less likely to be hired over a male counterpart. On the other hand, as a candidate's perceived technical competence increased, the resulting attributions were significantly more beneficial for the female job seeker, who was more likely to be hired over a male candidate.

1. Introduction

Literature on the professional roles of women and challenges they face in being hired has increased dramatically in recent years. Census data reveals that over 50% of new college graduates in the U.S. are female while research suggests that their employment levels in managerial positions within a broad variety of industries and functional occupations has been rapidly increasing (Aud et al., 2011). Moreover, industries that were traditionally viewed as "male-dominated," such as information technology, engineering, operations, and construction, have seen a rise in the number of women moving into managerial positions (c.f., Sang et al., 2007; Loosemore and Waters, 2004). This demographic shift has not made the assimilation of women into managerial roles easier, however, as numerous studies of gender inequity, alternative leadership styles, challenges in career paths, and stereotypes of successful women managers point to a lack of consensus about the acceptance of professional women managers in the workplace (Bienat and Fuegen, 2001; Piderit and Ashford, 2003). Indeed, the challenges faced by women to succeed represent a phenomenon that is far from settled; questions about the skills sets and personal characteristics needed for job selection and hiring, particularly in male-dominated professions, remain a critical focus for study.

Scholars have labeled as "social category bias effect," a woman's inability to be perceived as equally qualified as male candidates, particularly in male-dominated professions such as engineering or technical fields. Marlowe et al. (1996) identified systematic gender biases, including those based on physical attractiveness, in manager selection, suggesting that women are

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often penalized based on irrelevant criteria (e.g., weight, physical appearance) relative to male candidates applying for the same position. Interestingly, a study by Bosak and Sczesny (2011) found evidence of halo effects in perceptions of qualification; that is, when female applicants are initially characterized as "leaders" in pre-selection data, they are hired as frequently as males with the same credentials. On the other hand, in the absence of any qualifying information, male applicants tend to be preferred by male screeners. Research by Derous et al. (2015) demonstrated the complexity of the screening and selection process when candidates belong to multiple categories (e.g., gender and ethnic background). They found evidence that screeners' response to candidates and their membership in multiple categories depended on both the job type and their prejudice. It is clear that a comprehensive literature suggests that manager screening and selection remains heavily influenced by stereotyping and category bias effects.

One discipline that has witnessed significant changes in perspectives on equal gender accessibility and competence is project management. As project-based work has become an operating norm in more and more organizations, the number of practitioners building careers around project management has increased proportionally (Crawford, 2005). Historically, project management mirrored gender-based managerial role development across multiple industries as it focused primarily on "traditional" settings such as construction, mining, or heavy manufacturing. As these technical industries tended to be heavily dominated by male managers, gender identification assumptions presumed that "masculine" traits were critical to professional success (Gale and Cartwright, 1995; Lindgren and Packendorff, 2006; Henderson and Stackman, 2010; Thomas and Buckle-Henning, 2007). Thus, it became something of an article of faith that managerial success in technical settings required a skill set or behavioral approach that was inimical to female managers' practices (Garcia-Retamero and López-Zafra, 2006). With the rapid increase in the use of project management techniques across multiple, non-traditional settings and industries (e.g., financial and legal services, education, and healthcare), there are increasing numbers of human resources working in project management functions. Thus, it is useful to reflect on the question of the degree to which hiring biases and gender stereotyping continue to exist in the project management field.

In a previous study, using the same data set, we addressed varying perceptions of a job candidate's trustworthiness and likeability, depending upon the gender of the applicant and the reviewer (Pinto et al., 2015). Our findings suggested that, contrary to some past research, female candidates for a project manager position actually were rated more positively (more trustworthy and likeable) than their male counterparts. Further, there was no cross-gender bias in these ratings (female evaluators were not significantly different in their ratings of applicants from male evaluators). Although interesting, this analysis did not explicitly link the evaluations of female and male candidates to the actual hiring decision itself; we only investigated perceptions. This present paper uses "likelihood of hiring" as a dependent variable in the analysis, while also broadening our list of potential

independent (predictor) variables to develop more comprehensive picture of the ways in which gender bias can influence the project manager hiring process.

The purpose of this paper is to report on the results of a study that assessed attitudes toward male versus female candidates applying for a project manager position. We sampled project professionals in several organizations, using a scenario-based assessment, to determine their reactions to a male and female candidate applying for a project manager position. The hiring scenario is particularly relevant and prone to gender bias for a number of reasons, including: 1) the limited information on which hiring decisions are made can increase the likelihood of stereotyping or the use of negative a priori assumptions about female candidates; 2) time pressures under which managers operate tend to stigmatize vulnerable groups or sub-populations; and 3) external pressure from antidiscrimination laws is less likely to correct bias in hiring because affected parties are not privy to the decision process and lack recourse (Bendick and Nunes, 2012). We wished to determine the degree to which perceptions of gender roles in technical positions have changed during a time of increasing female entry into traditionally male-dominated disciplines like project management. The rapidly growing female managerial class gives rise to some important questions. First, what are some of the important traits looked for in attractive project manager job candidates? Second, how does the candidate's gender moderate the relationship between these various personality variables and the likelihood that the candidate will be hired?

2. Literature review and hypotheses

2.1. Perceived competence

Perceived competence is strongly linked to the decision to hire new employees (c.f., Heilman et al., 1992) and is also a critical component of top managements' assessments of qualification for technical positions, such as project management roles (Crawford, 2005). Competence has been defined as relating to an individual's intelligence, power, efficacy, and skill (Cuddy et al., 2011). Social category bias theory has long suggested that consideration of gender is an issue in decisions related to perceived competence and hence, hiring (Heilman et al., 1995). Social category bias posits the existence of strong prejudices on the basis of an actor's membership in various social classes, including gender, ethnicity, and national culture (Derous et al., 2015; Schein, 2001). Thus, female applicants for a position that is traditionally described using adjectives like "analytical," "fast-paced," or "technical" will be at a disadvantage due to their membership in a social category that is viewed as inimical to "male-typed" jobs (Heilman and Okimoto, 2007). This is particularly the case in the project management field, where past research has identified effective competent project managers as possessing a combination of both technical skills and administrative/interpersonal skills (Hadad et al., 2013; Müller and Turner, 2010). That is, effective project managers have been shown to possess not only technical abilities (necessary for contributing to the technical demands of the project), but also critical