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# **ESSAYS ON GENDER DIFFERENCES IN SPONSORSHIP AND HIRING DECISIONS**

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## INTRODUCTION AND OVERVIEW OF DISSERTATION

Despite considerable progress toward equality in society, gender differences persist in career trajectories. Women ascend organizational hierarchies at slower rates and remain underrepresented in top-tier leadership positions and elite occupations, compared to men (e.g., Catalyst, 2020; Fernandez-Mateo & King, 2011; Petersen & Morgan, 1995). In effort to understand how gender inequity in career advancement is created and reproduced, this dissertation examines evaluations and decision-making processes in hiring and sponsorship. Sponsorship is a form of career support in which high-status and influential senior colleagues (i.e., sponsors) leverage their social capital to secure career opportunities that facilitate the upward mobility of junior employees. Examples include job referrals, recommendations, advocacy for promotions, and informal support like strategic introductions or discussing junior employees' achievements to other influential members of the firm (Ibarra et al., 2010). These processes are tested using quantitative and qualitative methodologies across three independent research papers.

Chapter 1, titled "He's Overqualified, She's Highly Committed: Qualification Signals and Gendered Assumptions about Job Candidate Commitment," studies how gender influences the way overqualification is perceived and responded to in the labor market (joint work with Oliver Hahl). Findings from four experiments and qualitative evidence of hiring managers' evaluations of job candidates show gendered assumptions about candidates' commitment are made based on candidates' (over)qualifications, which influences hiring decisions. Overqualified male candidates are perceived to be less committed to the prospective firm at which they have applied to work, and less likely to receive job offers as a result, compared to male candidates with fewer but sufficient qualifications for the open position. In contrast, overqualified female candidates are perceived to be more committed to their careers and to the prospective firm, both of which boost their likelihood of receiving a job offer compared to sufficiently qualified female candidates and overqualified male candidates. Additional experimental and qualitative evidence reveal hiring managers rationalize women's overqualification with assumptions about women's prior experiences with discrimination and gender stereotypes about communality, which explains women's ability to evade

the negative effects of overqualification. These findings have important implications for understanding how gender operates as a filter through which signals are interpreted.

Chapter 2, titled “From Exception to Exceptional: How Gender and Tenure Impact Sponsor Effectiveness,” builds on the first chapter by studying how evaluations of sponsors influence how likely their recommendations for job candidates are to result in those candidates being hired (joint work with Rosalind Chow and Brandy Aven). Experimental data and field data on U.S. Supreme Court clerkship hiring decisions provides evidence for how sponsors’ tenure differentially impacts the effectiveness of male and female sponsors’ recommendations. Combined evidence across two studies shows that male sponsors are more likely to secure job opportunities for candidates through their recommendations compared to female sponsors, overall. However, the tenure of the sponsor changes this effect: high levels of tenure in their field uniquely boosts perceptions of female sponsors’ credibility and, in turn, the effectiveness of their recommendations. Explanations for why increased tenure confers credibility to female sponsors are discussed, including the possibility that the audience assumes highly tenured female sponsors have faced and overcome gender-discriminatory barriers to become highly tenured in their careers and, as such, their longevity speaks to their exceptional quality in way that it cannot for male sponsors.

Chapter 3, titled “An Investment Opportunity or Your Duty? Gender and Mental Models for Sponsorship Decisions,” expands upon the second chapter by diving deeper into the psychological processes that inform men’s and women’s decisions to provide sponsorship. Drawing from an inductive qualitative analysis of high-ranking equity partners at a multinational professional services firm, I introduce a conceptual framework of mental models for how male and female leaders decide if and for whom to mobilize their social capital when providing sponsorship. This framework includes two mental models that highlight differences in men’s and women’s decision making: 1) men are associated with an investment-oriented mental model that frames social capital as a resource that can be invested in high-potential junior employees to generate returns for sponsors in the future, and 2) women are associated with a duty-oriented mental model that frames social capital as a resource that leaders have the responsibility to spend to help deserving junior employees succeed. These findings contribute to prior work on mental models for strategic

choices in organizations by showing that mental models also influence decisions about social capital mobilization. The implications of these findings for understanding the microfoundations of gender disparities in the reproduction of social capital are also discussed.



**CHAPTER 1. He's Overqualified, She's Highly Committed: Qualification Signals and Gendered Assumptions about Job Candidate Commitment<sup>1</sup>**

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<sup>1</sup> Research included in this chapter was conducted in collaboration with Oliver Hahl. Contact corresponding author: Elizabeth Campbell, 4765 Forbes Ave., Pittsburgh, PA 15213. Email: [ecampbell@cmu.edu](mailto:ecampbell@cmu.edu).

### **Abstract**

While some evidence suggests that overqualification can lead to poor hiring outcomes, there is reason to anticipate that this penalty applies to male but not female job candidates. Key to this is the different and gendered assumptions that hiring managers make about candidates' commitment, based on their qualifications. We argue that overqualification can be beneficial for women (but not men) because it helps overcome gender biases about their lower levels of career commitment and does not elicit the same concerns typically generated about overqualified candidates' lower levels of commitment to the prospective firm. We combine four experiments with supplemental qualitative evidence to test this theory. Results showed that overqualified men were perceived to be less committed to the prospective firm and less likely to receive job offers as a result, compared to sufficiently qualified men. But women did not experience this penalty. Overqualified women were also perceived to be more committed to their careers and more likely to receive job offers than sufficiently qualified women. Qualitative and additional experimental evidence suggested that assumptions about women's prior experiences with discrimination and gender stereotypes about communality help explain why female candidates evade an overqualification penalty on perceptions of their firm commitment, specifically. These findings imply that female candidates must demonstrate their commitment along two dimensions (firm and career commitment), whereas male candidates need only demonstrate their commitment along one dimension (firm commitment).

Prior work on labor markets and hiring has established that hiring managers tend to reject job candidates that are perceived to be overqualified for a job (Bills, 1992; Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012). The underlying logic is that candidates with sufficient qualifications to perform the job are preferred to overqualified candidates (i.e., those with more than sufficient qualifications) because possessing additional qualifications signals high demand for, and the potential mobility of, those candidates. Put differently, overqualification elicits concerns about a job candidate's commitment to the focal firm over the long term (Galperin et al., 2020). These findings underscore that, above and beyond signals of the candidate's capability, qualifications also impact inferences about candidates' potential commitment. However, the signals and factors that influence pre-hire perceptions of commitment are discussed differently in the literature for male versus female job candidates (Correll et al., 2007; Leung, 2014; Merluzzi & Phillips, 2016; Rivera & Tilcsik, 2016). Pre-hire perceptions of women's commitment tend to focus on commitment to their career and perceptions of men tend to focus on commitment to the prospective firm (Correll et al., 2007; Galperin et al., 2020; Rivera & Tilcsik, 2016). This divergence introduces the possibility that (over)qualification can communicate different things to hiring managers about candidates' commitment levels based on the gender of the candidate. More specifically, it raises the following question: can overqualification serve as a positive signal about female candidates' commitment but a negative signal about male candidates' commitment?

A key point we seek to reinforce in this paper is that perceived commitment to the prospective firm is not the only type of commitment that influences hiring decisions. Female job candidates face unique barriers regarding perceptions of their commitment to their career, or their willingness to prioritize career above family (Bielby & Bielby, 1984; Bielby & Bielby, 1992; Correll et al., 2007; Ridgeway & Correll, 2004). These negative assumptions about women's career commitment lead to discrimination in hiring decisions (Correll et al., 2007; Rivera & Tilcsik, 2016). While overqualification does spark concerns about candidates' commitment to the prospective firm (Galperin et al., 2020), possessing additional qualifications also signals candidates' high level of investment in their career and, as a result, may reduce hiring managers' uncertainty about women's career commitment. By comparison, men's career commitment is frequently

taken for granted; men are assumed to be highly committed to their careers (D. D. Bielby & Bielby, 1984; W. T. Bielby & Bielby, 1992; Coltrane, 2004; Hakim, 2018; Townsend, 2002). With little uncertainty about men's career commitment, overqualification may boost women's perceived career commitment but have no impact on men's perceived career commitment.

Gender stereotypes can influence perceptions of firm commitment as well, particularly as signaled by overqualification. Prior work on overqualification and pre-hire perceptions of commitment has focused predominately on perceived firm commitment, or whether candidates are perceived as likely to be committed to the prospective firm in which they have applied to work over the long term (Galperin et al., 2020; cf., Leung, 2014; Merluzzi & Phillips, 2016). Overqualified candidates are assumed to have many possible alternatives and be ready to "job hop" when a better opportunity comes along, making firms less inclined to hire them (Bills, 1992; Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012; Tan & Rider, 2017). A critical yet overlooked aspect of this prior literature is that the signals communicated by overqualification are not sent in a vacuum but interpreted within the context of other salient contextual cues, such as the job candidate's gender. We theorize that gender stereotypes will color how male versus female candidates' overqualification is interpreted in the labor market. While gender stereotypes about men's "agentic-ness" are consistent with assumptions already made about overqualified candidates, stereotypes about women's increased communality are in opposition. Coupled with gendered assumptions about why men versus women would be looking to change firms, this introduces the possibility that overqualification will not negatively impact perceptions of female candidates' commitment to the prospective firm in the same way it will for male candidates.

Of course, many factors influence perceptions of job candidates' capability, commitment, and labor market outcomes. To control for these various factors and isolate the effects of overqualification, we test our arguments using a mixed-methods approach that combines four experiments with supplemental qualitative analysis. Study 1 serves as an initial test of our theory: experimental evidence shows that overqualification negatively impacts male candidates' probability of receiving a job offer, but no such penalty exists for female candidates. Study 2 shows that perceptions of candidates' firm and career

commitment explain gender differences in how overqualification impacts hiring outcomes. Supplemental qualitative evidence of hiring managers' rationale for their evaluations of job candidates underscores that different assumptions are made about male and female candidates' commitment levels based on their qualifications. Studies 3 and 4 build on the experimental and qualitative evidence to test how gendered assumptions about men's and women's prior firm experiences (Study 3) and perceived communality (Study 4) underlie women's ability to evade an overqualification penalty on perceptions of their firm commitment, specifically. We recruited participants with prior experience evaluating and hiring job candidates for all of our experiments because an important assumption in our theory is that hiring managers are experienced in identifying signals and contextual cues sent by job candidates. In the following sections, we draw on prior work concerning stereotypes about men and women in the labor market to lay out the logic for why overqualification has different implications for men's and women's perceived career commitment, perceived firm commitment, and hiring outcomes.

This paper makes several contributions. First, we better explicate the phenomenon of overqualification, which remains understudied and not well understood despite its becoming more commonplace in the context of challenging economic and labor market conditions (Erdogan & Bauer, 2021; Indiviglio, 2010; Rose, 2017). Second, we facilitate a better understanding of firm hiring practices by elucidating the relationship between candidates' (over)qualifications and inferences made about their commitment during hiring decisions. Prior work has validated the link between pre-hire perceptions of commitment and hiring decisions (Galperin et al., 2020; Leung, 2014; Merluzzi & Phillips, 2016; Rivera & Tilcsik, 2016). This paper demonstrates that overqualification, one of the various signals that inform pre-hire perceptions of commitment, operates differently depending on the gender of the job candidate. Specifically, we provide evidence that gender acts like a filter through which overqualification is interpreted, which leads to countervailing effects for male and female job candidates. In doing so, this paper speaks to the established literature showing that women must do more than men to overcome gendered double standards about their competence and skills in the workplace (Biernat & Fuegen, 2001; Foschi, 1996; Heilman, 2012; Ridgeway, 2011). We extend this line of inquiry by showing that possessing far more

qualifications than is necessary (i.e., being overqualified) can improve women's labor market outcomes because it boosts perceptions of their career commitment.<sup>2</sup>

Finally, our paper addresses the division in how prior work has talked about pre-hire perceptions of commitment: male candidates are more often discussed in terms of perceived firm commitment, but female candidates are more often discussed in terms of perceived career commitment (e.g., compare Correll et al., 2007; to Galperin et al., 2020). This divergence has led to an incomplete understanding of how these two types of commitment operate in tandem to lead to gender differences in hiring outcomes. We address this issue by showing that male candidates are evaluated primarily on one type of commitment (firm commitment), but female candidates must demonstrate their commitment to both the prospective firm and their career. This represents a unique challenge for women in the labor market. Taken together, these findings have important implications for understanding the microfoundations of persistent gender differences in hiring outcomes (Correll et al., 2007; Rivera & Tilcsik, 2016; see also Weisshaar, 2018).

### **(Over)Qualifications and Inferences about Commitment in Hiring**

Research in Organization Theory and on labor markets has long held that hiring managers assess job candidates' quality by making inferences about candidates' capability and commitment, or candidates' perceived willingness to apply their capabilities to benefit the firm over the long term (e.g., H. Becker, 1960). Candidates' actual commitment levels are frequently unknown to the hiring manager, leading them to make inferences from contextual cues and signals such as job history, social class, and gender (Correll et al., 2007; England et al., 2016; Leung, 2014; Rivera & Tilcsik, 2016). Research on labor markets runs alongside this work and emphasizes that qualifications are the primary signal of capability (e.g., Bidwell et al., 2015; Feltovich et al., 2002; Spence, 1974). These two literatures were recently integrated to show that qualification signals are used to make inferences about candidates' capability and commitment, both. This new stream of research finds that firms shy away from hiring highly qualified candidates if they are

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<sup>2</sup> We would be remiss if we did not acknowledge that the implication that women must not only do more, but be overqualified, in order to be as successful as qualified men suggests that this may be one additional way gender inequality in careers is reproduced. This is also an important contribution; we speak more about it in the general discussion.

perceived to be *overqualified* for the prospective position (Bills, 1992; Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012).

The notion that overqualification can negatively impact hiring outcomes is critical for two reasons. First, overqualification is becoming more common as candidates become more educated and credentialed in the context of highly competitive labor market conditions (Indiviglio, 2010; Rose, 2017). Second, and key for our paper, existing theory explaining the rejection of overqualified candidates is built on a foundation of assumptions that are frequently made about men but not women. Indeed, there is evidence suggesting that women may be less likely to be rejected for being overqualified than men. Prior research on the “trailing spouse” problem has found that women may be limited in finding work that matches their qualifications when they move to a new city to prioritize their husband’s career (e.g., W. T. Bielby & Bielby, 1992; Frank, 1978; McGoldrick & Robst, 1996). This predicament leads women to accept (and be accepted to) jobs for which they are overqualified. Consistent with this story, Quadlin (2018) found in posthoc analyses of early career hiring decisions that male candidates were penalized when they applied for jobs for which they were overqualified, but female candidates were not penalized.<sup>3</sup> To understand why women are not rejected for being overqualified but men are, it is important to consider how (over)qualifications impact perceptions of male and female candidates’ firm and career commitment differently and which type of commitment is most salient, stereotypically so, to hiring managers during evaluations (career commitment for women, firm commitment for men).<sup>4</sup>

### **Overqualification and Pre-hire Inferences about Career Commitment**

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<sup>3</sup> A key difference in the work cited here and our focus is that the prior work has focused on overeducation instead of overqualification. Overqualification is distinct in that it captures all skills and qualifications, not just one’s educational background. Furthermore, job experience can resolve some of the open questions left unclear by education, such as the job candidate’s ability to work on a team and function inside of the organization. Relatedly, Quadlin’s (2018) work focused on early career hiring decisions (i.e., right out of school) while we are focused on implications for mid-career job candidates.

<sup>4</sup> There is a long literature on *post-hire* organizational or firm commitment and employee performance (H. Becker, 1960; Kanter, 1968; Mercurio, 2015; Meyer & Allen, 1991; Mowday et al., 1982; Solinger et al., 2013). We are focusing on factors that influence *pre-hire* perceptions of firm and career commitment. To the extent that post-hire firm commitment matters for performance, discerning it prior to hire is critical for hiring decisions. Although the ideal level of commitment to the organization might be an item of discussion, the key point here is that hiring managers prefer job candidates who are committed over those who are not. We are also focused on actual overqualification, rather than the effects of self-perceived overqualification (G. J. Johnson & Johnson, 2000; W. R. Johnson & Johnson, 2002).

Job candidates' perceived career commitment has important implications for whether they are selected in hiring decisions. Career commitment is understood to be the amount that individuals identify with and desire to persist in their career or chosen vocation (Carson & Bedeian, 1994). Career commitment is distinct from commitment to the firm because it goes beyond commitment to applying one's capabilities to benefit a single firm but speaks to a higher-level commitment to remaining in one's career. In the cases of perceived firm commitment and perceived career commitment, the central question on hiring managers' minds is: will this job candidate remain committed while working at the prospective firm? While candidates' perceived commitment to the prospective firm is central to answering this question, candidates' perceived commitment to their career is also highly relevant to how (and whether) candidates would perform in any given firm.

There is reason to anticipate that career commitment concerns will be uniquely central to assessments of female candidates but will be less relevant to evaluations of male candidates (despite equivalent qualification levels). The key to this idea is the influence of gender roles and stereotypes on perceptions of who "belongs" in the workplace and the so-called "ideal worker" (Dumas & Sanchez-Burks, 2015; Epstein et al., 1999; Reid, 2015; J. Williams, 2000). Widely accepted beliefs about men's increased competence and social worth (Ridgeway, 2001, 2011; Ridgeway & Correll, 2004b) combined with the consistency of the masculine gender role with characteristics associated with leaders create a "think manager, think male" effect (Heilman, 2012; Schein, 1973, 1975, 2001). Men are naturally associated with the characteristics of the ideal employee; this leaves little reason to anticipate that men, simply based on their gender, will not be committed to their careers (Coltrane, 2004; Hakim, 2018; see also Townsend, 2002). The same cannot be said for women, however. Evidence of this lies in The Motherhood Penalty, an effect showing that mothers are perceived to be less committed to work outside of the home and, as a result, are less likely to be invited back for job interviews (Correll et al., 2007; see also England et al., 2016).<sup>5</sup>

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<sup>5</sup> Evidence shows that men frequently benefit from their parental status, an effect that has been termed The Fatherhood Premium (Hodges & Budig, 2010; Killewald, 2012; Lundberg & Rose, 2002; Townsend, 2002). In contrast, motherhood has been associated with wage penalties (Budig & England, 2001; Waldfogel, 1997). While it is less common, men can be penalized for their parental status if they clearly signal that they are the primary caregiver for their children (Weisshaar, 2018), which is a traditionally feminine



Individuals hold lower expectations for women to function as the “ideal worker,” who is expected to place work above all else (Epstein et al., 1999; J. Williams, 2000), because gender stereotypes suggest that women’s role as a mother conflicts with the needs of the firm and their career (Bielby & Bielby, 1988; Correll et al., 2007; Hoobler et al., 2010; Ridgeway & Correll, 2004; Rivera & Tilcsik, 2016).<sup>6</sup> Importantly, these concerns may or may not accurately reflect women’s actual priorities or tendencies, but they are assumptions that hiring managers make about women’s career commitment levels.

Consistent with this point, Rivera and Tilcsik (2016) observed that, despite inferring that female candidates had sufficient ability for a job, managers in law firms were less likely to advance them in the hiring process due to concerns about their future commitment to remaining in the workforce. This was true even though these candidates lacked clear signals of their current parental or marital status (Rivera & Tilcsik, 2016). These career commitment concerns are not about commitment to the particular firm but are about the candidate’s commitment to her career more generally (i.e., probability of the female candidate leaving any firm and the workforce to prioritize family responsibilities). To this point, Weisshaar (2018) observed that mothers who remained in the labor force experienced relatively better hiring outcomes than women who temporarily opted out to care for their families. The implication is that mothers who keep working after having children demonstrate relatively more commitment to their careers than those who opt-out, even if that opt-out is temporary. In either case, this evidence suggests that negative assumptions are made about women’s career commitment even in the absence of clear signals about their parental status (Rivera & Tilcsik, 2016). These findings underscore the notion that uncertainty about women’s career

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role. This penalty likely reflects the penalties that men experience when they engage in behavior that runs counter to masculine gender norms (Coltrane et al., 2013; Moss-Racusin et al., 2010; Rudman & Mescher, 2013). However, in absence of clear signals about their primary caregiver status, men are not typically penalized for their parental status in the same way that women are.

<sup>6</sup> Some may argue that female candidates’ age will determine whether The Motherhood Penalty will apply. There is less evidence to support this assertion. Women are starting families later in life compared to prior generations, particularly highly educated women (Gustafsson 2005, Livingston 2015, Mills et al. 2011). This means there is a wide age range in which women could have children and start families, making it difficult to argue for an age at which women would be presumed to no longer have family commitments (i.e., at what point are women considered not likely to become mothers?) The Motherhood Penalty also does not hinge exclusively on childbearing but is about parental status more generally (Correll et al., 2007; Ridgeway & Correll, 2004b). This penalty reflects the broader sentiment that women are assumed to have competing priorities between caring for their family and their career. Short of a clear age when mothers would be presumed to no longer have the responsibilities of motherhood, this is also a difficult argument to make. In fact, evidence finds that gender stereotypes are robust and do not vary based on the age of the woman being evaluated (DeArmond et al. 2006, Kite et al. 1991).

commitment reflects concerns about both their willingness to remain in the labor force and their tendency to prioritize family above career while they are working (see Coltrane, 2004 for relevant commentary).

The stereotypes that inform assumptions about women's career commitment are influential in hiring decisions. Recall that a job candidate's true level of commitment is unknown, creating uncertainty in the mind of the hiring manager. Hiring managers must rely on contextual cues and signals to infer the candidate's commitment level before hire and resolve this uncertainty. This process allows for gendered assumptions to influence hiring decisions because, as prior work shows, individuals fall back on stereotypes and biases to "fill in the gaps" when making decisions in the context of ambiguous information or uncertainty (e.g., Hodson et al., 2002). The Motherhood Penalty suggests that, in the absence of full information about a female job candidate's true career commitment level, hiring managers will fall back on gender stereotypes, leading them to assume that female candidates are generally less committed to their careers than male candidates (Coltrane, 2004; Correll et al., 2007; Ridgeway & Correll, 2004; Rivera & Tilcsik, 2016; Townsend, 2002). With these challenges facing women on the labor market, overqualification should serve as a signal that reduces uncertainty about women's career commitment, because acquiring additional achievements and experience is costly and signals a high level of investment in one's career.<sup>7</sup> Overqualification provides hiring managers with more information about female candidates' career commitment levels and reduces their need to rely on gender stereotypes about women's reduced career commitment to make hiring decisions. Stated more plainly, we predict that overqualified female candidates will be perceived as more committed to their careers than female candidates with sufficient qualifications for the job; overqualification should "turn off" gender biased assumptions about women's reduced commitment to their careers.

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<sup>7</sup> See Benard and Correll (2010) for evidence that mothers who provide unambiguous evidence of high job performance are no longer perceived to be less competent and committed to their work compared to non-mothers. This supports our theorizing about how overqualification may boost perceptions of career commitment. However, one weakness of this prior paper is that commitment was measured as a single item asking participants to rate perceived "work commitment," making it difficult to determine whether participants were rating these mothers on perceived career or firm commitment. This paper also examined mothers (i.e., female job candidates with signals of their parental status), whereas we are concerned with female job candidates more generally.

In contrast, we do not anticipate that additional qualifications will impact pre-hire perceptions of male candidates' career commitment. Prior research shows that men are presumed to be highly committed to their careers (Bielby & Bielby, 1984; Bielby & Bielby, 1992; Correll et al., 2007; see also Townsend, 2002). This means that the biases hiring managers would fall back on when making inferences about male candidates' true career commitment levels would be stereotypes about men's status as primary breadwinners of the family and as individuals who are career-driven (Bear & Glick, 2017; Coltrane, 2004; Hodges & Budig, 2010; Killewald, 2012; Townsend, 2002). Therefore, any additional signals about career investment would be consistent with the general assumption that men are highly committed to their careers. We do not anticipate that signals consistent with the existing assumption about men's high career commitment levels will change hiring managers' inferences about men's career commitment levels (see Merluzzi & Phillips, 2016 for relevant findings that speak to this point in a different context).<sup>8</sup> This logic leads us to predict that the job candidate's gender and qualification level will interact to impact perceptions of the candidate's career commitment.

*Hypothesis 1. The job candidate's gender and qualification level will interact to impact the job candidate's perceived career commitment, such that overqualified female candidates will be perceived as more committed to their careers compared to sufficiently qualified female candidates, but there will be no such difference among male candidates.*

### **Overqualification and Pre-Hire Inferences of Firm Commitment**

The core of the above argument is that overqualification impacts perceptions of male and female candidates' career commitment differently because it helps overcome biased assumptions that are made about women's lower levels of career commitment. But career commitment is only one of two dimensions

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<sup>8</sup> Our logic is consistent with Merluzzi and Phillips' (2016) argument for a "specialist discount" in the labor market when there is a strong institutionalized screening mechanism available to evaluators. In their argument, signals of candidates' specialization are advantageous only if there is no other available information about the candidates' capability in a given skill category. But if evaluators already believe that candidates possess the relevant skills and qualifications because they have passed through an institutionalized filter that screens on the desired skill, then any additional information that is consistent with that opinion does not provide any benefits. Put differently, once candidates are deemed to be skilled in a given category, providing additional information about their skills in that same category will not increase their chances of being selected, because it communicates redundant information. This logic can also be applied to gender stereotypes about career commitment. If male candidates are already assumed to be highly committed to their careers, due to gender stereotypes, then possessing additional signals that communicate their high career commitment levels (i.e., via overqualification) are not advantageous, because such signals communicate redundant information.

of commitment relevant to hiring decisions. Perceived commitment to the job candidate's prospective firm is also critical (Galperin et al., 2020; Leung, 2014; Merluzzi & Phillips, 2016). As previously mentioned, a new but growing stream of research shows that being overqualified can lead to lower levels of perceived firm commitment and poorer hiring outcomes (Bills, 1992; Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012; Tan & Rider, 2017). A key mechanism behind this "overqualification penalty" is that higher qualifications communicate more than just the candidate's high capability. Additional qualifications also suggest that candidates have many alternative options, both currently and in the future (e.g., Bidwell et al., 2015; Galperin et al., 2020; Tan & Rider, 2017); possessing more (perceived) alternatives for work signals the candidate's increased labor market mobility. Taken together, because overqualified candidates are perceived to be in high demand from other firms that might give them better positions, they are assumed to be at greater risk of leaving or getting poached compared to candidates with fewer but sufficient qualifications (Galperin et al., 2020). However, a more in-depth inspection of the theoretical foundations of this overqualification penalty introduces a compelling reason to anticipate that it may apply only to male candidates, but not female candidates.

A fundamental premise in the above framework is the assumption that overqualified candidates are actively looking for opportunities to change jobs and "trade up."<sup>9</sup> The assumption that an individual is always looking for and ready to secure the next best career opportunity overlaps theoretically with attributes assigned to highly agentic individuals (Abele, 2003; Fiske & Stevens, 1993; Rudman et al., 2012). To the extent that overqualified candidates are perceived to be high achievers and highly competent individuals compared to candidates with fewer but sufficient qualifications, prior work on competence and achievement

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<sup>9</sup> In support of these assumptions, evidence suggest that employees who perceive themselves to be overqualified for their current position feel less committed to their current firm and are more likely to turnover (Harari et al., 2017; Johnson & Johnson, 2000). This evidence suggests that hiring managers' concerns about overqualified candidates' flight risk would not be meritless. But we also acknowledge that this is not always the case. It can be costly to always be moving to the next higher paying job, because it requires replacing colleagues, networks, and firm-specific knowledge. But again, these intentions and how the candidate actually feels about his/her qualifications and job are in the candidate's "backstage" (i.e., known to the candidate but not to the audience evaluating the candidate) (Goffman, 1959). We are less concerned with the job candidate's *actual* intentions and instead focus on what the hiring manager *assumes and infers* about the candidate's intentions.

would predict that overqualified candidates will be seen as more agentic, instrumental, and self-interested (e.g., Fiske et al., 2002; Hahl & Zuckerman, 2014).

The assumption that overqualified candidates are highly agentic can explain gender differences in perceptions of overqualified candidates' firm commitment because agency is considered stereotypically a masculine descriptor. Agency is the connecting thread that unites stereotypical assumptions about men's traits, characteristics, and behaviors: achievement-oriented (i.e., competitive, capable, task-oriented), inclined to lead (i.e., assertive, dominant), and autonomous (i.e., self-reliant, independent) (Abele, 2003; Abele et al., 2016; Carli et al., 2016; Heilman, 2012; Rudman et al., 2012). A tendency to prioritize the self (versus an orientation toward others) is also a key trait of agency, suggesting that highly agentic individuals will be assumed to be actively looking for and ready to secure better career opportunities for themselves, even at the expense of their current firm. Therefore, agentic stereotypes about men are theoretically consistent with assumptions made about overqualified candidates. This is important because overqualification signals are not interpreted in isolation but within the context of the job candidate's gender. We anticipate that masculine gender stereotypes about agency will amplify the agentic assumptions already made about overqualified candidates, making it exceedingly likely that overqualified male candidates will trigger concerns about their commitment to the prospective firm.

While there is evidence that hiring managers make assumptions about male candidates' tendency to engage in highly agentic behavior (Galperin et al., 2020), the same cannot be said about female candidates. Women are stereotyped to be highly communal (more communal and less agentic compared to men) (Abele, 2003; Eagly et al., 2019; Heilman, 2012). Communality is in opposition to agency and is associated with relationship- and other-orientation (i.e., a tendency toward affiliation, collaborative), deference (i.e., respectful, self-effacing), and warmth (Abele, 2003; Abele et al., 2016; Heilman, 2012; Rudman et al., 2012).<sup>10</sup> In light of these traits, we postulate that communal individuals are less likely to be

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<sup>10</sup> There is evidence that gender stereotypes are evolving over time. Initial empirical evidence suggests that the gender gap between men's and women's perceived "agentic-ness" has narrowed (although a gap still exists), but the gap in perceived communality has widened (Eagly et al., 2019).

viewed as “job hoppers” because that behavior requires abandoning and replacing existing relationships at their current firm to secure the next marginally better opportunity; job hopping is more self-interested than other-oriented. Stereotypes about women’s communality and other-oriented tendencies could quell concerns about their likelihood of engaging in self-interested behavior at the expense of the firm (i.e., leaving as soon as a better opportunity comes along) because these traits are fundamentally inconsistent with assumptions about overqualified candidates. Put differently, gender stereotypes about communality should work as a signal dampener for the “agentic-ness” that is communicated by overqualification. We anticipate that this may spare women from negative assumptions about lower levels of commitment to the prospective firm that are typically made about overqualified candidates. Taken together, we hypothesize that the job candidate’s gender and qualification level will interact to impact perceptions of firm commitment.

*Hypothesis 2. The job candidate’s gender and qualification level will interact to impact the job candidate’s perceived firm commitment, such that overqualified male candidates will be perceived as less committed to the prospective firm compared to sufficiently qualified male candidates, but no such penalty will be observed among female candidates.*

### **Gender, Pre-Hire Perceptions of Commitment, and Hiring Outcomes**

Thus far, we have argued that overqualification leads to different inferences about candidates’ commitment to their career and the prospective firm, depending on the gender of the job candidate. We built our argument on prior work showing that candidates perceived to be more committed—whether to their careers or the prospective firm—are more likely to be hired. In line with prior research on the link between pre-hire perceptions of commitment and hiring outcomes, we anticipate that lower levels of perceived firm or career commitment will lead to poorer hiring outcomes for job candidates. The final implication we intend to test is whether perceived career and firm commitment act as mediating mechanisms to explain differences in overqualified and sufficiently qualified male and female candidates’ labor market outcomes. We expect that each type of commitment perception will mediate hiring outcomes and that they should work complementarily:

*Hypothesis 3. Perceptions of career commitment will mediate the relationship between the job candidate's gender, qualification level, and hiring outcomes, such that overqualified female candidates will be more likely to receive job offers compared to sufficiently qualified female candidates because overqualified female candidates will be perceived as more committed to their careers than sufficiently qualified female candidates, but no such difference will be observed among male candidates.*

*Hypothesis 4. Perceptions of firm commitment will mediate the relationship between the job candidate's gender, qualification level, and hiring outcomes, such that overqualified male candidates will be less likely to receive job offers compared to sufficiently qualified male candidates because overqualified male candidates will be perceived as less committed to the prospective firm, but no such penalty will be observed among female candidates.*

### **Overview of Methods**

To test our theory and dig deeper into the mechanisms we proposed, we conducted four experiments and supplemental qualitative analysis using samples of individuals with prior experience evaluating and hiring job candidates. Study 1 provides initial evidence for our theory, showing that overqualification has different effects on men's and women's hiring outcomes. We build on this in Study 2 to test how gender differences in how overqualification impacts hiring outcomes are explained by perceived firm and career commitment (tests H1-H4). Additionally, in Study 2, we conduct a supplemental qualitative analysis of hiring managers' rationale for their evaluations of job candidates, which offers important face validity to our experiments. Studies 3 and 4 use the findings from the qualitative analysis to dig deeper into the mechanisms behind our arguments by testing how assumptions about candidates' characteristics and reasons for leaving their prior firm may explain why female candidates are not subject to a penalty on perceptions of their firm commitment, specifically. Study 3 tests one mechanism we did not initially theorize about but that emerged from qualitative analysis: assumptions about experiences with gender discrimination also explain why female candidates do not experience an overqualification penalty on perceptions of their firm commitment. Study 4 tests how gender stereotypes about communality, as previously theorized, may also explain why the overqualification penalty on perceived firm commitment exists for men but not women. Taken together, this package of studies provides converging evidence in

support of our theory that overqualification leads to different labor market outcomes for male and female job candidates due to perceptions of firm and career commitment.

### Study 1

We conducted a 2 (job candidate gender: male, female) x 2 (job candidate qualification level: overqualified, qualified) between-subjects experiment.<sup>11</sup>

#### Sample

We recruited 293 U.S. citizens on Amazon Mechanical Turk using the CloudResearch platform (60.41% male, 77.05% White/Caucasian, age  $m=40.28$  years) (Berinsky et al., 2012a; Buhrmester et al., 2011a; Litman et al., 2017a).<sup>12</sup> Participants self-identified as currently being employed full time in a supervisory position and having prior experience hiring and evaluating job candidates.<sup>13</sup>

#### Experimental Procedure and Manipulations

Upon consent, participants were instructed to take on the role of a hiring manager at an investment banking firm looking to fill an open Associate Analyst position. Participants were told that the position had previously been filled by individuals with “4 to 6 years of industry experience” and “a degree in Economics, Finance, Accounting, or a related field.” This information provided participants with a reference point for what defined qualified for this position. Participants then responded to three attention check questions about the study instructions. Participants were randomly assigned to 1 of 4 possible conditions. Each condition involved reviewing one profile of a job candidate (each profile was a unique combination of candidate gender and qualification level) and answering questions about their perceptions of the candidate.

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<sup>11</sup> Study 1 is a pre-registered replication (#48578) of a pilot study that was conducted using a sample of MBA students. We improved upon the initial pilot by recruiting a larger sample that was more experienced with evaluating and hiring job candidates using the screening tools available on CloudResearch (previously known as TurkPrime, which is a platform that helps researchers source participants from Amazon Mechanical Turk). Please see Appendix A for details of the pilot study.

<sup>12</sup> Results reported for Study 1 do not include participant gender as a covariate. However, we re-ran all analyses including participant gender as a covariate to ensure that our findings were robust to controlling for the participant's gender. All findings were robust to accounting for the participant's gender. The same is true for Studies 2-4.

<sup>13</sup> To ensure that participants were adequately experienced, we included an additional question in the demographics: “How much prior experience do you have evaluating and hiring job candidates?” (1=None, 5=A great deal). Descriptive analyses revealed that participants had a high amount of hiring experience ( $m=3.982$ ). A small subset of the total participant sample claimed to have no prior hiring experience ( $n=5$  participants indicated they had no experience by answering “1” on the scale). These were randomly distributed across conditions, and results do not change with these participants excluded. Results here include these participants.



Participants were instructed that this candidate had applied for the open Associate Analyst position. Each profile was designed to resemble those of a professional networking website (e.g., LinkedIn) and included information about the candidate's current position and job responsibilities, prior work experience, and education (stimuli modified from that used by Galperin et al., 2020; see Appendix A for sample profile). Participants responded to three more attention check questions following the candidate profile.

**Manipulation of job candidate gender.** Profiles included stereotypically masculine (Thomas) or feminine (Sarah) first names. All subsequent survey items also included the candidate's name to reinforce the candidate's gender.

**Manipulation of job candidate qualification level.** Our goal was to highlight the candidate's qualification level in a way that was not confounded with perceptions of commitment. Our theory also assumes a baseline sufficient level of qualification. To meet these needs, we followed the process previously established by Galperin and colleagues (2020) who compared qualified candidates (control) to overqualified candidates (treatment). The qualified candidate is the control condition, to eliminate the possibility that the less qualified candidate is not selected because of being perceived to be incapable of performing the job. We manipulated qualification level by adjusting three aspects of the candidate's profile: 1) title of current position, 2) amount of industry experience, and 3) description of the candidate's current position. Both qualified and overqualified candidates were described as having an undergraduate degree in Applied Economics and Management from an elite university. All profiles also listed a summer internship position at a prestigious financial services firm to provide additional information about the candidate's work experience. The job responsibilities listed for this summer internship were the same for qualified and overqualified candidates.

**Qualified job candidates.** Qualified candidates were described as having *4 to 6 years* of industry experience and currently holding an *Associate Analyst* position at a top-tier financial services firm. In this role, the qualified candidate was further described as having created a "financing model to support *\$1.5 million* M&A transactions" and had experience managing "all stages of the capital-raising process of *\$1 million* in common stock, preferred stock, and bond offerings." These candidates were qualified for the

position because, in the study instructions, participants were instructed that prior individuals hired for the open Associate Analyst role had “4 to 6 years of industry experience” and a “degree in Economics, Finance, Accounting, or a related field.” Thus, the typical qualifications required for the open position matched the qualified candidates’ skills and accomplishments. Qualified candidates were therefore applying for an open position to make a lateral move (i.e., Associate Analyst position to an open Associate analyst position at a different firm).

***Overqualified job candidates.*** Overqualified candidates were described as having 8-10 years of industry experience and currently holding a *Managing Analyst* position at a top-tier financial services firm. In this current role, the candidate was described as having created a “financing model to support \$1.5 billion in M&A transactions” and had experience managing “all stages of the capital-raising process of \$1 billion in common stock, preferred stock, and bond offerings.” These candidates were also described as having been hired at their current organization as an Associate Analyst and subsequently promoted to Managing Analyst. Overqualified candidates had nearly double the amount of industry experience and currently held a higher-ranking title compared to the qualifications necessary for the open position for which they were applying. Overqualified candidates were therefore applying for an open position to make a downward move (i.e., Managing Analyst position to an open Associate Analyst position at a different firm).

***Qualification level manipulation check.*** Participants responded to items measuring perceptions of the candidate’s competence to test whether the qualification level manipulation worked correctly. The items included (presentation order randomized): “How qualified or unqualified do you think [Thomas/Sarah] is for the position you are hiring for?” (1=Extremely unqualified, 7=Extremely qualified); “To what extent do you think [Thomas/Sarah] is...competent, capable, intelligent, and high-performing” (traits presented in a matrix, order randomized; 1=Not at all, 5=Extremely). Due to the different scale anchors for these items, we followed the recommended practice of using items’ standardized z-scores to create a composite variable representing the candidate’s perceived competence ( $\alpha=.895$ ). Analyses showed the qualification level manipulation was successful: a 2 (gender) x 2 (qualification level) ANOVA on *Perceived Competence* showed a significant main effect of qualification level,  $F(1,292)=5.96$ ,  $p=.015$ , such that overqualified

candidates were perceived to be more competent ( $m=.130$ ,  $SE=.835$ ,  $n=145$ ) than qualified candidates ( $m=-.106$ ,  $SD=.777$ ,  $n=148$ ). A non-significant main effect of candidate gender ( $p=.298$ ) and two-way interaction term ( $p=.491$ ) shows that the manipulation worked the same across candidate gender conditions.

## Measures

**Attention checks.** Participants responded to three attention check items immediately following the study instructions<sup>14</sup> and three more attention check items following the candidate's profile.<sup>15</sup> In both the case of the study instruction attention checks and the candidate profile attention checks, if participants responded to at least one of these items incorrectly, they were forced to review the study materials again before proceeding, which reinforced the important study information.

**Offer.** Participants responded to one item designed to measure the job candidate's labor market outcome: "How likely or unlikely would you be to offer [Thomas/Sarah] the Associate Analyst position?" (1=Extremely unlikely, 7=Extremely likely).

## Study 1 Analyses and Discussion

Descriptive analyses are reported in Table 1.1 and the results are graphed in Figure 1.1. Consistent with our theory, a 2 (gender) x 2 (qualification level) ANOVA on *Offer* showed a significant gender x qualification level two-way interaction,  $F(1,289)=32.06$ ,  $p<.001$ . Bonferroni-adjusted contrast testing showed that overqualified male candidates ( $m=5.429$ ,  $SD=1.084$ ,  $n=70$ ) were less likely to receive a job offer than qualified male candidates ( $m=6.077$ ,  $SD=.977$ ,  $n=78$ ) (contrast,  $p<.001$ ). However, the reverse was true of female candidates: overqualified women were more likely to receive a job offer ( $m=6.307$ ,

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<sup>14</sup> The correct answer is italicized below, and the presentation of items was randomized: "Which below best describes the industry your firm is in?" (*Investment banking*, Consulting, Tech; order of responses randomized); "Which below best describes the position you are hiring for?" (*Associate Analyst*, Managing Analyst, Business Consultant; order of responses randomized); "Which below best describes how much prior industry experience individuals hired for this position typically have?" (3-4 years, *4-6 years*, 6-8 years, 8-10 years). Participants who saw study instruction reinforcements or profile reinforcements were included in the final analyses because results did not change when these participants were excluded.

<sup>15</sup> To make subsequent coding easier, two of the three statements were altered slightly to match the condition the participant was randomly assigned to. These changes are indicated with brackets in the following statements (the correct answer is italicized, and the presentation of items was randomized): "The job applicant currently works for Deloitte Consulting" (True/*False*); "The job applicant's current job title is [qualified condition: "Associate Analyst"; overqualified condition: "Managing Analyst"]" (*True*/False); "The job candidate has [qualified condition: "4-6 years"; overqualified condition: "8-10 years"] of industry experience" (*True*/False). Participants who saw study instruction reinforcements or profile reinforcements were included in the final analyses because results did not change when these participants were excluded.

$SD=.716$ ,  $n=75$ ) compared to qualified women ( $m=5.743$ ,  $SD=.846$ ,  $n=70$ ) (contrast,  $p=.002$ ) and overqualified male candidates (contrast,  $p<.001$ ). These findings are consistent with the notion that overqualification is detrimental to male candidates but not female candidates.<sup>16</sup> While we hypothesized about the interaction only, we also observed a non-significant main effect of qualification level ( $p=.693$ ) and a significant main effect of candidate gender,  $F(1, 289)=6.46$ ,  $p=.012$ . The main effect showed that, averaging across qualification level, female candidates were more likely to receive job offers than male candidates.

Study 1 provided initial experimental evidence consistent with our theorizing: overqualified male candidates were less likely to be hired than qualified male candidates. However, overqualified female candidates were *more likely* to be hired than qualified female candidates and overqualified male candidates. These results provide preliminary evidence of a gender difference in an overqualification penalty that is consistent with our theory and prior research (Galperin et al., 2020). However, the core of our argument concerned how the candidate's gender and qualification level interact to impact perceptions of firm and career commitment and, in turn, the candidate's hiring outcomes. This motivated us to conduct a second experiment.

## Study 2

To examine how firm and career commitment perceptions explain the gender differences documented in Study 1, we conducted a second experiment using a sample of experienced hiring managers. Study 2 used the same 2 (gender) x 2 (qualification level) between-subjects experimental design.<sup>17</sup>

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<sup>16</sup> Both Study 1 and the Pilot Study document a significant gender x qualification level two-way interaction on *Offer* and show the same pattern of means. One difference is that in the Pilot Study the contrast test conducted between qualified and overqualified female candidates was not statistically significant (but is significant in Study 1), although the pattern of the interaction is the same across both studies. We anticipate that this happened because Study 1 participants were more experienced evaluating job candidates, and therefore more sensitive to the relevant signals compared to the sample of MBA students used in the Pilot Study. Indeed, Study 1's participants self-reported being more experienced with evaluating and hiring job candidates ( $m=3.983$ ) compared to the Pilot Study's MBA students ( $m=2.847$ ). We discuss this in more detail in Appendix A.

<sup>17</sup> A pre-registered replication of Study 2 was conducted (#48581) using a sample of 291 U.S. citizens recruited from Amazon Mechanical Turk via the CloudResearch (Berinsky et al., 2012a; Buhrmester et al., 2011a; Litman et al., 2017a). All gender x qualification level interaction effects on *Perceived Firm Commitment*, *Perceived Career Commitment*, and *Offer* documented in Study 2 were replicated. The moderated mediation models documented in Study 2 were also replicated. Please see Appendix A for results and analyses of the replication study.

## Sample

215 hiring managers were recruited using Qualtrics panel data services (28.3% male, 61.8% White/Caucasian, age  $m=35.84$  years).<sup>18</sup> Qualtrics recruited participants for the study using two criteria: participants must be based in the United States and provide proof to Qualtrics that they currently work as a hiring manager.<sup>19</sup>

## Experimental Procedure, Manipulations, and Measures

Study 2 used the same experimental paradigm, procedure, and manipulations as Study 1.

### Measures.

**Attention checks.** Participants responded to the same attention check questions described in Study 1, and Study 2 followed the same procedure to reinforce important study information.<sup>20</sup>

**Qualification level manipulation check.** The same manipulation check items described in Study 1 were used in Study 2. Standardized z-scores were averaged to create a composite representing the candidate's perceived competence ( $\alpha=.878$ ). Analyses showed that the qualification level manipulation was successful: a 2 (gender) x 2 (qualification level) ANOVA on *Perceived Competence* showed a significant main effect of qualification level,  $F(1,211)=40.49, p<.001$ , such that overqualified candidates were perceived to be more competent ( $m=.337, SD=.731, n=107$ ) than qualified candidates ( $m=-.334, SD=.765, n=108$ ). A non-significant main effect of candidate gender ( $p=.162$ ) and a non-significant two-way interaction term ( $p=.792$ ) showed that the manipulation worked the same across candidate gender conditions.

**Perceived firm commitment.** We used previously validated items to measure perceived firm commitment (Galperin et al., 2020). Participants responded to the following (randomized): "How committed or uncommitted to the firm would you expect [Thomas/Sarah] to be?" (1=Extremely

<sup>18</sup> Please also note that while Study 2's sample skewed female, participant gender did not moderate any effects and all effects are robust to controlling for participant gender (see Footnote 11).

<sup>19</sup> We included the same question regarding prior hiring experience in Study 2 that is reported in Study 1 (see Footnote 12). Descriptive analyses showed that Study 2 participants were highly experienced in evaluating and hiring job candidates ( $m=3.981$ ).

<sup>20</sup> Participants who saw reinforcements for these attention checks and the profile attention checks were included in the final analyses because results did not change with these participants excluded.

uncommitted, 7=Extremely committed); “If the firm needed to ask [Thomas/Sarah] to work extra hours without overtime pay, how likely or unlikely is it that [s/he] would meet that request?” (1=Extremely unlikely, 7=Extremely likely); “How likely or unlikely do you think it would be for [Thomas/Sarah] to remain at the firm for the long term?” (1=Extremely unlikely, 7=Extremely likely). A composite variable was created to represent the candidate’s perceived firm commitment ( $\alpha=.853$ ).

**Perceived career commitment.** Participants responded to the following (randomized): “How committed or uncommitted do you think [Thomas/Sarah] is to [his/her] career, in general?” (1=Extremely uncommitted, 7=Extremely committed); “How committed or uncommitted do you think [Thomas/Sarah] is to advancing in [his/her] career?” (1=Extremely uncommitted, 7=Extremely committed). A composite variable was created to represent the candidate’s perceived career commitment ( $\alpha=.766$ ).<sup>21</sup>

**Offer.** Participants responded to the same item measuring likelihood to receive a job offer described in Study 1.

## Study 2 Analyses

Descriptive statistics are reported in Table 1.1. We conducted a series of ANOVAs to test for gender and qualification level differences in perceived career commitment, perceived commitment to the prospective firm, and likelihood of receiving a job offer. Mediation analyses were conducted to test whether perceived commitment explained the relationship between gender, qualification level, and hiring outcomes.

**Perceived career commitment.** A 2 (gender) x 2 (qualification level) ANOVA on *Perceived Career Commitment* showed a main effect of gender,  $F(1,211)=4.29$ ,  $p=.040$ : male candidates were perceived to be more committed to their careers ( $m=5.637$ ,  $SD=1.251$ ,  $n=102$ ) compared to female candidates ( $m=5.252$ ,  $SD=1.516$ ,  $n=113$ ). This finding is consistent with prior research (Bielby & Bielby, 1984; Correll et al., 2007; Rivera & Tilcsik, 2016) and our theorizing that women are generally perceived

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<sup>21</sup> To ensure that firm and career commitment were indeed two distinct constructs, a factor analysis was conducted (principle factor). Considering that the items are correlated with one another, we used oblique rotation rather than varimax (often the default), which assumes an orthogonal relationship. Two factors emerged from this analysis: 1) perceived firm commitment (perceived firm commitment item  $loading=.784$ ; perceived willingness to work extra hours item  $loading=.739$ ; likelihood to retain item  $loading=.847$ ) and 2) perceived career commitment (perceived career commitment item  $loading=.825$ ; perceived commitment to advancement in career item  $loading=.833$ ). This factor analysis provides additional evidence that perceived firm and career commitment are distinct constructs.

to be less committed to their careers than men. Of greater interest was the significant gender x qualification level two-way interaction,  $F(1,211)=9.82$ ,  $p=.002$  (see Figure 1.2). Bonferroni-adjusted contrast testing showed that overqualified women were seen as more committed to their careers ( $m=5.813$ ,  $SD=1.457$ ,  $n=56$ ) compared to qualified women ( $m=4.702$ ,  $SD=1.375$ ,  $n=57$ ) (contrast,  $p<.001$ ). Qualified and overqualified men were indistinguishable in their perceived career commitment (contrast,  $p>.15$ ). The combination of higher perceived career commitment for overqualified women (versus qualified women) and no difference among male candidates provides support for H1. Although not formally hypothesized, there was also a significant main effect of qualification level,  $F(1,211)=8.53$ ,  $p=.004$ : qualified candidates were perceived to be less committed to their careers ( $m=5.153$ ,  $SD=1.358$ ,  $n=108$ ) than overqualified candidates ( $m=5.720$ ,  $SD=1.404$ ,  $n=107$ ).

**Perceived firm commitment.** A 2 (gender) x 2 (qualification level) ANOVA on *Perceived Firm Commitment* showed no main effects of gender ( $p=.579$ ) or qualification level ( $p=.776$ ). Consistent with our theorizing, we observed a significant gender x qualification level two-way interaction,  $F(1,211)=29.33$ ,  $p<.001$  (see Figure 1.3). Bonferroni-adjusted contrast testing showed support for our hypotheses. Overqualified men ( $m=4.229$ ,  $SD=1.500$ ,  $n=51$ ) were perceived to be less committed to the prospective firm compared to qualified men ( $m=5.225$ ,  $SD=1.060$ ,  $n=51$ ) (contrast,  $p=.001$ ). This result is consistent with H2. Overqualified women were perceived to be more committed to the prospective firm ( $m=5.306$ ,  $SD=1.361$ ,  $n=56$ ) compared both to qualified women ( $m=4.380$ ,  $SD=1.308$ ,  $n=57$ ; contrast,  $p=.002$ ) and to overqualified men (contrast,  $p<.001$ ). We initially theorized that female candidates would merely evade the overqualification penalty on perceptions of their firm commitment. But these results suggest that overqualification may boost women's perceived firm commitment. We discuss this interesting and unexpected finding more in Study 2's discussion.

**Offer.** A 2 (gender) x 2 (qualification level) ANOVA on *Offer* showed a significant gender x qualification level two-way interaction,  $F(1,211)=39.57$ ,  $p<.001$  (see Figure 1.4). Bonferroni-adjusted contrast testing showed results consistent with H3 and H4. First, overqualified men were less likely to receive a job offer ( $m=4.235$ ,  $SD=1.644$ ,  $n=51$ ) compared to qualified men ( $m=5.667$ ,  $SD=1.337$ ,  $n=51$ )

(contrast,  $p < .001$ ). Consistent with our theory about a non-penalty for women, overqualified women were more likely to receive a job offer ( $m = 5.696$ ,  $SD = 1.400$ ,  $n = 56$ ) compared to qualified women ( $m = 4.579$ ,  $SD = 1.535$ ,  $n = 57$ ) (contrast,  $p = .001$ ) and overqualified men (contrast,  $p < .001$ ). While not formally hypothesized, we also observed that qualified women were less likely to receive job offers than qualified men (contrast,  $p = .001$ ). This finding is consistent with prior work showing gender bias leading to the discounting of women's skills and competence (e.g., Foschi, 2009). While our hypotheses focused on the interactive effect, we also observed no main effects of gender ( $p = .358$ ) or qualification level ( $p = .439$ ).<sup>22</sup> These findings replicate the gender x qualification interaction on *Offer* documented in Study 1 findings, both of which show that overqualification has different effects on hiring outcomes for men and women. Additional qualifications appear to be a liability for male candidates but increase female candidates' chances of being selected.

**Mediation analyses.** To formally test H3 and H4, which concern whether firm and career commitment mediate the relationship between gender, qualification level, and likelihood to receive a job offer, we conducted two bootstrapped moderated mediation analyses using PROCESS (Preacher et al., 2007; Preacher & Hayes, 2004). See Figure 1.5 for a summary of the results.

**Career commitment.** We conducted a bootstrapped moderated mediation analysis to determine whether, as hypothesized in H3, perceived career commitment mediated the positive relationship between overqualification and likelihood to receive a job offer for female candidates. The mediation model included *Overqualification* as the predictor, *Perceived Career Commitment* as the mediator, and *Offer* as the outcome variable (reference category was qualified candidates). The first path was moderated by *Female Candidate*.

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<sup>22</sup> The reader may notice that in Study 1 we documented a significant main effect of gender but in Study 2 the main effect of gender was non-significant. We do not spend time discussing this because our hypotheses focused on the interaction effects when it comes to job offers. The interaction effect did replicate across both studies with the same pattern of means. We anticipate that Study 1's main effect could be reflecting a new finding that successful women are perceived to be exceptional, particularly in male-dominated contexts (the hiring context in our experimental paradigm is finance) (Bohren et al., 2019; Botelho & Abraham, 2017; Rosette & Tost, 2010). Qualified and overqualified female candidates in these stimuli are both successful because they have jobs at a high-ranking finance firm, although they vary in industry experience and title (the relative difference between overqualified and qualified is elucidated in the interaction term). The experienced hiring managers we used as a sample in Study 2 may have been less susceptible to the general tendency to rate women in male-dominated contexts more positively compared to the sample recruited using CloudResearch. However, Study 1 participants still reported being moderately experienced. We discuss this possibility more in the discussion following Study 2.



Results supported H3: we observed that the Index of Moderated Mediation was significant ( $b=.719$ ,  $SE=.201$ , 95% CI:  $\{.249, 1.273\}$ ), indicating that the overall moderated mediation model was significant. Next, we interpreted the Table of Indirect Effects to better understand the nature of the *Overqualification*  $\rightarrow$  *Perceived Career Commitment*  $\rightarrow$  *Offer* mediation model for male versus female job candidates. Results showed a positive indirect effect of *Overqualification* on *Offer* via *Perceived Career Commitment* for female candidates ( $b=.694$ , 95% CI:  $\{.336, 1.091\}$ ), indicating that overqualification boosted female candidates' likelihood of receiving a job offer and this was explained by perceptions of career commitment (supports H3). There was no significant indirect effect for male candidates (95% CI:  $\{-.345, .263\}$ ), indicating that career commitment perceptions did not inform hiring decisions about male candidates. This finding is also consistent with our theory.

**Firm commitment.** We conducted a bootstrapped moderated mediation analysis to determine whether, as hypothesized in H4, perceived firm commitment mediated the negative relationship between overqualification and hiring outcomes for men. The model included *Overqualification* as the predictor, *Perceived Firm Commitment* as the mediator, and *Offer* as the outcome variable (reference category was qualified candidates). The first path was moderated by *Female Candidate*. Results supported H4: we observed that the Index of Moderated Mediation was significant ( $b=1.182$ ,  $SE=.356$ , 95% CI:  $\{1.130, 2.508\}$ ), indicating that the overall model was significant. Next, we interpreted the Table of Indirect Effects to better understand the nature of the *Overqualification*  $\rightarrow$  *Perceived Firm Commitment*  $\rightarrow$  *Offer* mediation model for male versus female job candidates. Results showed a negative indirect effect of *Overqualification* on *Offer* via *Perceived Firm Commitment* for male candidates ( $b=-.954$ ,  $SE=.256$ , 95% CI:  $\{-1.445, -.482\}$ ), indicating that overqualification reduced male candidates' likelihood of receiving an offer and this was explained by perceptions of their commitment to the prospective firm (supports H4). We also observed a positive indirect effect for female candidates ( $b=.858$ ,  $SE=.243$ , 95% CI:  $\{.394, 1.334\}$ ), indicating that overqualification boosted women's likelihood of receiving a job offer and this was explained by perceptions of their firm commitment. This is an interesting finding that we did not anticipate. While the benefit that women experienced from overqualification via perceived firm commitment is still theoretically consistent

with the notion of women not experiencing a penalty, this is an intriguing finding that we explore further in Studies 3-4.

### **Discussion of Study 2 Experimental Results**

We conducted a second experiment using a sample of experienced hiring managers to determine whether perceptions of firm and career commitment explained gender differences in how overqualification impacts hiring outcomes. Study 2 extended Study 1's findings and offered additional evidence in support of our theory. Overqualified male candidates were perceived to be less committed to the prospective firm and were less likely to receive a job offer as a result, compared to qualified male candidates (supports H2 & H4). The same could not be said for female candidates, whose perceived firm commitment increased with overqualification. This was an unexpected finding because, based on prior literature, we theorized that the overqualification penalty would merely not be applied to perceptions of female candidates' firm commitment. We did not have any theoretical reason to anticipate that it would boost their perceived firm commitment. However, this finding is still theoretically consistent with the notion of a non-penalty.

Overqualification also uniquely influenced perceptions of women's career commitment: overqualified women were viewed as more committed to their careers than qualified women, which improved their hiring outcomes (supports H3 & H4). This bolsters our argument that possessing additional, costly signals of career investment in the form of (over)qualifications eliminated hiring managers' ability to make the biased assumptions about women's reduced career commitment (Correll et al., 2007; Rivera & Tilcsik, 2016). Qualification level had no impact on men's career commitment, nor did perceptions of men's career commitment ever explain their hiring outcomes (also consistent with our theory). These findings underscore that while male candidates are evaluated along the single dimension of perceived firm commitment, female candidates are evaluated based on their perceived firm and career commitment.

### **Supplemental Qualitative Analysis in Study 2**

In addition to testing our hypotheses quantitatively, we also sought to gain insight into how hiring managers made sense of their inferences and evaluations about job candidates, in their own words. We included two open-ended questions that asked participants to expand upon the rationale behind their

evaluation and postulate about the candidate's motivation behind searching for a new job. The qualitative analysis of these responses served two purposes. First, it provided important face validity to our experimental findings and theorizing. Second, it offered insight into how hiring managers talk about the proposed mechanisms in their own language. This insight was critical because it helped us understand how best to design realistic stimuli and manipulations for our subsequent studies. Qualitative evidence can also elucidate potential mechanisms behind an effect, which can then be empirically tested. We see this qualitative evidence as playing a supporting role next to the experimental evidence and, as such, it was not our goal to cover all aspects of the qualitative responses nor to use these responses to conduct formal hypothesis testing (see Rivera & Tilcsik, 2016 for a similar approach).

With these goals in mind, we elected to analyze these responses using an inductive thematic analytic approach that included manual thematic coding and categorizing of statements (blinded to condition) (Guest et al., 2012; Rivera & Tilcsik, 2016). Participant responses to these open-ended questions were typically one to two sentences and referenced a signal theme. Therefore, each response was labeled with a single theme. This thematic coding was not conducted with the intention of "quantifying" the qualitative data, nor did we quantitatively analyze the counts of these themes. It was our goal to use this coding approach to highlight key themes and ideas that emerged from hiring managers using their own words to describe their thought processes, which aided theory development and our understanding of this phenomenon. This inductive qualitative analysis was conducted by both authors collaboratively. Counts of all statements by theme are displayed in Table 1.2, broken down by candidate gender and qualification level. Although the tendency to use one theme versus another did not differ substantially across gender and qualification level conditions, how these themes were applied did. Below, we discuss important differences in the valence of the comments when hiring managers were evaluating overqualified and qualified male versus female candidates. Please note that because responding to these open-ended responses was optional, hiring managers sometimes responded to only one question or neither. As such, the total tally of statements differs slightly across the two open-ended questions.

**Rationale behind assessment.** The first open-ended question asked participants to explain their evaluation of the candidate and articulate the justification for the ratings they provided ( $n=182$  responses). Initial coding identified four themes: comments about the candidates' 1) commitment to the prospective firm, 2) overall "fit," 3) work ethic, and 4) qualifications and skills. We included a fifth category to describe all other statements that did not fall into any of these categories but were not prevalent enough to warrant a separate category. During subsequent coding iterations, we consolidated Themes #1 and #2 because of the theoretical overlap between discussions of firm commitment and fit. We also consolidated Themes #3 and #4 because of the theoretical overlap in discussions about the candidates' work ethic, qualifications, and skills. In the following paragraphs, we provide an overview of these themes and participants' comments.

Hiring managers appeared equally likely to point to issues of commitment and fit when articulating the rationale behind their evaluations of candidates, yet these ideas were applied differently depending on candidate's gender and qualification level. For women, overqualification was seen as a value-add, with hiring managers describing overqualified women as "very motivated" and "working constantly on improving herself." Overqualified female candidates' additional qualifications were seen as a sign of their work ethic and potential for success: described as "very qualified [for] the position due to the fact that she has 8 years of experience from her previous job," they were viewed as having "so much potential" and anticipated to "do very well and work hard" and, as a result, "will excel" and "move up to higher positions."

In contrast, overqualified male candidates' commitment and fit to the firm were questioned. Despite that they were viewed as "highly qualified," their additional qualifications were seen as negative indicators of their firm commitment, as articulated by one hiring manager:

*"Thomas was very qualified...but if he was offered a higher position, higher-paying job, he would be a fool not to take it. Commitment to his career comes before commitment to the company."*

This sentiment was echoed by others, who noted that male candidates were "overqualified" and seemed "a little too good" for the position. As a result, hiring managers were "just not sure he fits" and worried these candidates might "leave if he finds a higher paying position." Thus, men's additional qualifications were

largely viewed with suspicion, with one hiring manager commenting that it “seems odd that he would take a step backward.” These findings are consistent with our initial theorizing about overqualified male candidates being more likely to be viewed as a “job hopper” who has many other alternatives beyond the prospective firm (e.g., Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012).

Intriguingly and consistent with the quantitative results, this pattern reversed for qualified candidates. Whereas overqualified women were praised for their achievements, which was taken as evidence of their commitment, qualified women’s commitment was doubted. Although most hiring managers acknowledged that these candidates “ha[d] the qualifications for the position,” their commitment was questioned:

*“Sarah has an excellent educational background but limited and brief stints of work experience. She is most likely quite intelligent but has yet to prove true company loyalty or long-term service.”*

In contrast, qualified men were described as “smart” and “eager,” and their “loyalty, commitment, and character” were praised. This made them appear to be a “perfect fit,” with one hiring manager noting that they probably “seek stability” and are “trying to find his place [and] that could be with our firm, which is why I would give him a chance.” The negative reaction to qualified female candidates is consistent with prior work showing that women’s achievements are discounted, compared to those of men (e.g., Biernat & Fuegen, 2001; Foschi, 1996, 2009).

**Inferences about reason for leaving prior firm.** The second open-ended question asked participants why they thought the candidate was applying for the open position and leaving their current firm ( $n=195$  responses). As with the first open-ended question, initial coding generated multiple themes. These included comments about the candidates’ desire for 1) advancement or opportunity, 2) additional experience and challenges, 3) a change due to dissatisfaction with their current job, 4) increased flexibility and work-life balance, and 5) the opportunity to earn more rewards such as increased pay. A sixth category was created to represent responses where hiring managers indicated they did not know why the candidate was looking to change firms. A seventh category was created to describe all other statements that did not fall into any of these categories but were not prevalent enough to warrant a separate category. During

subsequent coding iterations, we consolidated Themes #1, #2, and #5 because these all covered the general assumption that candidates were looking to change firms due to a desire for career advancement and opportunities. We consolidated Themes #3 and #4 because both related to assumptions that candidates were looking to change firms due to a desire for a change and dissatisfaction with their current situation (lifestyle or work-related). We combined Theme #6, which included hiring managers' indication that they did not know why the candidate was changing firms, with Theme #7, all other responses. In the following paragraphs, we provide a high-level overview of these themes and participants' discussions.

As with the first open-ended question, here too, qualified men were described positively and as “looking for growth opportunities” and seeking out “career advancement opportunities...[and] challenging himself early [in] his career.” Some hiring managers postulated that these candidates wanted to leave their current firm because they were “stagnating at [their] current place” or their firm “didn’t value [them].” Although some hiring managers saw qualified women as looking to improve themselves, whether it was to “gain experience in a larger firm to build her resume” or “challenge herself more,” others held views more consistent with gender biases about career commitment (Correll et al., 2007; Ridgeway & Correll, 2004a; Rivera & Tilcsik, 2016). Hiring managers theorized that qualified women may be changing firms so “to work somewhere that isn’t as tough on her” and is “looking for a job at a firm where she doesn’t have to push herself to advance.” Others used coded language to suggest that candidates were looking to prioritize family, stating that qualified women want “to find a better fit for her lifestyle” by working for a firm that “align[s] with her personal goals.” However, others directly suggested that “she’s not here for the job” and “recognizes the new company has more flexible arrangements,” which provides the “chance to have more family opportunities.” It is important to note that these assumptions about women’s desire to “slow down” in their career and prioritize family were made about *qualified* female candidates; these candidates were making lateral moves in their career, whereas overqualified female candidates were the ones making downward moves.

A different pattern emerged among comments about overqualified male and female candidates. Hiring managers that assumed that overqualified women were applying for new positions out of a desire

for advancement also inferred that they were doing so to bypass unfair barriers. Hiring managers suggested that overqualified women might be facing a glass ceiling of sorts, suggesting that they were “simply trying to find somewhere to advance her career” or looking for “more upward mobility” and “better job opportunities.” One theorized they were “stuck” and “looking to change companies...maybe there’s no room for growth and she may find it elsewhere.” This is consistent with a new stream of research showing that assumptions about women’s possible experiences with gender discrimination influence evaluations of women in the workplace (Abraham, 2020; Bohren et al., 2019; Botelho & Abraham, 2017; Campbell et al., 2020; Rosette & Tost, 2010). We discuss this intriguing finding in more detail in our discussion of the qualitative evidence.

Though overqualified women’s desire for advancement was interpreted to be a reaction to existing and perhaps unfair barriers to their advancement, the same could not be said for overqualified men. Many hiring managers acknowledged it was likely that the overqualified male candidate was trying to “advance his career” and find “new opportunities,” but responses were colored by mistrust, and many found it odd that “he wants to advance his career by stepping back.” One hiring manager captured this:

*“...he is probably ready for new opportunities and a new environment. However, the position he is applying for is a step down from where he is now in his career, so [I] have to worry that he thinks he might be too good for this job.”*

Overqualified men thought to be leaving out of a desire for change or dissatisfaction in their current role were described in less forgiving terms, compared to when overqualified women were assumed to be leaving for the same reason. Whereas some hiring managers postulated that overqualified men might simply be “unhappy at work,” others suggested that they may be incapable of performing their job; one comment suggested that “his current company left him unprepared for his role, which is now overwhelming.”

**Discussion of qualitative findings.** Results from our qualitative analysis of open-ended responses mirrored Study 2’s experimental findings: overqualified male candidates were viewed negatively but overqualified female candidates were viewed positively. However, one theme emerged that was not part of our original theory about why gender would change how overqualification was interpreted in the labor market: hiring managers perceived overqualified women as highly committed to their careers but seeking

a change due to unfair obstacles to their advancement in their current firm. Put differently, hiring managers made assumptions about overqualified women's possible experiences with gender discrimination and how these experiences might motivate them to apply for new positions and change firms.

The notion that hiring managers make assumptions about candidates' prior firm experiences and how those experiences motivate candidates' choices and behavior bears some similarity to prior work on "level-k" reasoning in economics, which put forth that individuals make decisions based on beliefs about the likelihood of others engaging in strategic actions (Nagel, 1995; Stahl & Wilson, 1994, 1995). More relevant is a nascent stream of literature in psychology and organizational behavior showing that growing awareness of gender discrimination in society (e.g., Bennett, 2018; Zimmer, 2015) influences perceptions of men and women in the workplace. For instance, Rosette and Tost (2010) showed experimentally that high-ranking female leaders were perceived more positively than equivalently high-ranking male leaders, an effect driven in part by the endorsement of the presence of gendered double standards. The logic is that if individuals assume it is generally harder for women to secure top-tier leadership positions compared to men due to discriminatory barriers, then it follows that the women who have secured these positions must be exceptional compared to men who have accomplished the same (see also Bohren et al., 2019). As another example, Abraham (2020) provided suggestive evidence that assumptions about whether a third party held gender biased beliefs influenced decisions about whether to make career-advancing introductions between women and that third-party.

Drawing upon this prior work and the qualitative evidence, we theorize that assumptions about women's prior firm experiences make it easier for hiring managers to rationalize women's overqualification and "explain away" any concerns about their commitment to the prospective firm, specifically. Hiring managers make broader assumptions about how women experience fit (or lack thereof) in the firms they work for and how those experiences may motivate them to change firms (Rivera, 2012; Turco, 2010). Widespread awareness of the double standards that women face while advancing in their careers may lead hiring managers to presume that female candidates' prior firm was not a good fit because of unfair barriers preventing their advancement. These concerns would be highly salient when evaluating overqualified



female candidates; why else would women be willing to leave a higher-ranking position in their current firm?

The motivation of leaving firms to escape unfair barriers is uniquely relevant to inferences about commitment to the prospective firm because this motivation assuages concerns about flight risk. If the only reason overqualified women are applying for a relatively lower-ranking position in the prospective firm is to escape unfair barriers preventing their advancement in their prior firm, it is rational to expect that they would then be less likely to leave the prospective firm if it provided them with the fair advancement opportunities they currently lack. Prior work showing that individuals assume others hold more biased beliefs than they themselves hold supports this reasoning (Pronin, 2007; Pronin et al., 2002; Uhlmann & Cohen, 2005). If extrapolated to the context of hiring decisions, hiring managers may assume that other firms are more likely to have discriminatory and biased practices compared to their own firm. They would assume, therefore, that overqualified female candidates would have no reason to leave the prospective firm because it would provide them with fair advancement opportunities. These same assumptions cannot be made about overqualified male candidates because it is well known that men do not experience the same gender-biased barriers to their career advancement that women experience.

Taken together, we propose that an additional mechanism informs perceptions of female candidates' commitment to the prospective firm, which explains why female candidates are not subject to the same overqualification penalty applied to male candidates: assumptions about experiences with gender discrimination in prior firms. The identification of this new mechanism and subsequent additional theorizing are in line with an abductive approach to conducting research, which involves reasoning from data to generate and refine theory (Behfar & Okhuysen, 2018; Dunne & Dougherty, 2016). Results from this supplemental qualitative analysis informed additional theorizing about the phenomenon of how overqualification impacts perceptions of men's and women's commitment, which was scaffolded to our initial theoretical framework and experimental evidence from Studies 1 and 2. We anticipate that this new mechanism that informs perceptions of commitment to the prospective firm operates in tandem, and perhaps complementarily, with our previously theorized mechanism of gender stereotypes about communality (to

be tested directly in Study 4). We conducted a third experiment to directly test whether assumptions about prior experiences with gender discrimination explained gender differences in how overqualification impacted perceptions of candidates' commitment to the prospective firm.

### Study 3

Building on findings from Studies 1 and 2 and qualitative analysis, we designed Study 3 to examine how assumptions about men's and women's prior firm experiences explain gender differences in how overqualification influences perceived firm commitment and hiring outcomes. We theorized that this provides a way to rationalize women's overqualification and reduce concerns about overqualified female candidates' flight risk, thereby shielding them from the negative assumptions made about overqualified male candidates' motivations. To test this idea, we used the same experimental design as in Studies 1 and 2 but added a third manipulation. We manipulated the implied reason for candidates' departure from their prior firm by articulating whether the prior firm was known to have a meritocratic or non-meritocratic approach toward promotion and advancement (Castilla & Benard, 2010). We manipulated the description of the prior firm instead of providing explicit information about the candidate's experiences with discrimination because our goal was only to cue concerns about gender discrimination in hiring managers' minds. Evidence indicates that when participants are aware that researchers are studying bias, discrimination, or other socially undesirable behaviors, they change their responses (e.g., Clark & Desharnais, 1998; Mick, 1996). This suggests that a heavy-handed manipulation about gender discrimination experiences could lead participants to change their responses. In general, we anticipate that candidates looking to leave firms (as indicated by their decision to apply for the open position in the prospective firm) described as having non-meritocratic policies will be perceived to be leaving for that reason. This should be particularly salient when evaluating female candidates. Candidates leaving firms that are described as having meritocratic systems, in contrast, will be more likely to be assumed to be leaving out of pure self-interest and not due to any fault of the prior firm, regardless of gender.

If overqualification increases perceptions of female candidates' firm commitment because hiring managers assume that women faced unfair barriers to their advancement in their prior firm, then providing

information about women's prior firm experiences should either trigger or eliminate this effect. More specifically, providing information about the meritocratic approach to promotion and advancement that the candidate's prior firm took would remove hiring managers' ability to assume that overqualified women were leaving that firm to escape gender discrimination. In this scenario, the overqualification penalty on perceived firm commitment should be activated for female candidates (i.e., the gender difference is "turned off" because male and female candidates would both be subject to a penalty). Activating this overqualification penalty for female candidates under these circumstances would provide sufficient evidence to rule in the mechanism that hiring managers tend to assume that female candidates, particularly overqualified female candidates, have legitimate reasons to leave their prior firms. Leaving a prior firm to escape unfair discrimination provides hiring managers with little reason to anticipate lower commitment to the prospective firm. If results show that overqualified men and women are only treated the same in conditions where their prior firms are described as having a meritocratic approach to advancement, this suggests assumptions about the prior firm context is a mechanism driving this effect (see Spencer et al., 2005 for details on how to use manipulation to demonstrate a causal chain). Thus, Study 3 used a 2 (gender) x 2 (qualification level) x 2 (prior firm: meritocratic, non-meritocratic) between-subjects experimental design.

### **Sample**

424 U.S. citizens on Amazon Mechanical Turk were recruited using CloudResearch (Berinsky et al., 2012a; Buhrmester et al., 2011a; Litman et al., 2017a). Participants self-identified as currently being employed full time and having prior experience hiring and evaluating job candidates (60.4% male, 71.1% White/Caucasian, age  $m=35.5$  years).<sup>23</sup>

### **Experimental Procedure, Manipulations, and Measures**

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<sup>23</sup> The same item designed to measure participants' prior experience evaluating and hiring job candidates used in Studies 1 and 2 was also included here. Although the sample of hiring managers in Study 2 was more experienced on average ( $m=3.931$ ), participants in Study 3 still had a moderate amount of experience hiring and evaluating job candidates ( $m=3.047$ ). A small subset of the sample claimed to have no prior hiring experience ( $n=65$  responded "1" on the 5-point Likert scale). These were randomly distributed across conditions, and results do not change with these participants excluded. Results here include these participants.

**Procedure and manipulations.** Upon consent, participants received the same study instructions used in Studies 1 and 2 and were randomly assigned to review 1 of 8 possible profiles (each profile included a unique combination of gender, qualification level, and prior firm meritocracy condition). A key difference in Study 3's procedure was that each profile was also accompanied by a brief description of whether the candidate's prior firm was meritocratic or non-meritocratic. Participants then responded to attention check items, manipulation checks, and measures of perceptions of the candidate's commitment.

**Candidate gender and qualification level manipulations.** Study 3 used the same gender and qualification level manipulations described in Studies 1 and 2.

**Meritocratic nature of prior firm manipulation.** We used a previously validated method to manipulate the meritocratic nature of the candidate's prior firm (see Castilla & Benard, 2010 for use of this manipulation to different ends). This information was provided in the form of a short statement above the candidate's profile. Non-meritocratic firms were described as: "The firm that [Thomas/Sarah] currently works for cites the following core values when describing its culture: (1) All employees are to be *evaluated regularly*, (2) Raises and bonuses are *to be given based on the discretion of the manager*, and (3) Promotions are given to employees when *their manager decides they deserve it*." Meritocratic firms were described as: "The firm that [Thomas/Sarah] currently works for cites the following core values when describing its culture: (1) All employees are to be *rewarded fairly*, (2) Raises and bonuses are *determined by the employee's performance*, and (3) Promotions are given to employees when *their performance shows they deserve it*."

### **Measures.**

**Attention checks.** Participants responded to the same study instructions and candidate profile attention checks and used the same procedure to reinforce important study information described in Study 2. Study 3 incorporated one further check to address the additional prior firm meritocracy manipulation.<sup>24</sup>

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<sup>24</sup> To make subsequent coding easier for the attention check item (as with the other attention check items, see Study 2 measures), the wording was altered slightly to match the condition to which the participant was randomly assigned (changes indicated in brackets in the following statement). Participants were also asked to indicate whether the following statement was true or false (correct answer italicized): "The firm the job candidate works for cited the following as one of its core values: [non-meritocratic

**Qualification level manipulation check.** The same items used to measure the candidate's perceived competence in Studies 1 and 2 were also used here. The same procedure to create the composite variable using standardized z-scores was also used here ( $\alpha=.915$ ). A 2 (gender) x 2 (qualification level) x 2 (prior firm meritocracy) ANOVA on *Perceived Competence* showed that the manipulation was successful: we observed a significant qualification level main effect,  $F(1,416)=157.33, p<.001$ , such that overqualified candidates were perceived to be more competent ( $m=.452, SD=.623, n=209$ ) compared to qualified candidates ( $m=-.440, SD=.839, n=215$ ). We also observed that the candidate's qualification level did not interact with their gender ( $p=.242$ ) or the prior firm meritocracy condition ( $p=.185$ ), indicating that the manipulation worked the same for male and female candidates and for candidates coming from meritocratic and non-meritocratic prior firms.

**Meritocratic nature of prior firm manipulation check.** Participants responded to the following item: "To what extent do you think the firm [Thomas/Sarah] currently works for is meritocratic or unmeritocratic?" (1=Extremely unmeritocratic, 7=Extremely meritocratic) (Castilla & Benard, 2010). A 2 (gender) x 2 (qualification level) x 2 (prior firm meritocracy) ANOVA was conducted and showed that the manipulation was successful. There was a significant main effect of prior firm meritocracy condition,  $F(1, 416)=16.51, p<.001$ , such that firms in the meritocratic prior firm condition were perceived to be more meritocratic ( $m=5.521, SD=1.155, n=215$ ) compared to firms in the non-meritocratic prior firm condition ( $m=5.029, SD=1.341, n=209$ ). Importantly, the meritocratic prior firm condition did not interact with candidate gender ( $p=.921$ ) or qualification level ( $p=.918$ ).

**Perceived firm and career commitment.** The same items used in Study 2 to measure perceptions of firm and career commitment were also used here. We created two composite variables to represent perceived firm commitment ( $\alpha=.736$ ) and perceived career commitment ( $\alpha=.942$ ).<sup>25</sup>

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condition: "All employees are to be evaluated regularly"; meritocratic condition: "All employees are to be rewarded fairly"]." (True/False). Participants who saw reinforcements for these attention checks and the profile attention checks were included in the final analyses because results did not change with these participants excluded.

<sup>25</sup> As in Study 2, to confirm that these constructs are distinct, we conducted a factor analysis (principal component, oblique rotation). Results showed that two factors emerged: 1) perceived firm commitment (commitment to the firm *loading*=.642, willingness to work extra hours *loading*=.631, and likelihood to be retained *loading*=.701) and 2) perceived career commitment (commitment to career *loading*=.818, commitment to advancing in one's career *loading*=.797).

### Study 3 Analyses

Descriptive statistics are reported in Table 1.1. ANOVAs were conducted to test for candidate gender, candidate qualification level, and prior firm meritocracy differences in perceived firm commitment and career commitment.<sup>26</sup> Due to the number of effects, all ANOVA analyses are reported in Table 1.3 and only significant results of interest are discussed for each outcome below.

**Perceived firm commitment.** A 2 (gender) x 2 (qualification level) x 2 (prior firm meritocracy) ANOVA on *Perceived Firm Commitment* was conducted (see Table 1.3 and Figure 1.6). First, we observed a significant qualification level x prior firm meritocracy two-way interaction,  $F(1,415)=17.20, p<.001$ . There were no significant interactions with candidate gender, which suggests that gender differences in how overqualification impacts perceived firm commitment were eliminated when information about the prior firm context was provided. Bonferroni-adjusted contrast testing showed that when leaving meritocratic prior firms, overqualified men ( $m=4.660, SD=.888, n=53$ ) were perceived to be less committed to the prospective firm than qualified men ( $m=5.446, SD=.979, n=56$ ) (contrast,  $p<.001$ ). This result is a conceptual replication of findings in Study 2 and is consistent with our theorizing for H2. The difference is eliminated among male candidates leaving non-meritocratic firms (contrast,  $p>.15$ ).

Next, we examined female candidates. Overqualified women ( $m=4.533, SD=.852, n=50$ ) were viewed as less committed to the firm compared to qualified women ( $m=5.285, SD=1.070, n=55$ ), but only when leaving meritocratic firms (contrast,  $p<.001$ ). We also observed that overqualified women leaving non-meritocratic prior firms were perceived to be more committed to the prospective firm than overqualified women leaving meritocratic firms (contrast,  $p<.001$ ). Thus, both overqualified male and female candidates leaving meritocratic firms were viewed as less committed to the prospective firm than qualified male and female candidates. This finding indicates that female candidates leaving meritocratic

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<sup>26</sup> We include analyses on only our two commitment measures here because those are our chief theoretical interest. The link between commitment and hiring outcomes was established in Study 2 and has been examined prior literature, such that higher commitment levels lead to improved hiring outcomes (Galperin et al., 2020; Leung, 2014; Rivera & Tilcsik, 2016). However, we did collect data on hiring outcomes to be comprehensive. Please see Appendix C for supplemental analyses on this outcome variable and moderated mediation analyses.

prior firms were subject to an overqualification penalty on perceptions of their firm commitment like male candidates. Put differently, the gender difference in how overqualification impacts perceived firm commitment documented in the prior studies was “turned off” once information about the candidate’s prior firm was provided. We also demonstrated that when it was clarified that men were leaving firms that did not provide fair advancement opportunities, the overqualification penalty on perceived firm commitment was also eliminated.

**Perceived career commitment.** A 2 (gender) x 2 (qualification level) x 2 (prior firm meritocracy) ANOVA on *Perceived Career Commitment* was conducted (see Table 1.3). We observed a significant gender x qualification level two-way interaction,  $F(1,415)=37.83$ ,  $p<.001$  (see Figure 1.7), but no interactions with the prior firm context. This indicates that gender differences in how overqualification impacted perceived career commitment persisted regardless of the type of firm that candidates were leaving. Bonferroni-adjusted contrast testing showed that overqualified women were perceived to be more committed to their careers ( $m=6.125$ ,  $SD=.836$ ,  $n=100$ ) compared to qualified women ( $m=4.958$ ,  $SD=.957$ ,  $n=107$ ) (contrast,  $p<.001$ ), regardless of the type of firm they were leaving. Overqualified ( $m=6.069$ ,  $SD=1.015$ ,  $n=109$ ) and qualified ( $m=6.028$ ,  $SD=.926$ ,  $n=107$ ) men were indistinguishable in terms of their perceived career commitment (contrast,  $p>.15$ ). These results suggest that regardless of the type of prior firm, overqualification boosted women’s perceived career commitment. But qualification level continued not to impact men’s perceived career commitment (replicates Study 2 and supports H1). These results speak to the distinct nature of perceived firm and career commitment; the prior firm meritocracy manipulation did not affect perceptions of women’s career commitment but affected perceptions of their firm commitment.

### Study 3 Discussion

The primary goal of Study 3 was to directly test whether assumptions about experiences with gender discrimination explain why overqualified women evade a penalty on perceptions of their firm commitment. We did not previously theorize about this mechanism, but it was identified through supplemental qualitative analysis of hiring managers’ evaluations of job candidates in Study 2. Taking an abductive approach, we built on this qualitative analysis to theorize that hiring managers make assumptions

about female candidates' motivation to change firms. Specifically, the assumption is that they are pursuing a relatively lower-ranking position in a new firm only to escape unfair barriers to advancement that exist at their current firm. The goal of Study 3 was to test this idea experimentally. If overqualified women indeed avoid a penalty because of this assumption, then placing female candidates in contexts where that was clearly not the case should have activated the overqualification penalty for women, which would be evidence for this mechanism (see Spencer et al., 2005 for more information on the experimental approach of using manipulation to demonstrate a causal chain).

Our results provided sufficient evidence to rule in this mechanism. Overqualified male and female candidates described as leaving meritocratic prior firms were perceived to be less committed to the prospective firm than qualified male and female candidates. Thus, once it was made clear that women were leaving prior firms that provided them with fair advancement opportunities, hiring managers could no longer assume they were facing discrimination. This scenario activated the overqualification penalty on perceptions of female candidates' commitment to the prospective firm. Also, in support of this argument, overqualified female candidates leaving non-meritocratic prior firms were perceived to be more committed to the firm than overqualified female candidates leaving meritocratic prior firms. Reflecting on these results and those from Study 2, we anticipate that hiring managers presumed that overqualified female candidates would have no reason to leave the prospective firm (i.e., "job hop") if they received equal advancement opportunities. Put differently, if hiring managers assumed that overqualified women were looking for a new position and firm because they wanted to escape unfair discrimination at the prior firm, then it is reasonable to assume that if the prospective firm met that need, they would have no reason to leave. This would again be consistent with prior work showing that individuals tend to believe that others hold more biased beliefs than they themselves hold (Pronin, 2007; Pronin et al., 2002). Extrapolated to the context of hiring decisions, hiring managers may have been operating under the assumption that their own firm would be less likely to have the same discriminatory and biased practices that are prompting overqualified female candidates to change firms. This would reduce hiring managers' concerns about overqualified women's flight risk and commitment to the prospective firm.



Finally, it is important to note that manipulating prior firm meritocracy never changed the positive relationship between overqualification and women's perceived career commitment. Consistent with Study 2, overqualified female candidates were perceived to be more committed to their careers compared to qualified female candidates, regardless of whether the prior firm had meritocratic or non-meritocratic advancement practices. There was also no difference in male candidates' perceived career commitment based on qualification level or prior firm context. The fact that the additional manipulation led to changes in perceived firm commitment, but not career commitment, speaks to the distinct nature of these two dimensions of commitment and clarifies that this mechanism is uniquely relevant to assessments of candidates' commitment to the prospective firm.

#### **Study 4**

In the prior study, we found evidence suggesting that assumptions about candidates' experiences with discrimination are a mechanism that drives hiring managers' tendency to reward women but penalize men for being overqualified. This mechanism emerged from qualitative evidence in Study 2 but was not part of our initial theorizing. The crux of our initial argument for why overqualification would negatively impact perceptions of men's, but not women's, commitment to the prospective firm, was about the inconsistency between agentic assumptions made about overqualified candidates and gender stereotypes about women's increased communality. This argument is built on the well-established gender stereotypes literature, which shows that women are stereotyped to be highly communal (i.e., other-oriented, relationship-oriented, deferent, collaborative) and men are stereotyped to be highly agentic (i.e., achievement- and self-oriented, competitive, independent) (Abele, 2003; Abele et al., 2016; Heilman, 2012). We theorized that highly communal individuals' (i.e., women) other-oriented nature would dampen the overqualification signal and quell concerns about overqualified candidates' flight risk.

We conducted a fourth experiment to test whether gender stereotypes about communality underlie gender differences in how overqualification affects pre-hire perceptions of firm commitment. In Study 4, we manipulated the communality of the candidate using the same approach as in Studies 2 and 3: a 2 (gender) x 2 (qualification level) x 2 (communality: communal, non-communal) between-subjects

experimental design using a sample of experienced hiring managers.<sup>27</sup> As with Study 3, in Study 4, we sought to demonstrate evidence for the mechanism by either activating or eliminating the overqualification penalty by providing clear information about the candidate's communal or non-communal nature. Evidence in favor of this mechanism would show that non-communal male and female candidates are equally likely to experience the overqualification penalty on perceptions of their firm commitment. Similarly, we should also observe that this penalty is eliminated among communal male and female candidates (see Spencer et al., 2005 for more information on the experimental approach of using manipulation to demonstrate a causal chain).

### **Sample**

425 hiring managers were recruited using Qualtrics panel data services (53.5% male, 67.8% White/Caucasian, age  $m=39.12$  years).<sup>28</sup> As with Study 2, Qualtrics recruited participants for the study using two criteria: participants must be based in the United States and provide proof to Qualtrics that they currently work as a hiring manager. Three participants did not fully complete the survey and, as a result, the majority of analyses were conducted with a sample of 422.

### **Experimental Procedure, Manipulations, and Measures**

**Procedure.** This study used the same experimental paradigm and procedure as Studies 1 and 2.

**Manipulations.** This study used the same gender and qualification level manipulations that were used in Studies 1 through 3. Study 4 introduced a third manipulation of the candidate's communality.

**Communality manipulation.** To manipulate the extent to which the candidate was described as having communal or non-communal characteristics, the profile was supplemented with a list of "featured strengths and skills" and a recommendation (see Appendix A for sample stimuli). The recommendations were written to mimic those that colleagues provide for each other on professional networking platforms.

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<sup>27</sup> This study design and predictions were preregistered with AsPredicted.org (#35413).

<sup>28</sup> As in all prior studies, an additional survey item was included in the demographic measures to check the validity of the recruitment procedure: "How much prior experience do you have evaluating and hiring job candidates?" (1=None, 5=A great deal). No participants indicated they had no prior experience hiring job candidates (i.e., no participants responded with a "1" on the scale). Descriptive analyses indicated that participants had a high amount of prior experience evaluating and hiring job candidates ( $m=4.554$ ).

The descriptors (i.e., the words used to describe communal or non-communal traits) used in these recommendations and “featured strengths and skills” were drawn from a list of traits, characteristics, and tendencies that have been empirically validated to be perceived as either communal or non-communal (Rudman et al., 2012). Communal candidates were described using terms such as “strong collaborator,” “cooperative,” and “supportive” in their featured skills and strengths. Non-communal candidates were described as “independent,” “assertive,” and a “self-starter.” The same recommendation was used across the communal and non-communal conditions except with minor adjustments to wording. The recommendation for the communal candidate stated: “(Thomas/Sarah) is an exceptional colleague who has continued to demonstrate his/her *commitment to teamwork and collaborative work*. S/he is a *thoughtful and considerate employee who has thrived at our firm*.” The recommendation for the non-communal candidate stated: “(Thomas/Sarah) is an exceptional colleague who has continued to demonstrate his/her *ability to rise to a challenge*. S/he is a *talented and ambitious individual who is determined to succeed*. (Thomas/Sarah) has really demonstrated his/her ability to thrive in a competitive environment.”

### **Measures.**

**Attention checks.** The same study instructions, profile attention check questions, and procedure for reinforcing study information described in Studies 1-3 were also used in Study 4.<sup>29</sup>

**Candidate qualification manipulation check.** Participants responded to the same measures used in Studies 1-3 that measured perceptions of the candidate’s competence, to test whether our qualification manipulation level was successful. Standardized z-scores for these items were used to create a composite variable ( $\alpha=.844$ ). Analyses showed that the qualification level manipulation did not work the same in Study 4 as it did in prior studies, although we argue that it is still a sufficient manipulation of qualification level. An independent samples t-test showed no significant differences between qualified and overqualified candidates when averaging across gender and communality conditions ( $p=.645$ ). But, a candidate gender x qualification level x communality ANOVA showed a significant gender x qualification two-way

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<sup>29</sup> Participants who saw reinforcements for these attention checks and the profile attention checks were included in the final analyses because results did not change with these participants excluded.

interaction,  $F(1, 417)=5.15, p=.024$ : while qualified men were seen as less competent ( $m=-.089, SD=.806, n=108$ ) than overqualified men ( $m=.110, SD=.754, n=105$ ), the reverse was true of female candidates. Overqualified women were seen as less competent ( $m=-.079, SD=.867, n=110$ ) than qualified women ( $m=.064, SD=.684, n=102$ ). This suggests that the qualification level manipulation worked successfully for male candidates but not female candidates.

It is important to recall that the qualification manipulation worked successfully in all prior studies and has been used successfully in prior work (Galperin et al., 2020). The manipulation may not have worked as planned in Study 4 because inferences about qualifications are intertwined with communality, as we have theorized thus far. Study 4 introduced a third manipulation combined with the gender and qualification manipulations: the candidate's profile included his/her name, qualification level, and recommendations that were either communal or non-communal. This may have changed how participants interpreted the qualification level manipulation for women specifically. Indeed, there is an established literature showing the warmth-competence trade-off that women must manage in the workplace (e.g., Fiske et al., 2002; Phelan et al., 2008; Rudman et al., 2012; Rudman & Glick, 2001). Relatedly, it is also possible that we faced challenges in making communality orthogonal to gender, particularly because perceptions of agency and communality are deeply engrained in gender stereotypes (e.g., Heilman, 2012; Rudman et al., 2012). Regardless of the reason for this challenge, it is difficult to draw strong conclusions from this study as a result. We elaborate on these limitations in Study 4's discussion.

***Perceived firm commitment.*** Since our primary focus is understanding the effect on perceived firm commitment, we focus on that variable here. We used the same items to measure perceived firm commitment that were used in Studies 2-3. A composite variable was created ( $\alpha=.771$ ).<sup>30</sup>

#### **Study 4 Analyses**

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<sup>30</sup> With prior work showing that perceptions of likability are critical to evaluations of women, we also measured the perceived likability of the job candidate to determine if this was related to how overqualified male and female candidates were perceived. We did not see any results to support this claim. Please see Appendix A for details.

Descriptive statistics are reported in Table 1. We conducted an ANOVA to test for gender, qualification, and communality effects on perceived firm commitment.<sup>31</sup> As in Study 3, all results from the ANOVA tests are reported in Table 3, but only significant effects of interest are discussed here.

**Perceived firm commitment.** A gender x qualification level x communality ANOVA on *Perceived Firm Commitment* was conducted (see Table 1.3). We observed a significant qualification level x communality two-way interaction on *Perceived Firm Commitment*,  $F(1,415)=12.24$ ,  $p=.001$  (see Figure 1.8): overqualified non-communal candidates were perceived to be less committed to the firm ( $m=5.129$ ,  $SD=1.499$ ,  $n=85$ ) compared to qualified non-communal candidates ( $m=5.708$ ,  $SD=1.074$ ,  $n=121$ ) (contrast,  $p=.007$ ). This result is consistent with our argument that if assumptions about overqualified candidates' lack of communality underlie the overqualification penalty on perceived firm commitment, this penalty should be present only in the condition where candidates were described as non-communal. Overqualified communal candidates were perceived as committed to the firm compared to qualified communal candidates (contrast,  $p>.15$ ), indicating that there was no overqualification penalty for candidates described as communal. This was true for both male and female candidates, suggesting that once the candidate's (non)communal nature was made explicit, the gender differences in how overqualification affects perceived firm commitment was eliminated.<sup>32</sup>

#### Study 4 Discussion

In Study 4, we built on our initial theorizing that gendered assumptions about candidates' communality explain why overqualification negatively impacts perceptions of men's, but not women's, firm commitment. We theorized that gender stereotypes about women's increased communality operate as

<sup>31</sup> As in Study 3, we focused exclusively on firm commitment because we theorized that this mechanism would explain why overqualification impacts perceptions of men's and women's firm commitment differently. The link between commitment and hiring outcomes was established in Study 2 and extant literature. However, to be comprehensive, we did also collect data on perceived career commitment and job offer likelihood. These supplemental analyses are reported in Appendix A.

<sup>32</sup> Although marginal, we did observe a gender by communal two-way interaction on *Perceived Firm Commitment*,  $F(1,415)=3.21$ ,  $p=.074$ , such that non-communal male candidates were viewed as less committed to the prospective firm ( $m=5.347$ ,  $SD=1.332$ ,  $n=101$ ) than communal male candidates ( $m=5.561$ ,  $SD=1.232$ ,  $n=110$ ). For female candidates, we observe that communal female candidates were viewed as slightly less committed to the prospective firm ( $m=5.417$ ,  $SD=1.274$ ,  $n=107$ ) than non-communal female candidates ( $m=5.587$ ,  $SD=1.254$ ,  $n=105$ ). However, none of the Bonferroni-adjusted contrast tests were significant, making it difficult to draw conclusions about the relationships between these cells in the 2x2.

a signal dampener because highly communal individuals are assumed to be other- and relationship-oriented, deferent, and collaborative (Abele, 2003; Abele et al., 2016; Heilman, 2012; Rudman et al., 2012). These characteristics are inconsistent with agentic assumptions that are made about overqualified candidates (Galperin et al., 2020). Therefore, hiring managers may assume that female candidates and, in particular, overqualified female candidates, will not place their career advancement above the needs of the firm (i.e., “job hop” as soon as the next best opportunity comes along). Men, by comparison, are stereotyped to be highly agentic and less communal (Abele, 2003; Abele et al., 2016; A. Eagly et al., 2019; Heilman, 2012). Hiring managers would therefore be more concerned about men’s likelihood of remaining committed to working at the prospective firm over the long term. While we found evidence in line with these predictions in the prior studies, we tested this idea directly in Study 4 by manipulating the job candidate’s communality.

Results were consistent with our theory. We observed that both overqualified male and female candidates described in non-communal terms were subject to a penalty on perceptions of their commitment to the prospective firm. This penalty was eliminated for male and female candidates described in communal terms. Thus, the overqualification penalty was “turned off” for communal candidates, which provides suggestive evidence to rule in communality (or lack thereof) as a mechanism that underlies the overqualification penalty on perceived firm commitment (Spencer et al., 2005). We also observed that male and female candidates were treated similarly within the communal and non-communal conditions. This indicates that providing information about candidates’ communality eliminated hiring managers’ need to rely on gender as a signal of candidates’ communality. The key is to compare these results with those from Studies 1 and 2. Study 4 suggests that if information about communality is readily available, male and female candidates will be treated similarly in terms of how overqualification is interpreted.<sup>33</sup>

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<sup>33</sup> This appears to be a null finding (i.e., we did not observe gender differences), yet we argue that this is, in fact, evidence of our mechanism. Once we provided information about the candidate’s communality, hiring managers no longer had to use gender as a signal to make inferences about communality. This is similar to what we observe in Study 3, where we document that both male and female candidates leaving meritocratic prior firms are subject to an overqualification penalty on perceptions of their firm commitment. An alternative design for Study 4 that could have provided ideal evidence to this would have been to create three conditions: control (no information), communal, and non-communal. We decided against this study design for several reasons. First, for the control condition to be a control condition, we would have to provide either no communality information or neutral communality information. The former approach is problematic because it would open our design to well-documented information effects, such that the other conditions might be rated differently simply due to the additional information provided. The latter

Although our results support our theory, we encourage caution in drawing strong conclusions from Study 4's findings because of the potential confounding of our qualification and communality manipulations. The qualification manipulation worked successfully in all prior studies; however, it appeared to impact male versus female candidates differently in Study 4. We anticipate that the introduction of our communality manipulation played a role in this and changed how female candidates' qualification level and competence was perceived, specifically. Study 4 attempted to make communality orthogonal to gender to demonstrate that assumptions about communality, not gender per se, can explain gender differences in how overqualification impacts pre-hire perceptions of firm commitment. However, the challenges with the manipulation suggest that it may be difficult to separate gender from communality because it is strongly ingrained in gender stereotypes.

### **General Discussion**

Using a mixed-methods approach, we provide evidence that different pre-hire inferences are made about male and female job candidates' commitment based on their qualifications and that these inferences have important implications for their hiring outcomes. Studies 1 and 2 provide initial experimental evidence in support of our theory. While overqualified male candidates were less likely to receive job offers than qualified male candidates, no such penalty existed for women. This gender difference was explained by the different ways that qualification signals influenced perceptions of firm and career commitment for male and female candidates. Overqualification boosted women's perceived career commitment and, in turn, their likelihood of receiving job offers, whereas men's qualification level never influenced their perceived career commitment (supports H1 & H3). These findings are consistent with our argument that additional qualifications are costly signals that communicate a high level of career investment, which reduces uncertainty about women's career commitment but provide no benefit to men. Thus, we offered evidence of the mechanism by "turning off" gender biased assumptions about women's reduced career commitment

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approach is also problematic because it is quite difficult to find terminology that is truly neutral along the communality dimension. As we note above, disentangling communality from gender proved quite challenging in and of itself and as such, we opted against this three-condition approach.

via signals of their investment in their career. In contrast, overqualified male candidates were perceived to be less committed to the prospective firm, and less likely to receive job offers as a result, than qualified male candidates (supports H2 & H4). But no such penalty existed for female candidates. An overarching finding was that although only perceived firm commitment helped explain differences in male candidates' outcomes, both perceived firm and career commitment were factored into evaluations of female candidates. This clarifies the idea that while men must only demonstrate their commitment to the prospective firm, women must demonstrate their commitment to both the prospective firm and their careers.

An important finding in Study 2 was that overqualified female candidates were perceived as more committed to the prospective firm compared to qualified female candidates. We initially theorized that female candidates would merely escape this overqualification penalty applied to male candidates' firm commitment but did not have reason to anticipate it would boost perceptions of women's firm commitment. Supplemental qualitative analysis of hiring managers' rationales for their evaluations of job candidates provided additional insight for this unexpected but intriguing finding. Qualitative analysis revealed that hiring managers were also making assumptions about female candidates facing unfair and discriminatory barriers to advancement in their prior firm. Evidence for this new mechanism suggests that it is likely operating in tandem with our previously theorized mechanism: gender stereotypes about communality (i.e., women are stereotyped to be communal but men are not). Studies 3 and 4 experimentally tested how both of these mechanisms could increase perceptions of women's, but not men's, commitment to the prospective firm. Results showed that each of these mechanisms was sufficient for hiring managers to "explain away" firm commitment concerns about a candidate and lead them to reward women for possessing additional qualifications. Though these mechanisms are related theoretically speaking, we see them as operating independently and perhaps complementarily. Both can uniquely inform hiring managers' perceptions of male and female job candidates' commitment to the prospective firm.

Study 3 provided evidence in support of assumptions about prior experiences with discrimination as a mechanism. Results showed that once it was clarified that female candidates did not experience discrimination in their prior firms (i.e., they were leaving meritocratic prior firms), their perceived firm



commitment was negatively impacted by overqualification just like male candidates. However, providing additional information about the candidate's prior firm did not change the relationship between qualification level and perceived career commitment. Overqualified women were consistently perceived to be more committed to their careers than qualified women, regardless of the type of firm they were leaving. The fact that the prior firm meritocracy manipulation impacted perceptions only of women's firm commitment, but not their career commitment, speaks to the distinct nature of these two commitment constructs. Study 4 provided suggestive evidence for gender stereotypes about women's increased communality as an additional mechanism. Results showed that male and female non-communal candidates were subject to an overqualification penalty on their perceived firm commitment. However, this penalty was eliminated for male and female communal candidates. This suggests that communality (or lack thereof) also underlies the overqualification penalty on perceived firm commitment. Together, Studies 3 and 4 offered evidence to rule in these two mechanisms as sufficient explanations for differences in how overqualification impacts perceptions of men's and women's commitment to the prospective firm.

This package of studies provides converging evidence for our fundamental argument that gender serves as a filter through which overqualification is interpreted and understood by hiring managers. Each experiment contributes uniquely toward better understanding key outcomes and replicates this core finding. These findings showed that men were consistently penalized for being overqualified but women were not penalized unless there was information provided to hiring managers that forced them to override existing assumptions they had about women's experiences (i.e., prior firm experiences with gender discrimination) and characteristics (i.e., higher communality).

### **Theoretical Contributions and Organizational Implications**

Overqualification is becoming more common in society, particularly in the context of economic downturns and challenging labor market conditions (Indiviglio, 2010; Rose, 2017). Despite this, the effect of overqualification in the labor market has only recently received more scholarly attention, and it remains

a relatively underdeveloped literature (see Erdogan & Bauer, 2021 for a similar point).<sup>34</sup> Empirical evidence from this stream of research shows that overqualification prompts negative assumptions about candidates' commitment to the prospective firm and hurts their hiring outcomes (Bills, 1992; Di Stasio, 2017; Galperin et al., 2020; Shen & Kuhn, 2012; Tan & Rider, 2017). Our paper speaks to this literature and makes this important point: assumptions that firms make about overqualified candidates' commitment levels, particularly candidates' commitment to the prospective firm, can get in the way of hiring potentially higher-quality candidates. Negative assumptions about firm commitment, specifically, might be the basis for rejecting candidates that would otherwise be just as committed as the next candidate, who possesses fewer but sufficient qualifications. Qualifications are easily presented on a resume, but to the extent that commitment matters, it would behoove hiring managers to take the time to find out more about the candidate's potential commitment rather than base their decision on uninformed inferences.

While the importance of perceived commitment to labor market decisions has been established (Bielby & Bielby, 1984; Bielby & Bielby, 1992; Correll et al., 2007; Galperin et al., 2020; Leung, 2014; Rivera & Tilcsik, 2016), we extend this work by focusing on the types of signals that influence pre-hire perceptions of commitment and how these signals vary based on the job candidate's gender. Prior work on overqualification and hiring outcomes has been agnostic about how gender changes the way that overqualification signals are interpreted (e.g., Galperin et al., 2020). This paper underscores that the notion that overqualification is always a liability for job candidates is an incomplete picture of the phenomenon. Our results showed that male candidates experienced a penalty, but women did not and even benefitted from overqualification. The fact that overqualification has opposite effects on men's and women's hiring outcomes is a critical point to acknowledge in order to develop a comprehensive understanding of the relationship between qualifications and men's and women's experiences in the labor market. Thus, this

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<sup>34</sup> Underemployment and overeducation have been examined by scholars in other fields, such as economics (e.g., McGoldrick & Robst, 1996). But as previously mentioned, these are related but ultimately distinct constructs from overqualification. Another stream of literature explores how *self-perceived* overqualification influences how employees act and perform at work (e.g., Johnson & Johnson, 2000), but far less is understood about how overqualification, as perceived by hiring managers, leads to different assumptions and outcomes, and how this varies by gender.

paper affirms the importance of incorporating gender into examinations of cues that contribute to perceptions of commitment. These findings can also help explain processes by which firms' hiring decisions can influence gender inequality in organizations and the broader labor market.

Notably, there has also been implicit divide in how the literature has discussed pre-hire perceptions of commitment: male candidates are typically discussed in terms of their perceived firm commitment (e.g., Galperin et al., 2020) and female candidates are typically discussed in terms of their perceived career commitment (Bielby & Bielby, 1984; Correll et al., 2007; Rivera & Tilcsik, 2016). This has led to an incomplete understanding of how these two types of commitment work together to inform hiring decisions about male and female job candidates. Across our studies, results showed that male candidates were evaluated on one dimension of commitment: their perceived commitment to the prospective firm. Male candidates' qualification level did not change the assumption that men are highly committed to their careers, nor did perceived career commitment ever explain men's hiring outcomes. This is consistent with prior work showing that career commitment is a particularly salient issue for women, but not men (Bielby & Bielby, 1984; Coltrane, 2004; Correll et al., 2007; Rivera & Tilcsik, 2016; Townsend, 2002).

However, overqualification influenced perceptions of female candidates' perceived firm and career commitment. This pattern of results suggests that, unlike men, women are evaluated along two different commitment dimensions (firm and career commitment). The implication is that female candidates must be seen as highly committed along two different types of commitment dimensions to be hired, but male candidates need only be seen as committed along one dimension of commitment. Prior work on the link between pre-hire perceptions of commitment and hiring outcomes suggests that reduced commitment in just one dimension is sufficient to reduce candidates' likelihood of receiving job offers (Correll et al., 2007; Galperin et al., 2020; Leung, 2014; Merluzzi & Phillips, 2016; Rivera & Tilcsik, 2016). This means that women may experience poor hiring outcomes if they fail to demonstrate their commitment to either their career or the prospective firm (i.e., demonstrating commitment in one dimension is necessary but not sufficient for women).

Differentiating between perceived firm and career commitment and understanding which type of commitment is most salient in evaluations are critical to understanding the different challenges men and women face in organizations and the labor market more broadly. For instance, if hiring managers weigh career commitment more heavily when evaluating female candidates and firm commitment more heavily when evaluating male candidates, equivalent candidates could experience different outcomes because of how their qualifications inform assumptions that hiring managers make about candidates' firm versus career commitment. Our findings suggest that possessing additional qualifications may be one path through which women can overcome the initial, biased assumptions made about their lower levels of career commitment (Correll et al., 2007; Rivera & Tilcsik, 2016). However, we acknowledge that this prescription is problematic because it would reinforce a system that already discounts women's qualifications.

Relatedly, one interpretation of our findings is that overqualified women are advantaged compared to overqualified men. In addition to the positive effect overqualification has on women's perceived career commitment, results showed that gender stereotypes about communality and assumptions about prior experiences with discrimination quelled concerns about overqualified women's commitment to the prospective firm. Overqualified male candidates, however, were subject to a penalty. The latter mechanism speaks to a nascent body of literature showing how awareness of gender discrimination can change how men and women are evaluated in the workplace. More specifically, preliminary empirical evidence demonstrates that highly tenured or high-ranking women are perceived to be exceptional compared to equivalently high-ranking men (Bohren et al., 2019; Botelho & Abraham, 2017; Campbell et al., 2020; Rosette & Tost, 2010). Growing awareness of the double standards that women must overcome to advance in their careers may prompt the audience to over-reward women who have advanced to the top, compared to equivalent men. This could explain why overqualification increased perceptions of women's firm commitment, even though we initially theorized that women would evade the overqualification penalty applied to perceptions of male candidates' firm commitment.

But this "advantage" effectively amounts to women having increased flexibility to move into positions that are *lower in rank* than their current roles. Our paper suggests that female candidates may need

to be overqualified to experience positive outcomes in the labor market. This is consistent with existing research on gendered double standards that hinder women's career advancement (Biernat & Fuegen, 2001; Biernat & Kobrynowicz, 1997; Foschi, 1996, 2009). Prior work in this area has focused on how discounting women's competence and skills slows their advancement up the organizational ladder. Our paper clarifies the link between women's qualifications, inferences about their commitment, and their hiring outcomes, suggesting that overqualification can improve women's labor market outcomes because it helps them overcome biased assumptions about their lower levels of career commitment. Moreover, possessing more qualifications than necessary does not spark suspicion for female candidates in the same way it does for male candidates. The implication is troubling: in order to succeed, women must not only do more to demonstrate their competence and skills, as Double Standards Theory suggests, but also be overqualified for jobs (which we argue is categorically different than being highly qualified).

Relatedly, we identify an additional and inadvertent way gender inequality is being reproduced in organizations. Suppose hiring managers prefer hiring female candidates who are overqualified and male candidates who are sufficiently qualified for the same positions. In that case, female employees will be systematically more qualified than their male peers employed to work in the same role. This would, in reality, reproduce gender inequality. This outcome occurred in spite of evidence that hiring managers had women's possible experiences with gender discrimination at the forefront of their minds during their evaluations (see Study 2 qualitative analysis and Study 3 results); this was one way that concerns about overqualified women's firm commitment was reduced. Inequality in hiring decisions is problematic, even if inadvertently introduced by well-intentioned people who seek to acknowledge women's experiences with discrimination.

### **Limitations, Boundary Conditions, and Future Directions**

Our work does leave some unanswered questions and identifies several directions for future research. One limitation to this paper is the exclusively demand-side perspective; we focus on biases that emerge in evaluations of male and female job candidates. Although beyond the scope of this paper, a supply-side perspective is equally important when examining the phenomenon of gender differences in

labor market outcomes. There is initial evidence that women may act according to the pattern we document when making decisions about job applications. Mohr (2014) found that women were more likely to apply for jobs when they held the vast majority, if not all, of the required qualifications listed in the job posting. However, men appeared more comfortable applying for jobs in which they met only a portion of the requirements (see also Campero & Fernandez, 2018; Fernandez & Campero, 2017; Wynn & Cornell, 2017 for evidence of similar effects). As argued by Mohr (2014), this effect was driven by the fact that women perceived the requirements listed on job postings to be actual requirements, while men were less likely to view them as necessities. If extrapolated, this suggests that women may already be more likely to possess more qualifications than the men applying for the same positions. This possibility underscores the need for future research to examine upstream selection effects and integrate them with downstream labor market evaluation processes.

We side-step potential selection issues with our predominately experimental approach, which is both a strength and a weakness of this paper. The major advantages of an experimental approach are the ability to avoid selection effects that are difficult to rule-out in field settings and the opportunity to dig deeper into the subconscious mechanisms driving the effects of interest. This advantage is one reason that experimental methods have grown in popularity in management research, even beyond micro disciplines; researchers in Strategy and Organizational Theory have also started employing experimental methods (e.g., Aven et al., 2018; Brands & Fernandez-Mateo, 2017; Di Stefano & Gutierrez, 2019; Hahl, 2016; Hahl & Zuckerman, 2014). Our predominately experimental approach intentionally prioritized internal validity to isolate the factors of interest and better understand their unique effects, which might be obscured by other factors in the field. This approach also allowed us to study something that can be difficult to observe in archival data: non-hires and the reasons for their rejection. These data are often limited because firms do not always make non-hire outcomes evident, nor do they readily provide the logic for their decision not to hire a job candidate. However, experimental work can be plagued by a lack of external validity. We attempt to address this weakness by using realistic stimuli (LinkedIn-like profiles), testing our effects using samples of individuals with hiring experience, and integrating supplemental qualitative evidence of hiring managers'

evaluations in their own words. However, future research might explore gender differences in how overqualification impacts hiring outcomes in the field and, specifically, how other features of job candidates that were designed out of our studies might coincide with job candidates who are also overqualified.<sup>35</sup>

An important boundary condition to acknowledge is our focus on hiring decisions regarding employed job candidates seeking a new job at a different firm. An intriguing question is whether the documented effects generalize to unemployed job candidates. How would assumptions about overqualified male and female candidates differ if these candidates were unemployed when applying? In times of challenging labor market conditions, unemployed individuals may be more willing to apply for jobs for which they are overqualified. Future work might explore how gender could exacerbate this issue, particularly in light of the aforementioned evidence of women's tendency to select into positions for which they are potentially overqualified (Campero & Fernandez, 2018; Fernandez & Campero, 2017; Mohr, 2014). It is also unclear how hiring managers' assumptions about overqualified male and female candidates would differ if candidates were currently unemployed. Would hiring managers be less concerned about flight risk among overqualified men if that candidate were currently unemployed (i.e., could be less likely to have alternatives)? How would assumptions about women's increased likelihood to temporarily opt-out of the labor force to prioritize family impact how overqualified, unemployed female job candidates are perceived? These are all interesting and important questions that we encourage future scholars to explore.

Another future direction is to investigate the degree of the candidate's overqualification. Our evidence suggests that the overqualification penalty (or lack thereof for women) is activated when hiring managers see the decision to apply for a given position as unusual, considering the candidate's current qualification level. Hiring managers make inferences to try to understand the candidate's motivations for

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<sup>35</sup> It is important to note that we intentionally restricted the amount of information available to hiring manager participants to only the resume provided in the experiment. This was a conscious choice to reduce confounds in the experimental design. While we argue that this is still a realistic hiring task because many hiring decisions are made in the absence of complete information about candidates, particularly in the context of internet-based job applications and search, we acknowledge the limits of this choice. An interesting future research question would be to consider how these effects would differ in referral-based hiring decisions where additional information about the candidate is available through network connections. It is possible that these connections could provide more information about the candidate and reduce hiring managers' need to make assumptions about candidates' commitment levels. But, we anticipate that this would also be subject to gender differences in light of existing evidence of structural differences in men's and women's social and professional networks (Brass, 1985; Ibarra, 1992, 1997; Lutter, 2015).

making this decision, which elicits concerns about commitment. We anticipate that these concerns would be amplified as the degree of overqualification increases, because it becomes increasingly non-normative to apply for positions that may be two, three, or even four ranks below the candidate's current position. An interesting empirical question would be to identify what the threshold is for overqualification; at what point are candidates labeled as overqualified rather than just perceived to be highly qualified for a given position? Prior work showing that women's skills are frequently discounted (Biernat & Kobrynowicz, 1997; Foschi, 2009), coupled with our evidence, suggests that this threshold may differ for female and male job candidates. Answering this question would not only be important theoretically, but it would also be of practical use for job candidates looking to craft their resumes in a way that makes them most likely to be selected.

Finally, future work might also consider how the job candidate's industry may moderate these effects. A methodological limitation of our paper was the choice to set the hiring in the context of the financial services industry (see Galperin et al., 2020 for validation of similar stimuli). This was an intentional choice for several reasons. A practical reason was that there are clear organizational levels and ranks in this industry that made it suitable for crafting cleanly overqualified and sufficiently qualified candidate profiles, which is crucial to examining this effect without confounding. Finance is also frequently characterized as a male-dominated industry where women are underrepresented in top-tier positions (Pew Research Center, 2015a; *The Data on Women Leaders*, 2018; Warner & Corley, 2017a), leading to gender biases in workplace treatment, evaluations, and hiring and promotion decisions (e.g., Heilman, 2001, 2012; Heilman et al., 2004; Heilman & Okimoto, 2007). These biases and the double standards women must overcome while advancing in these industries are also becoming increasingly well known (e.g., Boorstin, 2018; King et al., 2018). Put plainly, this is an industry that would benefit from identifying and remedying existing biases.

That being said, the candidate's industry may moderate the effects we documented, particularly if there are existing norms concerning expectations about employees' commitment. This is particularly relevant in light of evidence of gender differences in candidates' career choices regarding jobs and



industries (e.g., Barbulescu & Bidwell, 2013). Although prior work shows that career commitment concerns are salient when evaluating female candidates in several different industries (Bielby & Bielby, 1984; Correll et al., 2007; Rivera & Tilcsik, 2016), the expectations for candidates' degree of commitment to the prospective firm may vary. One could argue that the expected level commitment is quite high in prospective firms where the norm is to work long hours to contribute to the firm's performance (e.g., law and finance both fit this description). Therefore, candidates might need to have particularly high levels of perceived commitment to the prospective firm to be seen as worthy of the investment a firm makes when hiring and training employees. Alternatively, in industries where "job hopping" is more normative, it may be less reasonable to anticipate that hiring managers would be focused on reducing turnover. This is an important scope condition of our theory; we assume that hiring managers are seeking to reduce turnover because firms make an investment when they hire candidates. While it is possible that some firms may be less concerned with turnover, the investment that firms make in their employees suggests the vast majority of firms will be motivated to hire individuals they perceive as less likely to squander that investment. To that point, there is evidence that commitment concerns are relevant even in hiring decisions for temporary employment (Leung, 2014). Future research should focus on understanding whether the industry context changes how overqualification is interpreted for male and female candidates.

### **Conclusion**

This paper examines important gender differences in labor market outcomes. Combining experiments with supplemental qualitative evidence, we test how gender changes the way signals of job candidates' (over)qualification impact inferences that hiring managers make about candidates' commitment prior to hire. Four studies provide converging evidence that overqualification impacts men's and women's hiring outcomes differently depending on the type of commitment most salient to hiring managers in their decision-making process. Results suggested that male candidates' career commitment was taken for granted, and hiring managers instead focused on how men's additional qualifications signaled an increased risk that they would leave to follow more lucrative career opportunities at other firms (i.e., lower firm commitment). As a result, hiring managers were less inclined to hire overqualified male candidates. Hiring

managers were more preoccupied, stereotypically so, with female candidates' commitment to their career. Additional qualifications and experiences served to override initial assumptions about women's desire to prioritize their family over their career and, therefore, boosted overqualified women's likelihood of being hired. These findings highlight the importance of distinguishing between firm and career commitment and contribute to a growing body of research on the different challenges men and women face in the labor market.

**CHAPTER 2. From Exception to Exceptional: How Gender and Tenure Impact Sponsor  
Effectiveness<sup>36</sup>**

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<sup>36</sup> Research included in this chapter was conducted in collaboration with Rosalind Chow and Brandy Aven. Contact corresponding author: Elizabeth Campbell, 4765 Forbes Ave., Pittsburgh, PA 15213. Email: [ecampbell@cmu.edu](mailto:ecampbell@cmu.edu).

### **Abstract**

The important role that referrals play in the hiring process, particularly for those contending with negative stereotypes and biases, is well documented in the literature. However, how those stereotypes and biases impact the efficacy of sponsors providing the referrals is largely missing from prior work, overlooking additional effects that characteristics of the sponsor can have on the outcomes of the candidate receiving the referral. We take a multi-methods approach and provide evidence for differences in male and female sponsors' efficacy, such that while male sponsors are generally more effective, seniority increases female sponsors' effectiveness. Study 1 provides experimental evidence for a causal relationship between sponsor gender and sponsor tenure, such that greater tenure increases female sponsors' perceived credibility and this, in turn, increases female sponsors' effectiveness, although seniority does not improve male sponsors' effectiveness. Study 2 validates and extends these findings in archival data from the U.S. Supreme Court law clerkship hiring process and provides additional evidence that while candidates of male sponsors are associated with better outcomes in general, sponsor gender interacts with sponsor tenure to influence the probability of the candidate being selected for a top-tier position.

Firms often seek to reduce uncertainty in the hiring process by relying on information shared through social relationships, such as through referrals (Fernandez et al., 2000; Granovetter, 1995). Personal referrals are particularly important for female candidates, who contend with negative stereotypes and biases in the hiring process (similar effects are also documented for minorities; Elliott, 2001; Fernandez & Sosa, 2005; Kalev et al., 2006; Petersen et al., 2000; Rubineau & Fernandez, 2013). While prior research has focused almost exclusively on how stereotypes and biases affect perceptions of candidates in the eyes of those tasked with hiring (i.e., the audience) (see Rubineau & Fernandez, 2013 for similar point), the effects that characteristics of the individual providing the referral (i.e., the sponsor) can have on the candidate's outcomes has remained largely overlooked. As such, the resulting understanding of how the sponsor's gender might influence candidates' hiring outcomes remains incomplete. This begs the following question: does having a female sponsor disadvantage candidates? And, if so, how?

In line with prior evidence that gender stereotypes and biases negatively influence perceptions and evaluations of women in organizations (Heilman, 2012; Ridgeway, 2011), we contend that female sponsors will, generally, be less successful than male sponsors in terms of their candidates being hired because women will be viewed as less credible sponsors. However, increased seniority will attenuate these gendered effects, such that greater seniority will confer credibility to female sponsors and increase their effectiveness as sponsors overall. In contrast, seniority will not improve male sponsors' effectiveness. Underlying our argument for seniority is that when women are in a context where they are a numerical minority overall, the few women who achieve seniority in such settings are perceived to possess extraordinary capabilities and qualities. It is in this way that women, rather than being 'the exception' in a male-dominated environment, shift to being viewed as 'exceptional.' Recent field and experimental evidence substantiates our argument, finding that highly tenured or high-ranking women, particularly those working in stereotypically masculine roles or contexts, are perceived more positively than men of equally high tenure and rank (Bohren et al., 2019; Botelho & Abraham, 2017; Rosette & Tost, 2010). Accordingly, we argue that highly tenured female sponsors will be more effective than highly tenured male sponsors because their longevity confers credibility and signals exceptional quality, thereby amplifying the effectiveness of their

sponsorship. We anticipate that seniority is unlikely to influence male sponsors' effectiveness, however, because seniority does not provide substantive additional information about men, who are already assumed to be credible sponsors.

To examine how male and female sponsors differ in their effectiveness, we took a two-method approach combining experimental and archival data. Study 1 examines sponsor gender differences in the effectiveness of referrals in an experiment, providing the opportunity for causal identification and better understanding of a possible underlying mechanism. Experimental results showed that the sponsor's gender and perceived tenure interacted to impact perceptions of the sponsor's credibility and, in turn, the sponsor's effectiveness, such that seniority boosted the effectiveness of female sponsors' referrals but did not increase male sponsors' effectiveness. Study 2 validates these experimental findings in the field using archival data on referrals in the U.S. Supreme Court clerkship hiring process. U.S. Supreme Court clerkships are elite early career positions in the legal field, which remains male-dominated despite an abundant pool of female candidates. Importantly, success in the candidate's application process is highly contingent on having a strong recommendation from a judge. These characteristics make it an ideal context to study gender differences in the effectiveness of referrals provided by male and female judges. Within this context, we find complementary evidence to the results from Study 1, such that the sponsor's gender and tenure interact to impact the likelihood of a candidate securing a U.S. Supreme Court clerkship. This multi-methods approach provides the opportunity to examine sponsor gender differences in a naturalistic setting while also facilitating improved causal identification and understanding of mechanism.

This paper makes several important contributions. First, our focus on the dynamic between the sponsor and the audience, rather than the candidate and the audience, presents a relatively novel approach in the literature on referrals and answers the call for a more robust examination of how sponsor characteristics impact candidate outcomes in the referral process more generally (Rubineau & Fernandez, 2013; Yakubovich & Lup, 2006). Our findings demonstrate that gender and seniority interact to influence how effective male and female sponsors are in terms of securing positions and opportunities for their candidates. These effects are also independent of the gender of the individual being sponsored, suggesting

that a focus on the candidate without also considering the sponsor misses a significant factor that is integral to the hiring process. Second, our findings contribute to our understanding of how seniority may confer credibility to women, and, therefore, work to offset the negative effects of gender stereotypes and biases (Bohren et al., 2019; Botelho & Abraham, 2017; Rosette & Tost, 2010). To the extent that seniority confers credibility to female sponsors, these findings have important implications for organizations invested in increasing gender diversity within the firm. Finally, our multi-methods approach is part of a growing movement in management research that combines different research methods to replicate key findings as well as investigate the microfoundations of organizational phenomena.

### **Sponsor Credibility in the Referral Process**

Referrals, or hiring via social contacts and personal recommendations, have been shown to benefit both the firm and the job candidate within labor markets, making referrals commonplace in the hiring process (Granovetter, 1995; Marsden & Gorman, 2001). Referral-based hiring practices can increase the chance the firm will access a larger, higher quality pool of candidates that has already been prescreened by current employees, who themselves have already been determined to be qualified (Fernandez et al., 2000). Referred candidates are also more likely to be hired and, once hired, perform better as compared to candidates not hired via referrals (Fernandez et al., 2000; Granovetter, 1995; Merluzzi & Sterling, 2017). The underlying argument for these effects is that the audience perceives candidates who have been ‘vouched for’ by an insider (e.g., a current employee who provides the referral) as higher quality than those who have not. As such, the referrals literature has largely focused on candidates’ likelihood of receiving a referral. For example, a candidate’s race or gender is associated with likelihood of receiving referrals (e.g., Elliott, 2001; Reskin et al., 1999). Race and gender have also been shown to impact individuals’ performance and promotion potential once inside the firm (e.g., Castilla, 2005; Merluzzi & Sterling, 2017).

Implicit within this work is the assumption that referrals are invariantly effective for the candidate regardless of the characteristics of the sponsor providing that referral. That is, all candidates who have a referrer are then treated equally by the evaluators. This assumption is problematic; rather, evidence suggests that there is a subsequent stage in the evaluation process, such that conditional on having received a referral,

candidates are then judged on the basis of the characteristics of their sponsor. This idea is supported by a rich stream of research from organizational theory, which has proposed the idea that when faced with evaluating unknown others, such as candidates, audiences often judge quality by the prominence or status of the candidates' connections (Podolny, 2005; Stuart et al., 1999). According to this perspective, in the context of referrals, the audience uses characteristics of the sponsor as a way to judge the job candidate's quality. That the candidate has received a referral from a high-quality or successful sponsor is then interpreted as a signal of a high-quality candidate. The referrals literature, however, has focused predominately on how characteristics of the job candidate and whether receiving a referral is associated with hiring. Far less work has examined how the characteristics of sponsor providing referral affects the candidate's outcomes or the referral process more generally, above and beyond the candidate's characteristics (see Rubineau & Fernandez, 2013 for a similar point; but see Yakubovich & Lup, 2006 for a notable exception).

Here, we propose that the verification signal provided by the sponsor's referral is effective only to the extent that the audience evaluating the referral perceives the sponsor to be credible. That is, referrals would only increase the candidate's chance of being hired, compared to those without a referral, to the extent that the audience views the insider who vouched for the candidate's quality as credible and a good judge of quality. There is a growing body of research demonstrating similar signals can lead to different inferences by the audience, depending on the characteristics of the individual sending that signal. Thus, the same signal (i.e., the 'verification' the sponsor communicates for the candidate's quality in the referral) sent by sponsors with different characteristics may result in different outcomes. Gender has been studied as one such characteristic. For example, there is evidence showing the same qualification signals result in different outcomes for men and women in the labor market and organizations (e.g., Biernat & Fuegen, 2001; Rivera & Tilcsik, 2016), such that women are evaluated more negatively compared to equally qualified men. Following this, we contend stereotypes and biases that produce gender differences in perceived competence will similarly result in the audience viewing female sponsors as less credible referrers. If female sponsors are viewed as lacking credibility, then referrals made by female sponsors will



be less likely to be successful in terms of the candidate being hired, compared to those made by male sponsors. In the following section, we discuss prior research that provides reason to anticipate that sponsor gender will be a characteristic that significantly impacts the sponsor's perceived credibility, to the detriment of female sponsors' effectiveness.

### **Gender Stereotypes and Biases**

Substantial evidence from the field and the lab shows women, on average, are perceived more negatively and devalued compared to equally qualified men (see Heilman, 2012 for review). A prominent view is that gender is used as a status characteristic, such that widespread beliefs about men's greater social worth and increased competence results in women being broadly perceived as less capable and competent than men (Ridgeway, 2011). These effects permeate several different evaluation processes, such that women are generally disadvantaged compared to equivalent men in allocation of resources, rewards, hiring, and promotions (e.g., Correll et al., 2007; Heilman & Haynes, 2005; Sarsons, 2017). In addition, the incongruence between societal expectations for women's behavior and characteristics and those of the 'ideal worker' fosters prejudice against women in the workplace (Eagly & Karau, 2002). Women engaging in stereotypically masculine, and therefore counter-normative, behavior are seen as unlikable and cold, which negatively impacts important outcomes in their careers (e.g., Bowles et al., 2007; Lyness & Heilman, 2006; Rudman et al., 2012).

Negative stereotypes and biases are particularly pronounced for women in leadership positions and those working in male-dominated contexts. In this work, the central argument underlying why gender gaps occur is that the incongruence between stereotypically feminine behavior and expectations for leaders results in female leaders being viewed more negatively than equivalent male leaders (Eagly & Karau, 2002; Lyness & Heilman, 2006). This "lack of fit" then results in a variety of effects that negatively impact women; 'token' women working in male-dominated environments are likely to be stereotyped as both less competent and less capable, such that the well-documented negative effects of gender stereotypes and biases

become amplified in these contexts (Kanter, 1977; Yoder, 1991).<sup>37</sup> Women are, therefore, ‘exceptions’ both in numerical representation and in perceived quality.

These perceptions have implications for sponsor effectiveness. For instance, if women are stereotyped to be less competent than men, this could translate to female sponsors being viewed as less credible. Biases against women’s qualifications for, and ability to succeed in, leadership roles would negatively impact the audience’s trust in female sponsors’ ability to accurately identify these same qualities in others, making their referral less effective in reducing uncertainty about the quality of their candidates. In turn, the audience will be less inclined to hire the candidates of female sponsors, compared to those of male sponsors. We anticipate this will be particularly true for female sponsors working in male-dominated environments and masculine-stereotyped roles, where women’s status as ‘exceptions’ is particularly salient to the audience. In contrast, gender stereotypes produce relatively less doubt about men’s competence and leadership ability, and, as such, male sponsors vouching for their candidates will be more effective at reducing uncertainty about the quality of their candidates compared to female sponsors.

### **Gender and Seniority**

Despite the general finding that men are advantaged to women in regard to perceived competence, new empirical evidence suggests that there are certain conditions under which traditional gender biases reverse to advantage women, such that high-ranking or highly tenured women are perceived more positively than equally qualified men. This effect has variously been termed the “qualified female leader advantage” or the “double competence boost” (Bohren et al., 2019; Botelho & Abraham, 2017; Eagly, 2007; Hill et al., 2015; Rosette & Tost, 2010). For instance, Bohtelo and Abraham (2017) found evidence of bias in the recommendations provided by female financial investment professionals, compared to men, but that this gender bias was eliminated for women whose performance was ranked in the top decile. In other words, once a certain accomplishment threshold was met, top-performing women are no longer penalized.

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<sup>37</sup> Importantly, the negative effects of tokenism status are only true for those belonging to the numerical minority and low status groups (Yoder, 1991). Token men actually experience benefits when working in female-dominated environments (Folger & Merrill, 1985; Hultin, 2003; Williams, 1992), suggesting men are unlikely to be impacted when working in roles where they are in the numerical minority.

Similarly, Bohren and colleagues (2019) conducted a field experiment on an online statistics platform (Stats Stack Exchange), where research assistants provided equivalent responses for ‘users’ that were randomly assigned male or female names. Contributions made by women were typically devalued by platform users compared to equivalent contributions made by men. However, tenure on the platform attenuated this effect; women with extensive histories of contributions on the platform received more positive ratings than equivalent contributions made by highly tenured men. Both of the aforementioned studies examined gender bias in settings where women are in the numerical minority and largely perceived to be ‘the exception,’ suggesting evidence that reversals of gender bias with female seniority are most likely to occur in such contexts. Put differently, while women are disadvantaged by stereotyping processes when they are lower in rank and less tenured, compared to men, evidence indicates this disadvantage disappears and women may even be advantaged over men when comparing highly tenured or high-ranking men and women.

These effects appear to be driven by an underlying understanding among members of the audience that women are more likely to have faced and overcome double standards in evaluations when advancing in their careers, as compared to equivalent top male managers. The assumption that top female managers have faced double standards, in turn, predict higher leadership ratings for top female managers, compared to top male managers (Rosette & Tost, 2010). The logic here is that if people believe women have overcome several rounds of quality filters that repeatedly held them to higher standards than their male counterparts, their seniority is a strong signal of their exceptional competence and capability. This is especially true for women working in male-dominated environments, in which women are viewed as exceptions, but their ability to persist and/or succeed under such conditions denotes exceptionalism. Hence, we predict greater seniority should confer credibility to female sponsors and consequently improve their effectiveness as sponsors. In contrast, we anticipate that increased tenure is unlikely to influence the perceived credibility and effectiveness of male sponsors because there is relatively less uncertainty about men’s competence and, in turn, their ability to identify high quality candidates in the first place.<sup>38</sup> Taken together, we theorize that,

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<sup>38</sup> This is not to say that we do not anticipate the gender of the candidate to be completely irrelevant to sponsorship effectiveness, only that there are under-explored effects of sponsor gender that have not been fully documented yet.

in general, male sponsors will be perceived as more credible, and will therefore be more effective sponsors as a result, compared to female sponsors; this creates a gender gap in sponsor effectiveness where female sponsors are at a disadvantage. We anticipate that tenure will change this effect, however, such that male sponsors' advantage will be eliminated when sponsors are highly tenured because increased tenure will confer credibility to female sponsors. Notably, the credibility of male sponsors will not benefit from increased tenure, because their credibility will not have been questioned to the same degree as female sponsors at lower levels of tenure. Taken together, then, we anticipate highly tenured female sponsors will be more effective compared to highly tenured male sponsors, effectively creating a reversal in the gender gap in sponsor effectiveness to favor female sponsors.

### **Overview of Methods**

We investigate the relationship between sponsor gender and sponsor effectiveness using two complementary methods. In Study 1, we conduct an experiment that provides clear evidence for a causal effect of sponsor gender and tenure on the sponsor's effectiveness, and suggests a mechanism driving the observed sponsor gender differences: the perceived credibility of the sponsor. Experiments have the key advantages of controlling for potential confounds frequently present in the field, such as access to job opportunities and sponsor characteristics, as well as differences in how referrals are provided (e.g., gender differences in style and persuasiveness). Experiments also allows one to isolate important causal effects and explore underlying mechanisms. Nonetheless, while Study 1 provided causal evidence for our arguments, we sought to validate these findings in the field. In Study 2, we explore archival data on the U.S. Supreme Court law clerk hiring process, which is well-suited to test for differences in sponsors' effectiveness. This second study examines how the probability of candidates (prospective Supreme Court clerks) securing top-tier positions varies as a function of the sponsor's (referring D.C. Circuit judge) gender and tenure in a male-dominated context. Together, these two studies provide robust evidence for sponsor

gender differences and the contingent effects of seniority on sponsor effectiveness in a naturalistic setting, while also facilitating improved causal identification and greater insights into mechanism.<sup>39</sup>

### Study 1

Understanding the effects of gender and sponsorship in the field presents the challenges of identifying an appropriate context while accounting for an array of potential confounds. In light of this and our interest in the underlying mechanism, we sought to first test our argument in an experiment. As previously mentioned, an experimental framework provides the advantage of holding constant many characteristics that vary naturally in the field, such as access to referrals and gender differences in sponsors' approach to providing recommendations. This eliminates any potential differences that may exist in candidates' ability to access referrals (i.e., all sponsors provide a referral to a candidate) and that may exist between male and female sponsors' approaches to recommendations. As an example, there could be natural differences in how male and female sponsors word their referrals and write recommendation letters that could produce differences in the likelihood of their candidates being selected. Using an experiment also provides the opportunity to examine underlying mechanisms for any effects that we find. In our theory, we postulated that the perceived credibility of the sponsor may be one mechanism that helps explain sponsor gender differences in sponsor effectiveness. In sum, the use of an experiment allows us to test, holding all else constant, whether sponsor gender has an effect on referral effectiveness and a potential mechanism that ultimately explains these differences.

In the study, participants listened to an audio recording of a sponsor referring a candidate to (i.e., pitching an individual to be considered for) a job opportunity and then indicated their perceptions of the sponsor, the candidate, and the effectiveness of the sponsorship (i.e., if they would hire the candidate). The study used the context of academe because evidence indicates that despite recent gains in some disciplines, women and minorities are underrepresented in most top-tier positions in academe (e.g., tenured/full professors, deans, etc.) (Abdullina, 2008; Moss-Racusin et al., 2012; Price, 2009; Warner & Corley, 2017a).

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<sup>39</sup> Please see Appendix B for supplementary analyses and an additional study that helps rule out alternative explanations.

In addition, despite some gains in gender equality in some fields, top positions in research and science are still viewed as stereotypically male occupations (e.g., Carli et al., 2016). Thus, high-ranking and highly tenured women in academe are less common compared to high-ranking and highly tenured men, meaning female sponsors would be perceived to be ‘an exception’ in similar ways that we have theorized. Finally, while sponsor gender is the chief focus of this paper, we also manipulated the gender of the candidate in order to counterbalance male and female sponsor conditions across candidate gender. Thus, Study 1 uses a 2 (sponsor gender: male, female) x 2 (candidate gender: male, female) between-subjects experimental design.<sup>40</sup>

### Sample

Participants were 427 U.S. citizens who self-identified as being employed full-time (52.5% male, 72.1% White/Caucasian, age  $m=36.9$  years) on TurkPrime panel data services (Berinsky et al., 2012a; Buhrmester et al., 2011a; Litman et al., 2017a).<sup>41</sup> Participants were paid \$0.50 for their participation and the study was advertised as 5-7 minutes in duration.

### Experimental Procedure and Manipulations

Upon consent, participants were told the study concerned impressions of career support and that, for the purpose of this study, they would be taking on the role of a professor at a university who is looking to hire a full-time research assistant (RA) and were provided with their role information (see study materials and stimuli for more details). They were instructed that to aid in their search, they (the professor) had sent out an email to a couple of their colleagues asking for recommendations of qualified RA candidates. In response to this email, one of their colleagues called them back and left a voicemail message for them. In

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<sup>40</sup> The study was preregistered with AsPredicted.org (#18194). The pre-registered study design was based off of a pilot study (details not available here for brevity but are available upon request).

<sup>41</sup> Models reported here did not include the participant’s gender. To ensure results were robust, we conducted additional analyses which showed all effects held after including *Male Participant* in the models. Results also showed no *Male Participant* x *Male Sponsor* x *Perceived Sponsor Tenure* three-way interactions on *Perceived Sponsor Credibility* ( $p=.232$ ) or *Sponsor Called Back* ( $p=.245$ ), which are our main outcomes of interest.

this message, the colleague recommends an individual for the open RA position. Prior to listening to the voicemail recording, participants responded to an attention check question.<sup>42</sup>

Participants were randomly assigned to 1 of 4 conditions (representing a random combination of sponsor gender and candidate gender), which involved listening to an audio recording (i.e., the voicemail message) of their colleague (the sponsor in this context) recommending an individual (the candidate in this context) for the open RA position. Participants responded to a second attention check question following the voicemail message recording. This was followed by additional survey items measuring perceptions of the sponsor and the candidate. Finally, to measure the effectiveness of the sponsorship, participants were asked to indicate if they would call the sponsor back to hire the candidate or wait for additional recommendations to come in before making a final hiring decision. Participants finished by self-reporting basic demographic information.

**Role materials and stimuli.** Role materials included a description of the participant's role as a professor, instructions regarding the decision to hire the RA, and information about an RA's typical job responsibilities, qualifications, and what characteristics typically make for a good RA. The voicemail message participants listened to were 40-50 seconds in duration (see Appendix B for transcript). We used audio, instead of written, stimuli because audio stimuli both enhances the external validity of the experiment, by more closely approximating how sponsorship can naturally occur in the workplace (i.e., in conversations between individuals), and audio stimuli has been shown to be superior when testing gender-focused research questions. Prior experimental work has found participants process more communication cues with audio and/or video stimuli because it enhances the salience of relevant communicator-related characteristics and information (Bowles & Babcock, 2013; Chaiken & Eagly, 1983). The use of the same

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<sup>42</sup> There were two attention check questions included in this experiment. The first followed the study instructions (correct answer italicized): "Please indicate if the following statement is true or false: The position you are interested in filling is a restaurant manager position" (True/False). Participants who responded incorrectly were forced to review the study instructions again before proceeding with the study. The second attention check item following the audio stimuli (correct answer italicized): "Please indicate which statement about the voicemail message is true: 1) *(Sponsor name) has been working with (candidate name) for about two years*, or 2) *(Sponsor name) has been working with (candidate name) for less than a month.*" Participants who responded incorrectly were forced to review the study stimuli again before proceeding with the study. A small number of individuals responded incorrectly to both questions and were excluded from analyses ( $n=23$  excluded, leaving final sample of  $n=427$ ). Results do not substantively differ with the inclusion of these participants.

voicemail script across sponsor genders also holds the nature of the referral constant, something that could naturally differ in the field, allowing us to test for differences in perceptions of male and female sponsors engaging in the same exact type of referral behavior.

**Gender manipulation.** To produce the audio recordings and manipulate sponsor gender, 2 male and 2 female actors recorded the voicemail messages. Each actor made recordings for both candidate genders (i.e., a male actor made male sponsor/male candidate recording and a male sponsor/female candidate recording, same with female actors). All actors were trained prior to making the recording to reduce differences in tone, cadence, pace, etc. All recordings made by the actors were counterbalanced across the study design. Sponsor gender was, therefore, manipulated using male and female actors' voices and by having the actors introduce themselves on the voicemail message using a stereotypically masculine or feminine first name. The sponsor also referred to the candidate using a stereotypically masculine or feminine first name and corresponding pronouns, thereby also manipulating candidate gender.

### Measures and Variables

The main predictor variables were sponsor gender and perceived sponsor tenure. Considering our theorizing, we interacted *Male Sponsor* and *Perceived Sponsor Tenure* to examine how tenure differentially impacted male versus female sponsors' effectiveness. To explore the mechanism, we measured trust in the sponsor's judgment and ability to evaluate the candidate's readiness for advancement, both of which could contribute to perceptions of the sponsor's credibility.

**Male sponsor.** An indicator variable was created based on condition ( $1=Male$ ,  $0=Female$ ).

**Perceived sponsor tenure.** Participants responded to the following items measuring perceptions of the sponsor's tenure, which captured aspects of perceived status and experience working in the field: "How long do you think this faculty member has been a professor?" (1=A very short amount of time, 5=A very long amount of time); "How well-regarded do you think this faculty member is in this profession?" (1=Not at all well-regarded, 5=Extremely well-regarded); "How experienced or inexperienced is this faculty member in working with undergraduate research assistants?" (1=No experience, 5=A lot of experience). A factor analysis was conducted to confirm that all three items loaded onto a single factor and



then a composite variable was created using the standardized z-scores for each item ( $\alpha=.784$ ).<sup>43</sup> In addition, to ensure that our manipulations did not affect our moderator, we conducted a sponsor gender x candidate gender ANOVA on *Perceived Sponsor Tenure*. Results showed no significant main effects (sponsor gender,  $p=.965$ ; candidate gender,  $p=.173$ ) and no interaction ( $p=.206$ ).

The choice to measure perceptions of the sponsor's tenure instead of manipulating it was a conscious one. As discussed in the introduction of this paper, there is a large body of research showing there are different expectations for tenure for men and women; people generally expect women to be less senior and lower status than men (Heilman, 2012; Ridgeway, 2011). Measuring perceptions of male and female sponsors' tenure allows tenure to be emergent and endogenous, therefore more closely approximating how these perceptions form naturally in the field. A second, and perhaps more practical reason, is that we did not know what would constitute appropriate cut-offs for tenure conditions. That is, to appropriately manipulate tenure, we would need to designate a "high tenure" and a "low tenure" condition, but there is no prior work that establishes where those lines are drawn. For these reasons, we did not directly manipulate perceived tenure and instead measured it.

**Male candidate.** An indicator variable was created based on condition ( $1=Male$ ,  $0=Female$ ).

**Perceived sponsor credibility.** To measure our proposed mediator, participants responded to items measuring trust in the sponsor's evaluation of the candidate and the sponsor's judgment, both of which inform perceptions of the sponsor's credibility: "How accurate is the faculty member's judgment of their student's competence?" (1=Not at all accurate, 5=Extremely accurate); "How comfortable are you relying on this faculty member's judgment of their student's potential?" (1=Not at all comfortable, 5=Extremely comfortable); "To what extent do you believe this faculty member is a good evaluator of potential research assistants?" (1=Not at all good evaluator, 5=Extremely good evaluator). A factor analysis was conducted

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<sup>43</sup> To ensure combining these items into a composite was appropriate, we conducted a factor analysis (principle factor, oblique rotation, which allows correlation between items). Results showed 1 factor naturally emerged from the data and each item loaded onto that factor above the generally accepted cut-off of 0.6: "How long do you think this faculty member has been a professor" ( $loading = .708$ ); "How well-regarded do you think this faculty member is in this profession?" ( $loading = .749$ ); "How experienced or unexperienced is this faculty member in working with undergraduate research assistants?" ( $loading = .658$ ).

to confirm that all three items loaded onto a single factor and then a composite variable was created using the standardized z-scores for each item ( $\alpha=.864$ ).<sup>44</sup>

**Perceived candidate quality.** A compelling alternative explanation is people perceive the individuals with whom male and female sponsors work to vary systematically in their competence. That is, for example, people might expect male sponsors to have access to higher quality candidates than female sponsors. To test this possibility, we also included measures of perceptions of the candidate's quality. Participants rated the candidate along several dimensions, all of which were drawn from actual metrics used in doctoral student candidate evaluations at the authors' institution: "Based on the recommendation provided, how do you think this student ranks, compared to all other potential research assistant applicants?" (1=Top 5% Outstanding, 2=Top 15% Superior, 3=Top 1/3<sup>rd</sup> Above Average, 4=Mid 1/3<sup>rd</sup> Average, 5=Lower 1/3<sup>rd</sup> Below Average, 6=Insufficient information). The dimensions included intellectual ability, maturity, initiative and motivation, creativity and readiness to innovate, ability to work independently without close supervision, oral communication skills, clarity of goals of future career, and overall potential as a research assistant. The scale was first reverse coded for ease of interpretation; larger values indicate higher perceived quality. Standardized scores were used to create a composite ( $\alpha=.924$ ).<sup>45</sup>

**Sponsor called back.** To measure the effectiveness of the sponsor's recommendation, which is our outcome variable of interest, participants were asked to make a choice about whether to call the sponsor back to hire the candidate or wait for more recommendations to come in before making a final hiring decision. Participants were instructed that they had received a follow-up email from the sponsor: "Upon listening to the voicemail from (sponsor name), you then receive an email from him/her. S/he writes: 'To

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<sup>44</sup> To ensure that *Perceived Sponsor Credibility* and *Perceived Sponsor Tenure* were distinct variables, a factor analysis was conducted (principal component, oblique rotation to account for correlation between items). Results showed that two factors emerged consistent with these two variables: Factor 1 included the three items measuring sponsor credibility: accuracy of judgment (*loading* = .789), reliability of judgment (*loading* = .758), and good evaluator (*loading* = .833). Factor 2 included the three items measuring perceptions of sponsor tenure: perceptions of tenure in the field (*loading* = .778), regard (*loading* = .671), and experience working with other research assistants (*loading* = .562).

<sup>45</sup> Although not hypothesized, we also examined gender effects on perceptions of the candidate's quality. A sponsor gender x candidate gender ANOVA on *Perceived Candidate Quality* showed non-significant main effects of sponsor gender ( $p=.878$ ) and no interaction ( $p=.890$ ). There was a marginally significant main effect of candidate gender ( $F(1,423)=2.920$ ,  $p=.088$ ), such that female candidates were perceived to be marginally higher quality ( $m=.064$ ) compared to male candidate ( $m=-.066$ ).

follow-up on the message I left you about (candidate name) – I just heard s/he’s applied to a few other RA positions and I think s/he’s likely to get hired by another professor soon. If you want (candidate name) as your RA, let me know as soon as you can because I don’t think s/he will be available for very long.” The participant was then asked to make a decision: either 1) “call (sponsor name) back now to hire (candidate name)” or 2) “wait for additional recommendations to come in before making a final hiring decision” (presentation of choices randomized). An indicator variable was created ( $1 = \text{Called back now}$ ,  $0 = \text{Wait for additional recommendations}$ ).

## Results

Descriptive statistics are reported in Table 2.1. We tested the effect of sponsor gender and perceived tenure on perceived sponsor credibility and on the likelihood that the sponsor was called back, and the candidate hired. We conducted mediation analyses to test if perceived sponsor credibility explained the different effect perceived tenure had on male and female sponsors’ likelihood of being called back.

**Perceived sponsor credibility.** We estimated an OLS regression with *Perceived Sponsor Credibility* as the outcome variable (see Table 2.2). In line with prior research, we ran models that included a *Male Sponsor* x *Perceived Sponsor Tenure* x *Male Candidate* three-way interaction term to determine if the candidate’s gender moderated our hypothesized interactive effect between the sponsor’s gender and the sponsor’s perceived tenure, but the three-way interaction was non-significant (Model 4,  $p = .695$ ). Model 1 showed there was no main effect of *Male Sponsor* ( $p = .290$ ) or of *Male Candidate* ( $p = .943$ ), but there was a positive main effect of *Perceived Sponsor Tenure* ( $\beta = .584$ ,  $p < .001$ ), indicating that sponsors who were perceived as more tenured were viewed as more credible. Model 2 introduced the *Male Sponsor* x *Perceived Sponsor Tenure* two-way interaction term and showed a significant and negative interaction ( $\beta = -.295$ ,  $p = .001$ ), suggesting the gender of the sponsor affected how the perceived tenure of the sponsor was related to levels of perceived sponsor credibility (see Figure 2.1). A simple slope analysis showed that for both male and female sponsors, increased perceived tenure led to higher levels of perceived credibility (both slopes significant and positive, see Figure 1). However, female sponsors saw larger gains in credibility with increased perceived tenure compared to male sponsors (i.e., a significantly steeper slope for female

sponsors; see Table 2.3). This interaction remained significant even after accounting for perceptions of the candidate's quality (Model 3:  $\beta = -.331, p < .001$ ).

**Sponsor effectiveness.** We estimated a linear probability model (LPM) with *Called Back* as the outcome variable. We chose to estimate an LPM because our primary interest is in the interactive effect of the sponsor's gender and tenure on the sponsor's probability of being called back and the candidate hired. LPM is preferred when interpreting interactive effects because it produces coefficients that are easier to interpret than those produced by logit models (see Brands & Fernandez-Mateo, 2017; Sorenson & Waguespack, 2006 for similar procedures). Given LPM imposes heteroskedasticity on the errors, we use robust estimates of the standard errors (Angrist & Pischke, 2009). LPM can also generate predicted values outside of the 0-1 interval; however, this is not a major concern if the goal is to simply estimate an independent variable's marginal effect averaged across the distribution (see Brands & Fernandez-Mateo, 2017 for a similar argument; Wooldridge, 2003). Nonetheless, we also estimated a logit model with robust standard errors. Results were consistent with the LPM (see Appendix B for details).

We included *Male Sponsor* and *Perceived Sponsor Tenure* as the main predictors and *Male Candidate* as a covariate (see Table 2.4). In line with prior research, we also ran models that included a three-way interaction with the candidate's gender, but this was non-significant (Model 6,  $p = .273$ ). Model 1 showed no significant main effects of *Male Sponsor* ( $p = .289$ ) or *Male Candidate* ( $p = .457$ ). There was, however, a positive main effect of *Perceived Sponsor Tenure* ( $\beta = .127, p < .001$ ), indicating that higher levels of perceived tenure predicted increased likelihood of being called back. Model 2 showed there was no *Male Sponsor* x *Perceived Sponsor Tenure* two-way interaction ( $p = .982$ ). Model 3 introduced *Perceived Sponsor Credibility* as a potential mediator and showed inclusion of this variable reduced the previously significant and positive main effect of *Perceived Sponsor Tenure* to marginal significance ( $\beta = .057, p = .092$ ). This finding provides initial evidence that perceptions of the sponsor's credibility explain part of the relationship between perceived sponsor tenure and sponsor effectiveness. *Perceived Sponsor Credibility* also positively predicted *Called Back* ( $\beta = .095, p < .001$ ), indicating that the more credible sponsors were

perceived, the more likely they were to be called back. Models 4-5 introduced *Perceived Candidate Quality* to test for the alternative possibility that any effects of sponsor gender are driven by perceived candidate quality, but inclusion of this variable did not change the results. Thus, there is preliminary evidence that perceptions of the candidate do not account for the effect of the sponsor's perceived tenure on the sponsor's effectiveness.

**Mediation analysis.** Despite not finding a significant interactive direct effect of sponsor gender and perceived sponsor tenure on whether the sponsor was called back, we continued to test for the possibility of mediation. We initially theorized that while female sponsors would be disadvantaged compared to male sponsors at lower levels of tenure, this gender gap would be eliminated and potentially even reverse at higher levels of perceived tenure. This would create both a positive and a negative indirect effect of the sponsor's gender on the sponsor's effectiveness at different levels of the sponsor's perceived tenure. These countervailing indirect effects would work against each other to suppress the overall direct effect of the sponsor's gender on the sponsor's effectiveness, explaining why we did not observe any significant direct effects.

We followed Preacher and Hayes' process of estimating confidence intervals with 5,000 bootstrapped samples using the PROCESS macro in SPSS (Preacher et al., 2007; Preacher & Hayes, 2004). We estimated a moderated mediation model with *Male Sponsor* as the main predictor, *Perceived Sponsor Credibility* as the mediator, and *Called Back* as the outcome variable (*Male Sponsor* x *Perceived Sponsor Tenure* → *Perceived Sponsor Credibility* → *Called Back*). The first path was moderated by *Perceived Sponsor Tenure*. *Male Candidate* was included as a covariate.<sup>46</sup> This model allowed us to examine if the effect of the sponsor's gender on the sponsor's effectiveness was mediated by perceptions of the sponsor's

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<sup>46</sup> We also conducted a moderated mediation model that included *Male Candidate* as an additional moderator to account for the possibility of a three-way interaction in the moderated mediation model. While we did not observe any evidence of a *Male Sponsor* x *Perceived Sponsor Tenure* x *Male Candidate* three-way interactive effects in the prior analyses, we ran this model to be comprehensive. The model included the following: *Male Sponsor* x *Male Candidate* x *Perceived Sponsor Tenure* → *Perceived Sponsor Credibility* → *Called Back*. Results showed the overall Index of Moderated Mediation was not significant for *Male Candidate* (95% CI: {-0.238, .242}) but was for *Perceived Sponsor Tenure* ( $b = -.247$ ,  $SE = .091$ , 95% CI: {-0.422, -.080}), which is consistent with the moderated mediation model reported above.

credibility, and how this mediation relationship differed across different levels of the sponsor's perceived tenure.

Results showed the Index of Moderated Mediation was significant ( $\beta = -.246$ ,  $SE = .094$ , 95% CI:  $\{-.450, -.082\}$ ) and that there were two indirect effects at two levels of the moderator, but in opposite directions (see Table 2.5 & Figure 2.2). First, we observed a positive indirect effect of *Male Sponsor* on *Called Back* via *Perceived Sponsor Credibility* when *Perceived Sponsor Tenure* was 1 standard deviation below the mean ( $\beta = .290$ ,  $SE = .121$ , 95% CI:  $\{.072, .538\}$ ). This finding indicates that when sponsors were perceived to be below average in tenure, male sponsors were perceived as more credible and this boosted their likelihood of being called back, compared to female sponsors also perceived as below average in tenure. There was also a negative indirect effect of *Male Sponsor* on *Called Back* via *Perceived Sponsor Credibility* when *Perceived Sponsor Tenure* was 1 standard deviation above the mean ( $\beta = -.153$ ,  $SE = .083$ , 95% CI:  $\{-.337, -.004\}$ ), showing when sponsors were perceived to be above average in tenure, female sponsors were perceived to be more credible and this increased their likelihood of being called back, compared to male sponsors who were also viewed as above average in tenure. These effects are consistent with the possibility that countervailing indirect effects that occurred at different levels of the moderator suppressed the overall direct effect of sponsor gender on if the sponsor was called back, likely explaining why we did not observe gender differences in prior analyses. In sum, at low levels of perceived tenure, there is a gender gap in the effectiveness of sponsors such that male sponsors are perceived to be more credible and are, as a result, more effective than female sponsors. However, this gender gap reversed at high levels of perceived tenure: highly tenured male sponsors were perceived to be less credible, and therefore, less effective, compared to highly tenured female sponsors. This supports our initial theorizing that increased tenure would confer credibility to female sponsors and boost their effectiveness, but not male sponsors.

**Secondary mediation analyses.** The above moderated mediation analysis facilitated cross-gender comparisons within certain levels of the sponsor's perceived tenure (i.e., low tenured male v. low tenured

female sponsors or high tenured male v. high tenured female sponsors). However, an additional implication of our theorizing is that because tenure confers credibility only to female sponsors, we should also observe within sponsor gender differences, such that less tenured female sponsors will be perceived as less credible and less effective as a result, compared to highly tenured female sponsors. To examine this possibility, we conducted a second moderated mediation analysis using the PROCESS macro in SPSS, but with different specifications that allowed for within-gender comparisons. *Perceived Sponsor Tenure* was entered as the main predictor, *Perceived Sponsor Credibility* as the mediator, and *Called Back* as the outcome variable. *Male Sponsor* was set as the moderator for the first path of the model and *Male Candidate* was included as a covariate. This specification allowed us to test if the effect of *Perceived Sponsor Tenure* on *Called Back* was mediated by *Perceived Sponsor Credibility* for male sponsors only and for female sponsors only.

Results showed that the overall Index of Moderated Mediation was significant ( $\beta = -.176$ ,  $SE = .077$ , 95% CI:  $\{-.344, -.042\}$ ). The Table of Indirect Effects showed a positive indirect effect for both male sponsors ( $\beta = .254$ ,  $SE = .089$ , 95% CI:  $\{.100, .452\}$ ) and for female sponsors ( $\beta = .428$ ,  $SE = .134$ , 95% CI:  $\{.179, .703\}$ ), indicating that for both male and female sponsors, the greater the tenure, the more credible sponsors were perceived to be, which then impacted the likelihood of their being called back. However, the effect appeared slightly stronger for female sponsors (see Figure 2.3). These results mirror what we observed in the primary analyses reported above; there, increased tenure was also associated with increased perceived credibility for both male and female sponsors. However, we also observed that female sponsors saw larger gains in their perceived credibility per each unit increase in perceived tenure. Findings from this second path analysis, therefore, partially support our theorizing. That is, consistent with our predictions, female sponsors experienced larger gains in perceived credibility and sponsor effectiveness due to increased tenure. However, counter to our expectations, tenure also boosted male sponsors' perceived credibility and effectiveness.

### **Robustness Checks and Alternative Explanations**

**Candidate quality explanation.** Our theorizing and results have focused chiefly on the impact that sponsor gender can have on sponsorship effectiveness. Our argument has been that the recommendations of female sponsors are seen as less credible than those of male sponsors, thereby negatively impacting their effectiveness. However, an alternative possibility is the audience assumes female sponsors are more willing to advocate for lower quality candidates or only have access to lower quality candidates, as compared to male sponsors. These effects could further be changed by the sponsor's perceived tenure, such that perhaps while the above is true for female sponsors who are perceived to be below average in tenure, highly tenured female sponsors may be perceived to have access to higher quality candidates or are only willing to advocate for high-quality candidates. In both of these cases, however, the effects of the sponsor's gender and tenure on the sponsor's effectiveness would be explained by perceptions of the candidate, and not necessarily by perceptions of the sponsor. While there was no evidence of this in our analyses, a more direct test of this hypothesis is to conduct an additional path analysis, in which the perceived quality of the recommended candidate serves as the mediator. We therefore estimated a moderated mediation model with *Male Sponsor* as the main predictor, *Perceived Candidate Quality* as the mediator, and *Called Back* as the outcome variable (*Male Sponsor* x *Perceived Sponsor Tenure* → *Perceived Candidate Quality* → *Called Back*). The first path was moderated by *Perceived Sponsor Tenure* and *Male Candidate* was included as a covariate. The Index of Moderated Mediation was not significant (95% CI: {-0.052, .244}), indicating the effect is not explained by *Perceived Candidate Quality*.<sup>47</sup>

It is also possible that while *Perceived Candidate Quality* does not act as the sole mediator, but still informed perceptions of the sponsor's credibility; this would equate to a serial mediation model. To test for this possibility, we estimated a moderated serial mediation model with *Male Sponsor* as the main predictor, *Perceived Candidate Quality* as the first mediator and *Perceived Sponsor Credibility* as the second mediator and *Called Back* as the outcome variable (*Male Sponsor* x *Perceived Sponsor Tenure* → *Perceived Candidate Quality* → *Perceived Sponsor Credibility* → *Called Back*). The first path was moderated by

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<sup>47</sup> We conducted several additional path analyses to account for alternative possibilities, but all other models were non-significant. For brevity, these models are not discussed here but details are available in Appendix A.



*Perceived Sponsor Tenure* and *Male Candidate* was included as a covariate. The Index of Moderated Serial Mediation was not significant (95% CI:  $\{-.020, .099\}$ ), indicating that perceptions of the candidate's quality do not inform perceptions of the sponsor's credibility.

### **Discussion of Study 1 Findings**

In Study 1, we experimentally tested for sponsor gender differences in sponsor effectiveness. Our experimental design had several strengths: the experimental paradigm held constant access to referrals and the form of the referral. We tested how the sponsor's gender and perceived tenure interact to impact the sponsor's perceived credibility and the candidate's likelihood of being hired. The results were consistent with our arguments, such that, in general, male sponsors were advantaged except when the sponsors were perceived to be highly tenured. Analyses showed that while both male and female sponsors' perceived credibility increased as their perceived tenure increased, female sponsors benefited more so from increased tenure compared to male sponsors. Mediation analyses further demonstrated that when sponsors were perceived to be below average in tenure, male sponsors were viewed as more credible and this, in turn, boosted their effectiveness, compared to female sponsors, suggesting a gender gap in sponsor effectiveness which advantages male sponsors, when sponsors are perceived to be less tenured. This pattern reversed, however, when sponsors were perceived to be highly tenured: female sponsors perceived to be highly tenured were seen as more credible and their candidates more likely to be hired as a result than were male sponsors. In other words, at high levels of sponsor tenure, the gender gap in sponsor effectiveness reversed to favor female sponsors.

While Study 1 offered evidence of a causal relationship between sponsor gender and sponsor effectiveness and provided the opportunity to examine a possible mechanism underlying these observed gender differences (i.e., perceived credibility of the sponsor), a limitation of experimental work is the potential lack of external validity. We sought to address this limitation, and to replicate and validate our experimental evidence, by examining sponsor gender differences in sponsor effectiveness in the field.

### **Study 2**

To pick an appropriate context in which to test our predictions, we needed a context that would fulfill the following conditions: 1) mobility is predicated upon referrals, 2) mobility occurs at regular times and is conducted through a consistent process for all candidates, 3) there are regular observations of referrals over time from the same individual sponsor, 4) we could account for variation in the candidates receiving the referral, and 5) a male-dominated setting. We elected to test for gender differences in sponsor effectiveness in the context of referrals provided for prospective clerks for justices sitting on bench of the U.S. Supreme Court (henceforth, SCOTUS).

The first reason SCOTUS clerkship hiring is an ideal context to study sponsorship is the importance of recommendations to the success of candidates' (i.e., prospective SCOTUS clerks) applications. Competitive applications for these positions require prior experience clerking for a lower-level court judge (e.g., Appellate Court or District Court) and a recommendation from that judge (Hess, 2015; Peppers, 2006; Ward & Weiden, 2006). The recommendation letters from lower-level court judges serve to differentiate between candidates with similarly elite credentials (Hess, 2015; Peppers, 2006; Ward & Weiden, 2006). We, therefore, see the dynamic between lower-level court judges and their clerks as tantamount to the sponsor-candidate relationship. A second reason to examine SCOTUS clerkships is that the application and hiring steps are consistent for all applicants and thus, mitigates concerns about differential processes and temporal variation (Hess, 2015). Another benefit to this setting is that lower-level court judges are tenured for life (Legal Information Institute, 2018), which permits us to create a longitudinal sample of their successful placements of SCOTUS clerks and account for tenure in their position. A fourth basis for examining this context is that the requirement of a prior lower-court clerkships enables us to identify the potential set of applicants to SCOTUS clerkships, candidate characteristics, and their respective sponsor. Finally, although for over two decades women have graduated from law schools in higher numbers than men (Day, 2018; Olson, 2016), women remain underrepresented in most elite judicial positions in the legal field (Hess, 2015; Warner & Corley, 2017a). In other words, despite an ample supply of high-quality female candidates, the federal judicial system remains notably male dominated. As such, SCOTUS clerkships are

uniquely well-suited to examine the effects of gender and seniority in sponsorship within a male-dominated context.

### **Empirical Setting and Data**

We drew our sample of candidates from the U.S. Court of Appeals, District of Columbia Circuit (henceforth, D.C. Circuit), which provided several methodological advantages. The D.C. Circuit is well-known in the legal field as a highly competitive lower-level court clerkship and a stepping-stone to SCOTUS. The D.C. Circuit is also “widely viewed as second in importance only to the Supreme Court” due to the important and unique cases on which it rules (Lewis, 2003; Turner, 2003). We primarily selected the D.C. Circuit because it advances the largest proportion of clerks to SCOTUS of all lower-level courts. Specifically, since the mid-1980s, over 95% of SCOTUS clerks have advanced from one of the 13 Appellate courts (Hess, 2015; Peppers, 2006; *Supreme Court of the United States*, 2016; Ward & Weiden, 2006), and over 30% of those clerks have advanced from the D.C. Circuit alone, with the 2<sup>nd</sup> Circuit being the next largest feeder with 13% (Peppers, 2006; *Supreme Court of the United States*, 2016; Ward & Weiden, 2006). Given its broad reputation as a “feeder” court and a key differentiator for becoming a SCOTUS clerk, we share the widely held assumption that all D.C. Circuit clerks apply for SCOTUS clerkships (E. R. Becker et al., 1994; Hess, 2015; Kozinski, 1991; Mauro, 2015; The NYT Editorial Board, 2013; Tobias, 2014).

In addition, studying advancement from clerkships at a single lower-level court to SCOTUS clerkships, rather than across multiple lower-level courts, minimizes variation that may exist across different types of lower-level courts, which would introduce additional confounds. Finally, concerns about selection effects are tempered by the common application strategies practiced among prospective SCOTUS clerks (Hess, 2015): it is normative for candidates to send applications to all 9 sitting justices due to the highly competitive nature of SCOTUS clerkships, which reduces concerns that any observed effects could be due to candidates ‘mismatching’ their applications with certain SCOTUS justices. Henceforth, we will refer to the applying D.C. Circuit clerks as “candidates” (i.e., the candidate receiving the referral) and successful clerks who ultimately secure a SCOTUS clerkship (i.e., the candidate receiving the referral that was ultimately successful) as “clerks.”

As in Study 1, candidate quality is a potential alternative explanation for any effects we might find. For instance, if we observe that male candidates are more likely to advance and secure a SCOTUS clerkship compared to female candidates, it could be because male candidates are higher quality applicants, rather than evidence of bias. The homogeneity of our candidate sample and the competitive selection process for the D.C. Circuit clerkship makes this explanation unlikely. All candidates in our sample clerked for a D.C. Circuit judge, and this provides a strong initial screening of quality because, as previously mentioned, D.C. Circuit clerkships are highly competitive lower-level court clerkships (Hess, 2015; Mauro, 2015). Second, our sample of candidates is highly homogenous in terms of qualifications. Well over half of the candidates in our sample attended the same Top-5 law schools, which are generally recognized as Yale, Harvard, Stanford, the University of Chicago, and Columbia (rankings have remained relatively stable the last 3 decades) (Areheart, 2019; Berger, 2001; U.S. News & World Report, 2018), indicating that the majority of our sample attended the same elite law schools (see Appendix B for details). In addition, half of the candidates in our sample also served as law review editors at their respective institutions (see Appendix B for details). Being a law review editor is seen as a strong signal of quality, as editors are typically chosen on the basis of grades and/or the quality of written submissions (Henricksen, 2008). In sum, we argue that focusing our investigation on the D.C. Circuit provides an appropriate sample of candidates to SCOTUS clerkships who are likely to be similarly qualified and not encumbered by idiosyncratic matching issues, thereby reducing concerns about unobserved heterogeneity among candidates.

To construct our data set, we first acquired a list of individuals who had clerked for a D.C. Circuit judge (i.e., our candidates) between 1995 and 2015 from the Judicial Yellow Book, which is an annually published directory of judges and clerks.<sup>48</sup> This included data on 17 D.C. Circuit judges, including 15 sitting judges and 2 judges who became inactive or fully retired during the observation period.<sup>49</sup> Thus, we have many observations of candidates for each of these 17 judges, across multiple years. Among these 17 judges,

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<sup>48</sup> Judges can opt out of including their clerks in the Judicial Yellow Book. To fill any gaps in the book's records, we supplemented this information by inquiring about the names of law clerks directly from the chambers of the D.C. Circuit judges. In addition, we only went as far back as 1995 because that is the earliest the Judicial Yellow Book began digitizing records.

<sup>49</sup> There is no overlap in clerks who work for D.C. Circuit judges. Each clerk works for only 1 judge during his/her clerkship.

11 are male (64.7% of D.C. Circuit judges). The majority of D.C. Circuit judges graduated from a Top-5 law school and were nominated for the D.C. Circuit bench by a Republican-controlled White House (see Table 2.6). We then acquired a list of SCOTUS clerks for that same period from the Public Information Office at SCOTUS and merged this with our data on D.C. Circuit judges. This created the complete dataset ( $n=698$ ), which included observations of candidates for D.C. Circuit judges between 1995 and 2015 and which of those candidates successfully secured a SCOTUS clerkship.

### Measures and Variables

**SCOTUS Clerk.** Our dependent variable is an indicator variable representing if the candidate was successful in securing a SCOTUS clerkship in the year following their D.C. Circuit clerkship ( $1=Successful$ ,  $0=Unsuccessful$ ).

**Predictors.** The main predictor variables in our model are the gender of the D.C. Circuit judge (the sponsor in this context) and the tenure of the D.C. Circuit judge. To examine how tenure impacted male versus female sponsors' effectiveness, we interacted *Male Judge* and *Judge Tenure*.

**Male Judge.** The gender of the D.C. Circuit judge was coded manually based on publicly available information on judges' profiles on the official D.C. Circuit website ( $1=Male$ ,  $0=Female$ ).

**Judge Tenure.** To capture the tenure of the D.C. Circuit judge when s/he recommended the candidate for SCOTUS (i.e., at the time of the sponsorship), we calculated the difference between the year of the candidate's D.C. Circuit clerkship and the year of the D.C. Circuit judge's confirmation to the position.

**Male Candidate.** The gender of the candidate (i.e., the individual receiving the referral) was coded using a matching procedure that compared the candidate's first name to a list of names included in the U.S. Social Security database, which is a publicly available source that provides the most common first names by year and gender in the United States (see Aven, 2015 for a similar procedure). An indicator variable was created ( $1=Male$ ,  $0=Female$ ). While the candidate's gender was not the core focus of the paper, several studies have determined it to be an important factor in hiring (Merluzzi & Sterling, 2017). Therefore, we

included the gender of the candidate and interacted it with our variables of interest, which also accounted for the unique distribution of male to female candidates with male and female judges.

**Covariates.** Several control variables were included to account for additional characteristics of the judge and the candidate that may influence the candidate's likelihood to secure a SCOTUS clerkship: the judge's political ideology, senior status, education credentials, and prior success with securing SCOTUS clerkships for his/her prior clerks in the past. We also included measures of the candidate's education credentials and prior experience as an editor for his/her law school's review.

**Judge Senior Status.** Senior status is a form of semi-retirement for judges in the U.S. federal and state court systems. Judges qualify for senior status if they are at least 65-years-old and have served in federal/state courts 15+ years (U.S. Courts, 2017b, 2017a). Although senior status judges often reduce their workload and presence in the field, many continue to hire clerks (Legal Information Institute, 2018). Senior status was included as a control because it is an indicator of the judge's prestige, reputation, and may influence the judge's perceived competence. An indicator variable was created ( $1 = \text{Senior status at time of sponsorship}$ ,  $0 = \text{Not senior status at time of sponsorship}$ ).

**Judge Republican Nominee.** While judges primarily rely on legal doctrine and precedent when ruling on cases, they are also known to have personal political beliefs that influence their rulings and decisions (Chilton & Posner, 2015; Miles & Sunstein, 2008; Sunstein et al., 2006). We included the D.C. Circuit judge's political ideology as a control because political ideology could impact judges' decision-making regarding the clerks they hire and the network of connections they have in the field (which may have implications for their effectiveness as a sponsor). As a proxy, we coded for whether a Democratic- or Republican-controlled White House nominated the judge for the D.C. Circuit bench ( $1 = \text{Republican White House nominee}$ ,  $0 = \text{Democratic White House nominee}$ ).

**Judge Top-5 Grad.** We sought to control for the judge's competence by accounting for the prestige of his/her legal education. Judges must be highly accomplished and successful in their field to even be nominated and confirmed for a seat on the D.C. Circuit bench (Lewis, 2003; Mauro, 2015; The NYT Editorial Board, 2013). All judges are first nominated by the U.S. President and then go through a

confirmation process that is supervised by the U.S. Senate Judiciary Committee, much like how SCOTUS justices are nominated and confirmed. This process provides an initial screening for the judge's competence. We also coded for if the judge graduated from a Top-5 law school (rankings have been fairly stable over the last couple of decades) (U.S. News & World Report, 2018).<sup>50</sup> This information was gathered from publicly available profiles. An indicator variable was created ( $1=$ *Judge Top-5 law school graduate*,  $0=$ *Judge Non-Top-5 law school graduate*).

***Judge Clerk Tally.*** Considering that past performance is a strong predictor of future performance, we sought to control for the judge's prior success in facilitating clerks to SCOTUS. We created a tally variable representing the number of prior clerks the judge had successfully advanced to a SCOTUS clerkship at the time of the current clerk's recommendation. This provided a measure of the sponsor's level of prior success in providing recommendations for candidates. For example, if Candidate A was being recommended by D.C. Circuit Judge B in 2008, this variable would represent how many candidates that D.C. Circuit Judge B had successfully advanced to a SCOTUS clerkship prior to recommending Candidate A in 2008.

***Candidate Top-5 Grad.*** We sought to control for the candidate's competence by accounting for the prestige of the candidate's law school education, as attendance at high-status universities might improve candidate outcomes (Podolny, 2005; Stuart et al., 1999). We obtained the law school that the candidate attended using two different sources. First, education credentials of successful SCOTUS clerks were obtained via employment records provided by the SCOTUS Public Information Office (*Supreme Court of the United States*, 2016). Education credentials for candidates who did not secure a SCOTUS clerkship were recorded manually from self-reported information collected from online public profiles (e.g., LinkedIn profiles, law firm employee profiles) and matched on the candidate's name, gender, year of his/her D.C.

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<sup>50</sup> One could suggest an alternative way to measure judge competence is to examine the rulings the judge has made and if those rulings were overturned by the U.S. Supreme Court in an appeal. However, this measure is problematic. All lawyers can file appeals and the decision to appeal does not necessarily reflect the legitimacy of the ruling or the competency of the judge. D.C. Circuit rulings are also made by a panel of 3 judges, making it difficult to attribute the decision to any single judge (Cohen, 2002; Edwards & Livermore, 2009; Kim, 2008; Levy, 2017).

Circuit clerkship, and the name of the D.C. Circuit judge for whom they worked. From this information, we created an indicator variable to represent if the candidate graduated from a Top-5 law school or not, using the same procedure that was used for coding the judge's education credentials ( $1 = \text{Candidate Top-5 law school graduate}$ ,  $0 = \text{Candidate Non-Top-5 law school graduate}$ ). It should be noted that not all candidates who were recorded as working for a D.C. Circuit judge in the early years of our observation period (mid-1990s) had an online presence today, making it quite challenging to record their education credentials if SCOTUS did not have it on their employee records. As such, there is some missing information (missing education information for 86 observations of candidates). But these missing observations did not affect our results.<sup>51</sup>

**Candidate Editor.** As an additional measure of the candidate's competence, we also coded if the candidate worked as an editor at his/her law school's law review journal. This information was recorded using candidates' online profiles (same process used as described for *Candidate Top-5 Grad*). Considering this is an elite position (Filisko, 2014; Wecker, 2012), this information was typically readily available on professional profiles. We assumed that if a candidate did not report such a position, s/he did not serve as an editor. An indicator variable was created ( $1 = \text{Law review editor}$ ,  $0 = \text{Not law review editor}$ ). In cases where no education information could be obtained due to a lack of online presence, we also recorded the candidate's law review position as missing (same  $n=86$  missing observations as above).

## Empirical Strategy and Results

First, we estimated a linear probability model (LPM) with *SCOTUS Clerk* as the dependent variable and included fixed effects for the year and two-way clustered robust standard errors by year and the D.C. Circuit Judge. As with Study 1, we chose to estimate an LPM because our primary interest is in the interactive effect of the judge's gender and tenure on the candidate's probability of securing a SCOTUS

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<sup>51</sup> To obtain clerk information, we conducted searches of their names on using the Google search engine, which pulls from Google Scholar and other websites. We compared multiple pieces of information about the clerk to online profiles of individuals that appeared on professional websites (e.g., LinkedIn), employee profiles for private law firms, employee records for federal or state positions, etc. If no reliable record of the clerk could be identified using these sources, we recorded that clerk's education information as missing. To ensure that our models were not biased due to missing data, we created an indicator variable to represent if clerk education information was missing ( $1 = \text{Missing}$ ,  $0 = \text{Not}$ ) and re-ran all analyses. All findings were robust to the inclusion of this variable.



clerkship (see Brands & Fernandez-Mateo, 2017; Sorenson & Waguespack, 2006 for similar procedures). To address the heteroskedasticity in the errors, we used robust standard errors (Angrist & Pischke, 2009) and applied two-way clustering for year and D.C. Circuit Judge to account for the non-independence of observations. We also estimated logit models with fixed effects for the year and two-way clustered robust standard errors by year and D.C. Circuit Judge for comparison, and the results were consistent (see Appendix B for details).

**CEM matching.** Consistent with prior research on the skewed representation in the upper levels of the legal field (e.g., Warner & Corley, 2017a), our sample was imbalanced in terms of representation of male and female judges (see Table 2.6). To address any biases that this imbalance could introduce into our analyses, we opted to use a matching procedure to create a matched sub-sample to re-run all analyses. Matching procedures allow for researchers to control for pretreatment confounds that are often presented in archival data. We selected a coarsened exact matching (CEM) procedure as opposed to other matching procedures (e.g., propensity score matching) because there is evidence to suggest that CEM has several advantages to alternative matching techniques (Iacus et al., 2017). CEM finds and matches “twin” observations along a set of pre-determined control variables, thereby holding constant all covariates except for the variable of interest. The procedure is as follows: 1) data are coarsened into meaningful groups, 2) exact matches are made on the coarsened data, and 3) the uncoarsened values are retained (Blackwell et al., 2009). We restricted the matching procedure to a k-2-k match, which produces an equal number of treatment and control units (Blackwell et al., 2009; Iacus et al., 2017). This is in contrast to the traditional procedure, which often results in a different number of treatment and control units that are then attached to weights that must be used in subsequent analyses. However, users can restrict the match to a k-2-k solution to avoid the inconvenience of having to use weights in subsequent analyses (Iacus et al., 2017).

Since our main analyses focused on the sponsor’s (i.e., the D.C. Circuit judge) gender, we restricted our matching to a k-2-k match along the judge’s gender, meaning an equal number of observations with male and female judges were matched along a set of predetermined control variables, specifically the judge’s tenure (*Judge Tenure*) and education credentials (*Judge Top-5 Grad*). We restricted our matching

to these two judge characteristics because our chief theoretical interest is how the judge's tenure may differentially influence the success rates of male and female judges' candidates. In effect, we matched observations of male and female judges who are equally tenured and competent (as measured by their education credentials). While the judge's prior successes with facilitating candidate advancement (*Judge Clerk Tally*) may be an important measure of the judge's experience, we did not include this variable in the matching protocol because it is correlated with the dependent variable; past performance is often a strong predictor of future performance. This procedure created a matched subsample of 151 observations of male judges and 151 observations of female judges (*multivariate LI statistic* = .040). We then conducted all the same analyses on the CEM sample as on the full sample.

## Results

Descriptive statistics are reported in Table 2.7, and the LPM models for the full and CEM samples are reported in Table 2.8. In Model 1, we observed a positive main effect of *Male Judge* on *SCOTUS Clerk* ( $\beta = .227, p < .001$ ), indicating that, as we predicted, candidates of male D.C. Circuit judges were more likely to secure a SCOTUS clerkship as compared to candidates of female D.C. Circuit judges. Notably, male and female candidates were equally likely to advance to a SCOTUS Clerkship ( $p = .178$ ). We also observed a negative main effect of *Judge Tenure* on *SCOTUS Clerk* ( $\beta = -.009, p = .001$ ), indicating that candidates recommended by more tenured judges were associated with poorer outcomes.

Model 2 included the *Male Judge* x *Judge Tenure* x *Male Candidate* three-way interaction on *SCOTUS Clerk* ( $\beta = .036, p = .003$ ). To better understand this interaction, we decomposed it (see Table 2.9) and plotted it. Figure 2.4 shows that for female judges recommending female candidates, *Judge Tenure* had a positive effect on the candidate's likelihood of securing a SCOTUS clerkship compared to male judges (see Table 2.9 for simple slopes). All other combinations of judge and candidate genders had significant and negative slopes. This result indicates that while tenure had a positive relationship with female judges' probability of having their female candidates secure a SCOTUS clerkship, tenure had a negative relationship with candidate outcomes for all other sponsor-candidate combinations. Model 3 also

demonstrated that the overall three-way interaction term was robust to the inclusion of all control variables ( $\beta=.031, p=.028$ ).

As an additional robustness check and to explore what might be explaining the Female-Female slope, we also examined the slopes following the inclusion of all control variables. Intriguingly, we observed that inclusion of controls rendered the Female Judge-Female Candidate simple slope non-significant ( $p=.213$ ), providing suggestive evidence that one of these control variables was explaining the variance of the Female-Female slope (see Table 2.9). To determine which covariate was explaining the variance in the Female-Female simple slope, we used a stepwise approach and entered each covariate into the model. Results indicated that both *Judge Top-5 Grad* and *Judge Clerk Tally* independently rendered the Female Judge-Female Candidate slope non-significant (see Table 2.9). We take this as suggestive evidence that female candidates' improved outcomes when being recommended by female judges can be explained, at least in part, by those female judges' prestigious education credentials and prior success facilitating candidates' advancement to SCOTUS clerkships. This is consistent with our theorizing; elite education credentials and prior success facilitating candidates' advancement would both be signals of female judges' status and experience and could become more salient as signals of sponsor quality as female judges increase in tenure. That is, while these signals of status are relatively unhelpful when women are less tenured, once their competence within the context has been verified (as manifested via their longevity), those signals take on more significance to observers. But what is interesting is that these signals appeared unique to female judges when recommending female candidates. It is also important to note that the Female Judge-Female Candidate simple slope remained significant after the inclusion of indicators of the candidate's law review experience and law school education, indicating that it was not that highly tenured female judges' effectiveness was due to them recommending particularly high-quality female candidates.

Table 2.8 also reports analyses run on the CEM subsample. In Model 6, we observed the positive main effects of *Male Judge* ( $\beta=.249, p<.001$ ) was robust, while the main effect of *Judge Tenure* was non-significant ( $p=.409$ ). The *Male Judge* x *Judge Tenure* x *Male Candidate* three-way interaction in Model 7 was also significant ( $\beta=.036, p=.044$ ), even with the inclusion of all control variables in Model 8 ( $\beta=.044$ ,

$p=.017$ ). To ensure the pattern of the interaction was robust, we calculated the simple slopes for the three-way interaction in the CEM subsample. Results were largely consistent with analyses on the full data. The Female Judge-Female Candidate simple slope remained significant and positive, and the Female Judge-Male Candidate slope remained significant and negative. And, as with the full analyses, the Female Judge-Female Candidate slope became non-significant after the inclusion of the covariates.<sup>52</sup> Taken together, these findings demonstrate that our above finding that the judge's gender, tenure, and the candidate's gender interacted to impact the candidate's advancement to SCOTUS was robust even after accounting for potential imbalanced representation in the population of D.C. Circuit judges.

### **Robustness Checks and Alternative Explanations**

**Network and structural explanations.** Prior research has shown that social and professional networks have profound effects on individual's access to information, promotion potential, and overall career success (e.g., Burt, 2004; Sterling, 2014). Theoretical and empirical work on structural differences in men's and women's networks suggests that men and women could have different levels of access to information and resources, which could change what resources can be activated and accessed in their respective networks (Ibarra, 1992, 1997). While we operationalized sponsorship in the context of SCOTUS clerkships as a formal referral provided by the D.C. Circuit judge, it is possible that D.C. Circuit judges also used their networks to engage in informal advocacy to increase the likelihood that their referral will result in the candidate's hire by a SCOTUS justice.

Gender differences in the structures of male and female D.C. Circuit judges' networks could produce differences in the opportunities that male and female D.C. Circuit judges have to engage in this type of informal sponsorship. To capture potential network effects, we included two additional indicator variables. First, an important network to consider is that of the sponsor and the audience, or the individual

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<sup>52</sup> Intriguingly, the inclusion of covariates into the model also rendered the simple slopes for male judges non-significant, both in the case of male judges recommending Male Candidates ( $p=.795$ ) and male judges recommending female candidates ( $p=.389$ ). This could indicate that once correcting for the imbalance of the data, highly tenured male judges' candidates are not associated with significantly poorer outcomes compared to those recommended by less tenured male judges; rather, it seems tenure doesn't change male sponsors' effectiveness, which would be consistent with our theorizing.

the sponsor is attempting to influence on behalf of the candidate. In this context, this would mean the law school network of the D.C. Circuit judge (the sponsor) and the SCOTUS justice who is hiring the candidate. While it is normative for candidates to send applications to all SCOTUS justices (Hess, 2015), we elected to examine the role of a shared law school network between D.C. Circuit judges and SCOTUS justices. We examined our sample and, to our surprise, there were very few instances where a D.C. Circuit judge and a SCOTUS justice shared the same law school network—only 40 observations (approximately 6% of the total sample) were characterized as candidates having been recommended by a D.C. Circuit judge that attended the same law school as one of the SCOTUS justices. We included an indicator variable to represent if the law school the D.C. Circuit Judge and the receiving SCOTUS Justice attended were the same ( $1 = \text{D.C. Circuit Judge and SCOTUS Justice attended same law school}$ ,  $0 = \text{Did not attend same school}$ ), to be referred to as *Judge-Justice Educ Match*. Results showed that after accounting for this, the *Male Judge x Judge Tenure x Male Candidate* three-way interaction on *SCOTUS Clerk* remained significant (Table 2.8, Model 4:  $\beta = .035$ ,  $p = .011$ ). In addition, the interaction term in the matched subsample remained significant after accounting for this network explanation (Table 2.8, Model 9:  $\beta = .045$ ,  $p = .009$ ).

Alternatively, an additional network to consider is that of the D.C. Circuit judge (the sponsor) and the candidate. We included a variable to represent if the clerk and D.C. Circuit judge attended the same law school, indicating that both the sponsor and the candidate belonged to the same law school network. We created an indicator to represent if the law schools matched ( $1 = \text{Judge and clerk attended same law school}$ ,  $0 = \text{Did not attend same school}$ ), to be referred to as *Judge-Candidate Educ Match*. Results showed that even after accounting for this, the *Male Judge x Judge Tenure x Male Candidate* three-way interaction on *SCOTUS Clerk* remained significant for both samples (Table 2.8, Model 4:  $\beta = .035$ ,  $p = .011$ ; Model 9:  $\beta = .045$ ,  $p = .009$ ).

**Candidate quality explanations.** Another possibility is that these effects are driven by unobserved variation in the quality of the candidate. For instance, one reason why male judges' candidates are more likely to advance to SCOTUS clerkships could be because male judges recommend higher quality candidates compared to female judges. If this is true, preference for male judges' candidates would be a

rational choice for the audience and not evidence of bias. We included two measures of the candidate's competence in the main analyses, including if the candidate graduated from a Top-5 law school (*Candidate Top-5 Grad*) and if the clerk worked as an editor for his/her law review journal (*Candidate Editor*). Results were robust to accounting for these measures of candidate competence. However, one could argue that a more fine-grained measure of the candidate's education credentials is warranted. To address this, we entered each of the Top-5 law schools as fixed effects (non-Top-5 schools as reference category), including *Candidate Harvard Grad*, *Candidate Columbia Grad*, *Candidate Stanford Grad*, *Candidate UChicago Grad*, and *Candidate Yale Grad*. Graduates from these top schools accounted for 55.3% of all observations in our sample. This, in combination with the large variety of other law schools that accounted for the other half of the sample, is why we only included fixed effects for each of the Top-5 schools instead of having a fixed effect for each school in the sample. These results showed that even after including these fixed effects, the *Male Judge x Judge Tenure x Male Candidate* three-way interaction remained significant (Table 2.8, Model 5:  $\beta = .037$ ,  $p = .007$ ; Model 10:  $\beta = .043$ ,  $p = .007$ ).

### Discussion of Study 2 Findings

In Study 2, we sought to validate and extend the experimental findings from the first study in archival data from the U.S. Supreme Court law clerk hiring process in order to examine sponsor gender differences in sponsor effectiveness in a naturalistic setting. We argued the dynamic between D.C. Circuit judges and candidates is tantamount to the sponsor-candidate relationship because D.C. Circuit judges act as sponsors in helping secure SCOTUS clerkships for candidates by providing a recommendation. Analyses showed that candidates of male D.C. Circuit judges were more likely to advance compared to those of female D.C. Circuit judges, although this dynamic was also dependent on the tenure of the D.C. Circuit judge and the gender of the candidate being recommended. Importantly, analyses showed that for female judges, increased tenure was associated with improved outcomes for female candidates, specifically. However, all other gender combinations did not experience this benefit to tenure; for these combinations, increased tenure led to lower likelihood of candidates securing SCOTUS Clerkships. We took this as suggestive evidence that, consistent with our theorizing, female judges benefited from seniority while male

judges did not. However, this benefit appeared to be particularly true for female judges recommending female candidates.

It is important to keep in mind that, while we do have multiple observations of judges over time (i.e., multiple instances of judges recommending candidates), our sample is limited, and this precludes us from drawing strong conclusions based on these data alone. This limitation may be an artifact of the very context we seek to understand –male-dominated settings with a paucity of women in the top ranks. Hence, sample sizes in such contexts may be insubstantial and future work may require aggregating findings from various settings. Nonetheless, considering that Study 2’s results reinforce the findings from Study 1, we argue that the results from both help to offset the other’s shortcomings. We consider this more in our discussion of future research directions.

### **General Discussion**

Across two studies, we provide evidence that male and female sponsors differed in how effective they were in securing positions and opportunities for their candidates. Study 1 provided experimental evidence that sponsor gender interacted with perceived sponsor tenure to impact perceptions of the sponsor’s credibility and, in turn, the sponsor’s effectiveness. Mediation analyses showed that when sponsors were perceived to be highly tenured, female sponsors were viewed as more credible and more likely to be called back and their candidates hired as a result, compared to male sponsors also perceived to be highly tenured. This pattern reversed among sponsors perceived to be below average in tenure, such that the candidates of male sponsors were preferred. Thus, Study 1 provided evidence that sponsor gender had a causal effect on sponsor effectiveness, and that this effect may be explained in part by the perceived credibility of the sponsor.

While Study 1 facilitated improved causal identification and understanding of an underlying mechanism, we sought to validate and replicate these findings in the field. Study 2 used the uniquely relevant context of the U.S. Supreme Court clerkship hiring process and examined how the D.C. Circuit judge’s (the sponsor in this context) gender and tenure was associated with candidate’s (the lower circuit clerk, in this context) probability of securing an elite SCOTUS clerkship position. Results showed that

candidates of male D.C. Circuit judges were more likely to secure a SCOTUS clerkship compared to those of female judges. This relationship was also contingent on the tenure of the judge and the gender of the candidate receiving the recommendation. A closer examination of this three-way interaction showed that for female judges recommending female candidates only, increased tenure was associated with higher probability of female candidates securing a SCOTUS clerkship, while increased tenure was associated with poorer candidate outcomes for all other judge gender-candidate gender combinations. Moreover, we found additional suggestive evidence that this uniquely positive relationship between tenure and female judges' probability of facilitating female candidates' advancement to SCOTUS could be explained in part by the judge's elite education credentials and prior success facilitating candidates' advancement to SCOTUS. Taken together, this package of studies documented a similar pattern: male sponsors did not benefit from greater tenure (or were even negatively impacted), while female sponsors did. Study 1 demonstrated experimentally that female sponsors perceived to be highly tenured were viewed as more credible and more effective sponsors as a result. Study 2 provided field evidence that for female judges, increased tenure was associated with an increased probability of female candidates securing a SCOTUS clerkship, in particular. Male judges did not see the same benefits to increased tenure, in comparison.

The observant reader will have noticed that while we found a significant three-way interaction of the judge's gender, judge's tenure, and the candidate's gender (i.e., the candidate's gender moderated the judge gender x judge tenure two-way interaction) in Study 2, this same effect was not apparent in Study 1. We see this as a potential limitation of our experimental paradigm used in Study 1, rather than that the effect of candidate gender is a unique artifact of the Study 2 context. Specifically, we designed the experiment to highlight the gender of the sponsor by using voice actors, rather than relying on written information alone. However, this same "rich" information was not provided about the candidates; this piece of information was provided only through the use of gender-stereotypic names and gendered pronouns. We believe that in high-stakes situations, where individuals receiving information about candidates via referrals, there will be more attention paid to the gender of the candidates than may have been the case in Study 1. This is therefore an empirical question that would benefit from further exploration. Regardless,



evidence from both studies underscored that characteristics of the sponsor are important in understanding the referral process and candidates' probability of being hired after receiving a referral.

### **Contributions, Limitations and Future Research Directions**

Referrals have been studied extensively in the context of inequality, with evidence indicating that referrals are particularly important to understanding the different outcomes women and minorities experience in the labor market and hiring processes in firms (e.g., Elliott, 2001; Merluzzi & Sterling, 2017; Petersen et al., 2000; Rubineau & Fernandez, 2013). But nearly all of this prior work has focused on how negative stereotypes and biases affect perceptions of candidates in the eyes of the audience (Rubineau & Fernandez, 2013; but see Yakubovich & Lup, 2006). This overlooks how characteristics of the sponsor providing the referral can impact the outcomes of the candidate receiving the referral, thereby painting an incomplete picture of how referrals are evaluated by the audience. Our findings fill this gap in the literature and speak to the important role that the sponsors play in understanding candidate outcomes in the hiring process. Across two studies in the lab and the field, we provide evidence that male and female sponsors' effectiveness differ, such that seniority has a positive impact on female sponsors' effectiveness. We encourage scholars to continue to explore the dynamic between the sponsor and the audience in future research so as to craft a more complete understanding of the referral process.

We also contribute to the nascent stream of research on contexts where traditional gender biases reverse to advantage women. The lion's share of prior work on gender in the workplace shows gender stereotypes and biases negatively impact perceptions and evaluations of women (Heilman, 2012; Ridgeway, 2011), particularly for women working in male-dominated environments or stereotypically masculine roles (Lyness & Heilman, 2006; Yoder, 1991). But, new empirical evidence suggests that seniority changes these effects; scholars have documented instances where highly tenured or high-ranking women are perceived more positively than men of equal tenure or rank (Bohren et al., 2019; Botelho & Abraham, 2017; Rosette & Tost, 2010). Findings from our studies are consistent with this stream of research, such that higher levels of tenure increased female sponsors' perceived credibility and effectiveness as sponsors, while male sponsors did not benefit from seniority. These findings are further evidence that seniority confers credibility

to female sponsors, as we initially theorized, particularly in contexts where women are ‘the exception’ and their longevity and success become a signal of extraordinary capability and quality. We see the fundamental idea—that people account for the effects of discrimination when evaluating others—as an important phenomenon worthy of future research, especially as organizations attempt to increase their leadership pipelines of women and minorities.

The overarching goal of the present work is to provide evidence that prior research on referrals has largely overlooked a significant stage in the referral process (but see Rubineau & Fernandez, 2013; Yakubovich & Lup, 2006). Much of the existing literature focused on the characteristics of a candidate receiving a referral and considered how both supply-side and demand-side drivers, as it relates to the candidate, could impact the candidate’s likelihood of being hired. Our findings introduce an important third-party into the decision-making process and offers evidence for a demand-side mechanism; the audience’s evaluations of candidates may be shifted based on biased views of the sponsor who provided the referral. The focus on demand-side processes in the referral process is an important limitation of the present work and opens a good opportunity for future research. Future studies might extend this program by investigating the supply side of sponsors and considering important antecedents that precede the provision of sponsorship. For instance, selection effects could lead to certain candidates being more likely to interact with and, thus, receive referrals from certain sponsors, and there may be gender differences in how likely candidates are to put themselves forward to ask for sponsorship. Prior work on homophily and gender differences in networks certainly speaks to some of these questions (Ibarra, 1992; Mcpherson et al., 2001); homophily effects could play out in the form of female candidates being more likely to interact with, form ties with, reach out to, and receive referrals from female sponsors, and male candidates from male sponsors. In addition, other work shows that expertise is more likely to be recognized in same-gender pairings (Joshi, 2014), which could account for instances where candidates have access to potential sponsors, but still not be seen as viable candidates to receive sponsorship. However, supplementary studies included in the appendix of this dissertation offer suggestive evidence against gender differences in the rate of sponsorship being provided (see appendix).

Relatedly, there may be candidate gender differences in how likely male and female candidates are to put themselves forward and ask for referrals and sponsorship. Prior research on gender differences in self-promotion (i.e., discussing one's own accomplishments and praises) and the propensity to initiate negotiations provides suggestive evidence that female candidates may be less likely to ask for referrals (Bowles et al., 2007; Liebbrandt & List, 2015; Rudman, 1998). What is important to note here, in a practical sense, is that the increased likelihood of same gender sponsor-candidate pairings could be problematic unless women are forming ties with particularly high-ranking or highly tenured female colleagues; our findings would suggest that low- or middle-ranking female sponsors will be less effective in securing positions for their candidates compared to their male counterparts. Both the matching of candidates to sponsors and the likelihood of candidates asking for support are important antecedents to the provision of sponsorship that warrant additional research.

In addition, it could be that male and female sponsors are differentially likely to provide sponsorship, in general; gender differences in networks and other structural constraints (e.g., Ibarra, 1992) could influence access to key decision-makers and information that is vital for the provision of referrals. Just as men and women differ in their access to influential sponsors, male and female sponsors may differ in their access to influential gatekeepers and valuable information (i.e., those who make key decisions about opportunities, to which sponsors want to secure for their candidates). If male and female sponsors have different levels of access to timely information about opportunities or to key decision-makers, that could produce gender differences in sponsor effectiveness, generally, or their ability to provide it at all. Furthermore, even if we assume male and female sponsors do have access to the same resources and gatekeepers that would provide them with the opportunity to provide sponsorship, it is possible that male and female sponsor differ in how willing they are to provide sponsorship to candidates. Indeed, there is a stream of research demonstrating that, in certain contexts, women hesitate to advocate for the advancement of other women (e.g., Derks et al., 2011; Faniko et al., 2017) and that this is particularly true for women working in high-status, male-dominated contexts (Duguid, 2011). Thus, differences in male and female

sponsors' willingness to provide sponsorship, and how might vary by the gender of the candidate, is an important antecedent to examine when trying to understand the sponsorship process more broadly.

### **Conclusion**

The important role that referrals play in the hiring process, particularly for those contending with the negative effects of gender stereotypes and biases, is well documented in the literature. However, how these stereotypes and biases impact the effectiveness of the sponsors providing the referrals is not well understood. The heavy focus in prior research on the candidate receiving referrals overlooks the critical role that sponsors play in the referral process and results in an incomplete picture of how referrals are evaluated by the audience. This paper provides an initial attempt to remedy this oversight and examines how the sponsor's gender and tenure interact to influence the probability of the candidate being selected using a multi-methods approach. Evidence from the field and lab showed female sponsors benefited from greater tenure, such that their candidates were more likely to be hired, while male sponsors did not. Experimental evidence further showed highly tenured female sponsors were seen as more credible and this explained why their candidates were more likely to be hired, compared to highly tenured male sponsors. These findings underscore the importance of considering the sponsor's characteristics in order to fully capture the nuances of the referral process.

**CHAPTER 3. An Investment Opportunity or Your Duty? Gender and Mental Models in  
Sponsorship Decisions<sup>53</sup>**

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### **Abstract**

Sponsorship involves high-status and influential organizational members (i.e., sponsors) leveraging their social capital to identify and secure opportunities that facilitate junior employees' (i.e., protégés') career advancement. But how do sponsors make decisions about whether and for whom to mobilize their social capital? Societal gender roles and evidence of gender disparities in accessing social capital suggest that men and women will have difference conceptualizations of their roles as sponsors and different decision-making processes about providing sponsorship, although the nature of these differences is not well understood. Drawing from an inductive qualitative analysis of leaders at a multinational professional services firm, I developed a conceptual framework of mental models that sponsors display when deciding whether and for whom to provide sponsorship. This framework includes two distinct mental models that highlight differences in male and female sponsors' decision making: 1) men were associated with an investment-oriented mental model that frames social capital as a resource that can be invested in high-potential protégés to generate returns for sponsors in the future, and 2) women were associated with a duty-oriented mental model that frames social capital as a resource that leaders have a responsibility to spend to help deserving protégés succeed.

*“At the height of his wealth and success, the financier Baron de Rothschild was petitioned for a loan by an acquaintance. Reputedly, the great man replied, ‘I won’t give you a loan myself; but I will walk arm-in-arm with you across the floor of the Stock Exchange, and you soon shall have willing lenders to spare’”* (Cialdini, 1989, p. 45).

Social capital is a vital resource with meaningful implications for life inside and beyond the firm. It represents the resources that are embedded in social and professional networks, which can be extracted for one’s benefit by activating certain relationships (Bourdieu, 1986; Bourdieu & Wacquant, 1992; Kilduff & Tsai, 2003). Fundamentally, social capital is the concept that the trust generated through social relationships is valuable because it facilitates processes such as evaluations, sharing information, exchanging resources, and accessing opportunities, all of which are consequential for professional success (Castilla, 2005; Fernandez et al., 2000; Lin, 1999, 2001). But as with many resources in organizations, accruing social capital is a gendered process (Burt, 1998; Lin, 2000; McDonald, 2011; van Emmerik, 2006). Structural barriers and constraints lead to suboptimal returns from women’s social and professional networks (Brass, 1985; Lutter, 2015; McDonald, 2011; Woehler et al., 2021). These gender disparities in social capital have been linked to gender gaps in career advancement rates (e.g., Lyness & Thompson, 2000; McDonald et al., 2009; Yang et al., 2019).

Focusing on individuals’ access to social capital and its impact on their career advancement has yielded valuable insights, yet accessing and mobilizing social capital for one’s own benefit is only one way that social capital can be used. As the above description of Baron de Rothschild’s behavior illustrates, social capital can also be mobilized to benefit others; by publicly displaying his professional relationship and support, Baron de Rothschild opened up professional opportunities for his acquaintance. This is core to the concept of sponsorship, which is a form of career support in which high-status and influential senior organizational members (i.e., sponsors) leverage their status and influence to foster the career advancement of junior organizational members (i.e., protégés) (Hewlett, 2013a; Ibarra et al., 2010). Sponsorship can be framed two ways in the minds of those providing it: sponsors decide to mobilize their social capital for protégés as either a prosocial behavior that helps protégés or as a self-interested “investment” with the potential to generate future returns for sponsors. Whereas the former is more consistent with

conceptualizing sponsorship as a form of workplace support (Allen et al., 2004; Kram, 1985), the latter frames sponsorship as a uniquely reciprocal relationship in which sponsors' efforts to facilitate their protégés' career advancement are in exchange for the reputational benefits that sponsors accrue from their protégés' (potential) high performance in the future (Hewlett, 2013a). This transactional approach to sponsorship is consistent with the long-held notion that social capital operates much like actual capital (Bourdieu, 1986; Fernandez et al., 2000); it can be generated, spent, and invested in others with the intention of generating returns.

This is problematic because sponsorship has been pitched as a solution to gender inequity in career advancement rates (e.g., Hewlett, 2013a; Ibarra et al., 2010). Thus, it is critical to understand how male and female leaders, once they have advanced to high-status positions in organizations and have the opportunity to provide sponsorship, make decisions about using their social capital for junior organizational members who are climbing the organizational ladder behind them. To that point, gender disparities in social capital (Brass, 1985; Burt, 1998; Lutter, 2015), which negatively impact women's career advancement (McDonald, 2011; McDonald et al., 2009; McGuire, 2002), are suggestive: women who do ascend to leadership positions might perceive and engage with their social capital differently than men. These gender differences would result in different decision-making processes about providing sponsorship. Societal gender roles and pervasive gender stereotypes that men and women internalize highlight the possibility that men and women conceptualize their roles as sponsors differently and, therefore, engage in different decision-making processes about providing sponsorship (Burn, 1996; Correll, 2004; Heilman, 2012). Despite this suggestive evidence, the processes that inform how men and women make decisions about mobilizing their social capital for others in sponsorship are not well understood, rendering our understanding of how male and female leaders think about, and use, their social capital incomplete.

Drawing from a qualitative examination of leaders at a multinational professional services firm, I introduce a conceptual framework for mental models that inform how men and women make decisions about using their social capital in sponsorship. Compared to women, men were more likely to display an investment-oriented mental model that framed social capital as a resource that can be invested in high-



potential protégés to generate returns for sponsors in the future. Men made assessments about the quality of potential “investments” based on junior employees’ perceived fit to the firm and consulting work more broadly, which was viewed as predictive of their potential for advancement and success long term. This is in contrast to the duty-oriented mental model of sponsorship that women were more likely to display, which framed social capital as a resource that leaders have the responsibility to share with deserving protégés to help them succeed. Women identified protégés through signals of junior employees’ commitment to the work; highly committed protégés were seen as worth the potential cost of sponsorship and as an opportunity for women to reciprocate their own experiences receiving sponsorship by paying it forward.

This paper makes several contributions. First, identifying mental models of how male and female leaders make decisions about mobilizing their social capital for others contributes to our understanding of how leaders develop top talent and builds on our understanding of how mental models inform individual and strategic choices in organizations (Gavetti & Levinthal, 2000; Porac & Thomas, 1990). These findings speak to an ongoing effort to understand how networks, and corresponding social capital, are correlated with career outcomes by examining the mechanisms that inform the cognitive activation of network-embedded resources (Brands, 2013; Krackhardt, 1987; Smith et al., 2016). Although this prior work has often focused on activation for one’s own career benefit, this paper provides insight into using social capital to benefit others. This paper also offers insight to the psychological underpinnings of social capital mobilization for others’ benefit (Rubineau & Fernandez, 2013; Smith, 2005, 2010). Qualitative evidence of gender differences in how sponsors identified potential protégés also contributes to the rich literature on the use of signals, which in this case are specific characteristics of potential protégés, to make inferences about quality in situations of uncertainty (e.g., Rivera & Tilcsik, 2016; Spence, 1973). Finally, this paper has important implications for understanding the microfoundations of gender disparities in social capital and in returns from networks more generally (Lin, 2000; Woehler et al., 2021).

### **Social Capital and Sponsorship**

Social capital has emerged as a framework that can be used to understand the advantages that some individuals and groups have over others (Bourdieu & Wacquant, 1992; Burt, 1982; Coleman, 1990; Lin,

2001), the core notion being that “better connected people enjoy higher returns” (Burt, 2001, p. 32). It has been treated as analogous to actual capital, in that it can be accrued, generated, and spent to access certain advantages and achieve specific gains (Bourdieu, 1986; Fernandez et al., 2000). A considerable amount of evidence shows the positive effects of social capital on a range of outcomes that are consequential for professional success, including status attainment, information sharing, resource exchange, knowledge transfer, accessing support and opportunities, job search, and recruitment (Castilla, 2005; Fernandez & Sosa, 2005; Granovetter, 1973; Hansen, 1999; Lin et al., 1981; Reagans & McEvily, 2003; Reagans & Zuckerman, 2001; Wei et al., 2011).

Much of the prior work on social capital has focused on how individuals earn and spend social capital for their own benefit. However, it can also be spent on behalf of others. Burt (1998) argued that social capital can be loaned from one party to another as a way to lend legitimacy and, in turn, facilitate career advancement. This notion of lending and borrowing social capital can be captured by the construct of sponsorship, which involves high-status and influential senior colleagues using their status, rank, and influence to facilitate the career advancement of junior colleagues (Hewlett, 2013a; Ibarra et al., 2010). Examples of sponsorship behaviors include, but are not limited to, making strategic introductions between protégés and other influential members of the organization, referring protégés to promising job opportunities, advocating for protégés’ promotion or advancement, and identifying and securing stretch assignments that boost protégés’ visibility (Ibarra et al., 2010). Sponsorship has been shown to positively impact the careers of those who receive it, across an array of disciplines and fields (see Allen et al., 2004 for meta-analysis).

Sponsorship can be framed in different ways. One could argue that if social capital is considered a valuable resource, mobilizing it to foster protégés’ career advancement is an example of spending resources to help others.<sup>54</sup> Sharing resources and providing support is an example of prosocial and helping behavior

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<sup>54</sup> This conceptualization is closer to how mentorship is conceptualized. Indeed, some argue that sponsorship is captured by the larger theoretical construct of mentorship, which is defined as a professional relationship between a more experienced employee and a less experienced employee, with the goal of fostering self-esteem growth and develop one’s work identity and skills (Dalton et al., 1977; Kanter, 1977; Kram, 1985; Levinson et al., 1979; Shapiro et al., 1978). Mentorship includes psychosocial support (e.g., advice, guidance, and social support) and career-related support (e.g., feedback, coaching, protection, boosting visibility), with

(see Penner et al., 2005 for review; also see Taylor & Curtis, 2018). However, the reputational link between sponsors and protégés that comes from sponsors mobilizing their social capital on protégés' behalf highlights an alternative perspective: it can be argued that sponsors are engaging in a self-interested investment of their social capital, and investments have the possibility of generating returns. This is consistent with prior conceptualizations of sponsorship as a reciprocal relationship. Hewlett (2013a) theorized that as sponsors' efforts to facilitate their protégés' advancement are done in exchange for the reputational benefits that they accrue from the future (potential) high performance of their protégés. This argument states that sponsors support protégés because they are "an investment in [the sponsor's] own career, organization, or vision" and not because of "altruism or like-mindedness" (Hewlett, 2013a, p. 20). This transactional model of sponsorship is consistent with the notion that social capital operates like actual capital and can be invested with the goal of generating returns (Bourdieu, 1986; Fernandez et al., 2000). However, how sponsors perceive their role in sponsorship and make decisions about mobilizing their social capital for others is still an open question, and our understanding of how male and female leaders think and make decisions about mobilizing their social capital for others remains incomplete.

### **Gender and Deciding to Mobilize Social Capital in Sponsorship**

Much of prior work on gender and sponsorship has focused on the protégé's perspective (Baldiga & Coffman, 2016; Ibarra et al., 2010), but less is known about how sponsors conceptualize sponsorship and make decisions about using their social capital for protégés. Due to the unique nature of social capital as a resource and the dearth of direct examinations of gender differences in sponsor decision making, I draw from disparate literatures to outline the intuition for anticipating differences in how men and women conceptualize their roles as sponsors, think about using their social capital for others, and make decisions about providing sponsorship more generally. First, I outline how network-based disparities in access to and returns on social capital might lead to differences in how men and women think about their own social

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sponsorship behaviors falling under the latter category (Allen et al., 2004; Ensher & Murphy, 1997; Kram, 1985; Levesque et al., 2005; Noe, 1988; Tepper et al., 1996). However, other scholars have argued that this model conflates mentorship and sponsorship behaviors, which are actually distinct because mentorship does not inherently involve the use of social capital; thus, they argue, findings related to decision-making about mentorship should not be assumed to also apply to sponsorship (Allen et al., 2004; Friday et al., 2004; Giscombe et al., 2017; Ibarra et al., 2010). This paper shares this perspective.

capital and, in turn, make decisions about spending it as sponsors. Second, I highlight how societal gender roles are also likely to influence men's and women's self-perceptions about their roles as sponsors and their decision-making process regarding the mobilization of social capital for others.

### **Gender Disparities in Social Capital and Implications for Sponsor Decision Making**

The structure of an individual's social and professional network plays a big role in the individual's ability to generate, accrue, and access social capital (Kilduff & Tsai, 2003). However, certain constraints influence the types of connections that women have the opportunity to form, and this, in turn, influences the formation of their network and social capital. The Homophily Principle, which states that "contact between similar people occurs at higher rates than contact among dissimilar people" (Mcpherson et al., 2001, p. 416), explains a considerable amount of baseline differences in men's and women's networks. Gender-homophilous connections are less likely to benefit women than men because of the underrepresentation of women in the upper echelons of organizations (Catalyst, 2020; Warner & Corley, 2017). Women have fewer opportunities to build connections with other women who are high-status and who possess the information, resources, and connections that are most valuable for career advancement (Brass, 1985; Ibarra, 1992, 1997), and women receive a disproportionate amount of career-related support and information from other women (McDonald, 2011; McGuire, 2002).<sup>55</sup> A gender-homophilous network is unlikely to limit men's access to valuable resources and opportunities because top-tier positions are still held predominately by men (Blair-Loy, 2001). Taken together, this produces a gendered social "capital deficit" (Lin, 2000, p. 790), such that women struggle to access social capital compared to men. This deficit has been linked to gender differences in career trajectories (Bartol, 1978; Kanter, 1977; McDonald, 2011).

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<sup>55</sup> Evidence suggests that women have attempted to adapt to these constraints to their networks, although the impact of these adaptations on women's social capital disadvantages is unclear based on existing evidence. Ibarra (1992) observed that women have more heterogeneous networks compared to men, a pattern that was driven by women's tendency to segregate their ties by function and gender; instrumental, work-related ties were formed with men but expressive, support-related ties were formed with other women. High-performing women are also more likely to possess strong, cross-boundary ties with other high-performing women (Ibarra, 1997), which would allow women to get around the problem of the dearth of high-status female leaders in any single firm. However, it should be noted that reviews of this body of literature have found inconsistent evidence for systematic gender differences in network structure (Woehler et al., 2021).

Problematically, women do not see the same returns even if they do possess the necessary connections (Woehler et al., 2021); women do not fully mobilize resources associated with their ties to influential organizational members (McGuire, 2002). To this point, Lin (2000) theorized that women, and other individuals who belong to disadvantaged or stigmatized social groups, experience a social capital “return deficit” (p. 790), such that they experience fewer benefits from the same connections compared to men. Recent work on cognitive network activation provides converging evidence for gender differences in social capital mobilization. A cognitively activated network is defined as the subset of an individual’s entire network that is brought to mind when considering whether/how to mobilize certain relationships for professional and personal gains (Brands, 2013; Krackhardt, 1987; Smith et al., 2016). Individual characteristics and contextual factors, such as negative affect, low status, and the threat of job loss, have been shown to induce a “winnowing response”: individuals will recall smaller and denser portions of their network compared to larger and sparse portions (Shea et al., 2015; Smith et al., 2016). This is problematic because broad and sparse networks that are characterized by many weak ties are superior in terms of workplace and career advantages (Burt, 1982; Granovetter, 1995). Although dense networks and strong ties do offer some advantages (Coleman, 1988; Hansen, 1999), women’s careers typically do not benefit from highly cohesive networks (Lutter, 2015).

An important distinction between prior work on cognitive network activation and social capital is that both literatures focus on understanding accessing, activating, and mobilizing social capital for one’s own gain. However, sponsorship is about mobilizing social capital to benefit others. The dynamics surrounding decisions to provide referrals to peers and junior colleagues offers relevant evidence to the processes that inform decisions to engage in sponsorship. Referrals are consequential for professional success: job candidates with referrals are more likely to be hired, and perform better once hired, compared to those without referrals (Brown et al., 2015; Burks et al., 2015; Elliott, 2001; Merluzzi & Sterling, 2017). However, much like sponsorship more generally, far more is understood about how candidates receive referrals, and the impact that referrals have, than about individuals making decisions to provide referrals (Rubineau & Fernandez, 2013; Yakubovich & Lup, 2006). Initial evidence shows that individuals consider

potential reputational consequences when deciding whether to provide referrals to their peers: Smith (2005, 2010) observed via an ethnography that individuals belonging to stigmatized and lower status social groups were less likely to refer others who belong to their same group, out of concern that the referral could negatively impact their own reputation (see also Duguid et al., 2012; Lewis & Sherman, 2003).

Taken together, gender disparities in social capital access and suggestive evidence of differences in social capital mobilization point to the possibility that male and female sponsors will think differently about using their social capital in sponsorship. Social capital is a particularly hard-earned and scarcer resource for women compared to men. This might influence how female leaders who have finally ascended to high-status positions and have the necessary social capital make decisions about whether and for whom to mobilize it (Byun & Sternquist, 2012; Lynn, 1991).<sup>56</sup> This possibility is bolstered by evidence of gender differences in risk aversion in financial and investment decisions (Charness & Gneezy, 2012; Gneezy et al., 2003). If sponsors do see sponsorship as an “investment,” male and female leaders may engage in different decision-making processes and choices about those investments. What remains unclear is what would constitute a conservative or riskier “investment” in sponsorship.

### **Societal Gender Roles and Implications for Sponsor Decision Making**

Beyond network-based disadvantages, societal gender roles, gender norms, and internalized gender stereotypes also provide reason to anticipate gender differences in sponsor decision making. Societal gender roles are collections of traits, qualities, and behaviors that are considered “gender appropriate” for either men or women to display based on their biological sex (Abele, 2003; Diekmann & Eagly, 2000; Ridgeway, 1997; Williams & Best, 1990).<sup>57</sup> Men are expected to ascribe to the masculine gender role, which describes

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<sup>56</sup> One implication of these findings is that women are less likely to be in high-ranking and influential positions in organizations, which makes it less likely that they possess the social capital necessary to provide sponsorship at all. Certainly, it is worth asking whether the general underrepresentation of women in top-tier positions, and associated disparities in social capital, leads to gender differences in the ability and propensity to provide sponsorship? Answering this question would provide insight to the organizational and social processes that determine which individuals advance into positions that provide them with the rank, status, and influence necessary to provide sponsorship; gender differences in career advancement are therefore relevant to understanding gender differences in the propensity to provide sponsorship. Although this is key to understanding the larger phenomenon of gender differences in sponsorship, I treat these as antecedents to the phenomenon of interest in this paper. The focus of this paper is to create a framework to represent gender differences in how leaders decide to mobilize social capital in sponsorship, predicated on these leaders already holding positions with the minimally necessary rank, influence, and status to provide sponsorship.

<sup>57</sup> Despite changes in society over time, these gender role beliefs and gender stereotypes have remained remarkably stable (Heilman, 2012; Schein, 2001). Eagly and colleagues (2019) recently provided additional evidence that gender stereotypes are evolving

men as agentic; this includes an orientation toward achievement (i.e., ambitious, task-oriented), dominance (i.e., assertive), independence (i.e., self-reliant), and rationality (i.e., analytical) (Abele, 2003; Heilman, 2012). Women are expected to adhere to the feminine gender role, which describes women as communal, showing a high level of concern toward others (i.e., considerate, nurturing, relationship-oriented), collaborative, deferent (i.e., modest, respectful), and warm (Abele, 2003; Heilman, 2012). Traits and behaviors associated with societal gender roles inform gender stereotypes, which are widely held beliefs about the qualities that men and women do and should display, and those they do not and should not display (Broverman et al., 1972; Diekmann & Eagly, 2000; Heilman, 2012).

Men and women are socialized to adhere closely to the gender roles that are ascribed to their biological sex (Burn, 1996; Deaux & Kite, 1993; Eagly et al., 2000). Over time, gender roles are internalized and integrated into how men and women define, perceive, and describe themselves (Athenstaedt, 2003; Burn, 1996). As evidence to this point, preferences have been shown to be consistent with societal gender roles: women are more likely to aspire to careers that are consistent with the feminine gender role and are less likely to pursue stereotypically masculine jobs, tasks, and careers (Buser et al., 2014; Ridgeway, 2011). These preferences are learned over time from socialization, positive reinforcement for adhering to the feminine gender role, and barriers making it difficult to succeed in stereotypically masculine fields and roles; this is an example of constraints being converted into preferences (Correll, 2001, 2004).

To that point, women are less likely to engage in behaviors that violate expectations of the feminine gender role, such as self-promotion, self-nominations for career opportunities, and initiating negotiations (Bowles et al., 2007; Kang, 2014; Rudman, 1998). Adhering to gendered expectations is necessary to avoid social penalties, also known as backlash, that are activated when individuals engage in counter-stereotypical behavior. Women are labeled as cold and unlikable when they possess traits or behave in ways that are considered stereotypically masculine (e.g., assertive leadership, advocating for one's own advancement), which has consequences for their careers (Heilman & Okimoto, 2007; Okimoto & Brescoll,

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slightly over time, such that the gap in perceived agentic-ness between men and women is narrowing. However, the gap in perceived communality between men and women is expanding (A. Eagly et al., 2019).

2010; Phelan et al., 2008). Men are also penalized for engaging in stereotypically feminine behavior: overly modest men or those who display strong signals of prioritizing family caregiving responsibilities above their career advancement are viewed negatively (Moss-Racusin et al., 2010; Rudman & Mescher, 2013; Weisshaar, 2018). Thus, both men and women are incentivized to present themselves and behave in ways that are consistent with their gender role.

The constraints imposed by societal gender roles and gender norms are fundamental to how men and women make decisions and behave, making them critical to understanding sponsor decision making. Gender roles are likely particularly relevant to how men and women perceive their role in sponsorship. The two different ways that sponsorship can be framed can be recast as being in (mis)alignment with feminine versus masculine gender roles. For instance, I have argued that one possibility is that sponsorship is seen as a prosocial behavior in which sponsors are mobilizing social capital, which is a valuable resource, to help others. This could, in turn, be labeled as a more communal, other-oriented, and nurturing approach that is consistent with the feminine gender role (Abele, 2003; Heilman, 2012). Alternatively, I have argued that sponsorship can be viewed as an opportunity to make an investment of social capital in protégés that is intended to generate returns. This perspective is more self-interested and agentic—qualities associated with the masculine gender role and inconsistent with expectations of women’s behavior (Abele, 2003; Heilman, 2012).<sup>58</sup> However, how societal gender roles lead to different self-perceptions in sponsors and influence their decisions to provide sponsorship has not been directly examined.

### **Methodology**

To study how men and women make decisions about providing sponsorship, I conducted qualitative research at a multinational professional services firm that provides consulting and auditing services (henceforth, “ConsultCo”). Although the processes that inform how male and female sponsors make decisions about mobilizing social capital and providing sponsorship are not well understood, existing work

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<sup>58</sup> There is inconsistent evidence of gender differences in mentorship, which is a related but distinct form of workplace and career support (Allen, 2007; Allen et al., 2004; Ragins & Cotton, 1993, 1999). There is no evidence of gender differences in how mentorship is perceived by mentors, which introduces questions about whether societal gender roles will or will not impact sponsor decision-making and behavior.



on gender differences in networks, social capital, and societal gender roles is suggestive of differences in how men and women think about spending their social capital and their roles as sponsors. An inductive approach is therefore appropriate because qualitative research methods are well-suited to examining complex social and interpersonal processes that are understudied or not well understood (Corbin & Strauss, 2008; Eisenhardt et al., 2016; Rivera, 2012, 2017; Yin, 2003).

It should be noted that there is prior research on mentorship, but because this work examines mentorship and sponsorship behaviors simultaneously, it is difficult to disentangle what processes inform decisions to provide mentorship versus sponsorship (see Allen et al., 2004 for similar observation; Kram, 1985). For example, scholars' examinations of mentor decision making and behavior have yielded inconsistent results regarding gender differences, making it unclear whether male and female leaders do differ in how they make decisions about mentorship (Allen, 2007; Ragins & Cotton, 1993, 1999). For these reasons, coupled with the fact that sponsorship is distinct from mentorship because it involves the mobilization of social capital, scholars have called for sponsorship to be considered a related but ultimately distinct form of career support (Giscombe et al., 2017; Ibarra et al., 2010). This opens several questions about what existing knowledge about the dynamics of mentorship applies to sponsorship. Thus, examining sponsor decision making using a qualitative approach is appropriate because it allows the unique dynamics of sponsorship decision making to emerge.

I conducted interviews with equity partners at ConsultCo. Equity partners are high-ranking leaders who manage a portfolio of clients and project teams that are staffed by junior and mid-level associates. They are an ideal sample to examine gender differences in sponsor decision making because their rank and responsibilities make it likely that they have prior experience managing junior employees and engaging in sponsorship. In-depth interviews are the superior qualitative method if the goal is to examine individuals' subjective interpretations, perceptions, and social and relational processes (Yin, 2003). Such goals are in the spirit of this paper's research question, which concerns how male and female sponsors make decisions about providing sponsorship, which encompasses perceptions of sponsorship, their social capital, and their evaluations of potential protégés. Allowing partners to discuss sponsorship and their decisions about

providing it in their own words is critical to observing how leaders naturally conceptualize sponsorship. Observational field work can offer insight into decisions via patterns in (observable) behavior, but it is less well suited to capturing participants' psychological processes and self-reflections.

The weaknesses of a qualitative approach are relatively smaller sample sizes and generalizability concerns. Smaller qualitative samples are considered acceptable if the researcher's primary goal is to examine mechanisms and interpersonal processes that are not well understood, understudied, or difficult to observe using traditional quantitative methods such as archival data, organizational surveys, and experiments (Corbin & Strauss, 2008; Small, 2009). Sponsorship is a key part of informal promotion and career advancement processes at firms, making it unlikely that these behaviors would be systematically recorded in firm records. Though sponsors could be asked to self-report their experiences via questions in a survey, such an approach would constrain participants to the researcher's own framework of sponsorship (i.e., this would inform survey item design choices). These constraints might misrepresent sponsors' natural tendencies and decision-making processes, thereby failing to capture the rich details of the psychological decision-making process that are most likely to emerge through conversations. This is particularly important considering the aforementioned distinction being drawn between mentorship and sponsorship.

Qualitative methods can also be limited in terms of generalizability (Polit & Beck, 2010).<sup>59</sup> My examination of cases of equity partners in a single consulting firm does introduce concerns about transferability of these findings to different firm contexts and industries, although this is a familiar limitation to quantitative researchers examining individual behaviors in the context of a single firm. A major benefit of this approach is that it holds constant situational and contextual factors related to sponsorship that differ across firm contexts, such as differences in informal advancement processes and norms about

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<sup>59</sup> Methodology scholars have argued for the importance of considering different types of generalizability when evaluating the validity of quantitative versus qualitative research. Qualitative research does inherently lack statistical-probability generalizability, which speaks to its ability to generalize from sample to populations, because of smaller sample sizes (Firestone, 1993; Polit & Beck, 2010). However, statistical-probability generalizability is a less useful metric for evaluating qualitative research because it is inconsistent with the goal of qualitative research (Polit & Beck, 2010). Qualitative methods are conducted with the goal of conducting a contextualized examination of a phenomenon, with a particular focus of its depth and nature. Qualitative methods can be considered generalizable in terms of analytic generalizability (i.e., generalizable to broader constructs or theory) or transferability generalizability (i.e., generalizable across cases) (Firestone, 1993; Polit & Beck, 2010).

the provision of sponsorship, which could obscure the phenomenon of interest. The core goal of qualitative methods is to elucidate mechanisms and processes that are currently understudied and not well understood, meaning that the goal of this first study is to achieve depth, which informs the development of a conceptual framework that can be quantitatively tested and extended with alternative methods in future research.

### **Recruitment, Sample, and Data Collection**

Participant recruitment and data collection occurred in Spring 2020.<sup>60</sup> To aid recruitment, ConsultCo first compiled a master list of equity partners who the firm's legal team determined were eligible to participate in the study, which comprised a list of several hundred partners who had been working at the firm for at least one year. Confidentiality was the firm's primary concern, and non-ConsultCo employees, such as myself, were not permitted access to this master list. ConsultCo used the master list to compile a quasi-random sample of 100 partners from which I could recruit. I worked with ConsultCo to sample for range (Small, 2009), which ensured that the pool of potential participants was representative of the firm but also as gender balanced as possible. Sampling for range is considered a more reliable sampling technique compared to random sampling if a truly random sample will not provide adequate representation of all subgroups that are relevant to the research question (Small, 2009). ConsultCo's leadership is male dominated: women represent approximately 20% of the firm's equity partners. This ratio is consistent with other organizations in the consulting industry and the corporate world more broadly (Catalyst, 2020; Marriage, 2019; Pew Research Center, 2015; Warner & Corley, 2017). Thus, a truly random sample ran the risk of being heavily male dominated, which would limit the opportunity to collect enough data to understand both men's and women's perspectives on sponsorship. To address this, ConsultCo agreed to

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<sup>60</sup> These interviews took place remotely during the beginning of the COVID-19 pandemic. There is little concern that these circumstances impacted my results, for several reasons. First, these partners work remotely on a regular basis due to the high amount of travel that is required for consulting work. This suggests that the national shift to remote work will have been relatively less novel for these participants compared to the average American. Although there is some work in which individual characteristics such as negative affect and threat of job loss can lead to a "winnowing effect" in cognitive network activation in individuals who are activating resources for their own career gain (Shea et al., 2015; E. B. Smith et al., 2016), no empirical evidence shows this same effect when social capital mobilization is done on behalf of others via sponsorship. There was also no evidence based on interview data that participants were experiencing unusually negative affect or were under threat of job loss.

oversample from the firm's pool of female partners to create a potential participant pool that was slightly more gender balanced than the firm's overall partner pool. The final pool was approximately 30% female.

ConsultCo's potential participant pool of 100 partners was divided into two batches, and 50 partners were randomly assigned to each batch (small adjustments were made after random assignment to ensure that each batch was approximately 30% female like the overall pool). The firm requested that recruitment be done in batches to ensure that participant recruitment did not exceed the firm's approved maximum of 50 interviews. If Batch 1 had a low response rate and more data was needed, recruitment would move to Batch 2, and so on. ConsultCo agreed to create additional participant pools of equity partners to recruit from, if necessary. To begin recruitment, all partners included in Batch 1 were sent an email from the project's liaison within the firm that included information about the study, its approval by the firm's legal department and leadership (exact wording was subject to firm approval), and language clarifying that participation was completely voluntary. This was immediately followed by a second email sent directly by the researcher that included additional information about the study, specified that participation was voluntary and without compensation, and that any findings would be shared with the firm only in aggregate (language approved by IRB). A blank consent form was also attached to the researcher's email to prospective participants. In both of these emails, the study was described as involving 30-minute interviews about partners' experiences working at the firm and advancing "top talent" within the firm.

Following this initial round of emails, 32 partners volunteered to participate (64% response rate).<sup>61</sup> A second batch of recruitment was not conducted because theoretical saturation was reached after about 30 interviews; this is generally considered to be the point at which additional data collection has diminishing returns; no additional themes, concepts, or insights are gained from new data (Charmaz, 2001, 2003; Glaser & Strauss, 1967; Morse, 1995; Strauss & Corbin, 1998b). Two additional interviews were conducted after

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<sup>61</sup> Please see above discussion about relatively smaller sample sizes being a known weakness of qualitative methods but considered appropriate to study complex interpersonal phenomena (Small, 2009; Yin, 2003). As a reference point, several recently published qualitative papers in top management journals comprise comparable sample sizes (e.g., Beck & Plowman, 2014; Cha & Roberts, 2019; Greguletz et al., 2018).

theoretical saturation was reached, because they had already been scheduled.<sup>62</sup> The final sample of 32 partners was 40.6% female and included an average firm tenure of 12.5 years. Please see Table 3.1 for additional details about the final sample.

All interviews were conducted remotely by phone or a video conferencing platform (e.g., Zoom) because partners were geographically dispersed across the United States. A blank consent form was emailed to participants again the day before the interview and reviewed with participants at the beginning of each interview, at which point participants provided verbal consent for participation and use of deidentified quotes from their interview in the research write-up.<sup>63</sup> All interviews followed the same protocol, which was developed based on the phenomenon of interest and adjusted based on the results of two pilot interviews, with one mid-level associate and one equity partner at ConsultCo (see the appendix for full interview protocol). The final interview protocol began by asking participants to share their professional background and their role at ConsultCo. This was followed by questions about their perceptions of what it takes for junior employees to be successful at ConsultCo and their experiences “advancing top talent.” Participant comments and responses were followed by probing questions that were intended to clarify statements and dive deeper into interesting comments. The term sponsorship was intentionally omitted from the interview protocol to avoid priming or leading participant responses. Sponsorship has started to be discussed in popular press as it relates to diversity, equity, and inclusion efforts in organizations (e.g., Hewlett, 2013b; Ibarra et al., 2010). Introducing the term sponsorship could have primed participants to think about providing sponsorship with that goal in mind, which would have defeated the goal of examining how male and female sponsors naturally think and make decisions about providing sponsorship.<sup>64</sup>

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<sup>62</sup> Although theoretical saturation was reached at ~30 interviews, additional data collection was also limited due to firm access being reduced. These interviews were conducted as one study that was part of a multi-study collaboration conducted between the university and the firm to examine various factors that contribute to employees’ career advancement in the firm (i.e., other researchers were examining alternative data while these interviews were being conducted). Upon completing 32 interviews, we discussed additional data collection via a second batch of recruitment, but ultimately the firm did not approve an additional wave of recruitment, because the university’s project agreement with the firm had ended.

<sup>63</sup> Three participants requested that their responses not be included in the write-up due to confidentiality concerns. These interviews were still coded, and findings from these interviews informed the inductive thematic analysis. However, the coded statements from these interviews are not included in the main manuscript or table of supporting evidence in the appendix to adhere to the participants’ wishes.

<sup>64</sup> Please note that some participants naturally brought up the term sponsorship or referred to sponsorship behaviors as “coaching” and “developing talent.” There were some instances when participants described behaviors that would be categorized as mentorship

Interviews lasted between 30 and 45 minutes, were audio-recorded, transcribed word-for-word by a research assistant, and deidentified (i.e., each recording and transcript was assigned an ID code).<sup>65</sup> Interview transcriptions were supplemented by notes taken during each interview, which captured additional verbal cues such as pauses, tone, and other observations of participant behavior that informs the interpretation of participant statements and could be lost through the transcription process. Following the traditional approach to Grounded Theory and inductive qualitative work, I made notes and identified preliminary themes as they emerged during interviews; data collection overlapped with analysis (Charmaz, 2003; Glaser & Strauss, 1967; Rivera, 2012, 2017; Strauss & Corbin, 1998b). The participant's gender was recorded based on the participant's self-presentation and name. ConsultCo's legal department prohibited the project's liaison in the firm from sharing employees' background information; therefore, I asked participants to volunteer this information, if they were comfortable (all participants did share this information).

### **Inductive Analytic Strategy**

After data collection was complete, analysis and coding of transcriptions followed a stepwise procedure. In early stages, my understanding of what the qualitative data contained was informed by my experience conducting the interviews (Corbin & Strauss, 2008). The deidentification process of labeling interview transcripts with an ID code blinded the participant's gender identity; however, these transcripts cannot be completely blinded because I collected the data and might recall aspects of the conversation. But blinding the transcripts during initial coding rounds minimized the possibility that knowledge of the research question influenced the emergence of specific codes. Overall, inductive qualitative analysis occurred in two major stages, which are described below. The program NVivo was used to manage transcripts, memos, and codes simultaneously and facilitate comparisons across interviews.

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by management researchers, rather than sponsorship (e.g., providing social support, skills development, and training). In these instances, the interviewer refocused the conversation to being about "fostering the career advancement of junior employees" through "informal career support behaviors." A couple of participants consistently conflated sponsorship and mentorship behaviors in their descriptions, but this was not a widespread phenomenon, nor did it appear to be linked to particular participant characteristics. Analyses and coding focused on described sponsorship behaviors, as identified by the researcher.

<sup>65</sup> Interviews were initially described as only 30 minutes, but participants often wanted more time to share their experiences. I did not interrupt participants or end the session until participants felt they had shared all that they wanted to share.

**First stage of analysis.** To begin, all transcripts were read line-by-line twice, and short memos were generated for each transcript. Memos included a combination of notes that were initially taken during the interview and summary comments about the transcript made during these initial reading (Strauss & Corbin, 1998b). This stage of analysis is intended to further immerse the researcher in the data and launch the identification process of relevant concepts (Charmaz, 2003; Glaser & Strauss, 1967; Strauss & Corbin, 1998b). A third read-through of transcripts included comprehensive line-by-line coding to identify all concepts represented in the data (Strauss & Corbin, 1998c). Two additional line-by-line read throughs were conducted to ensure that all concepts were captured and coded. Coded concepts were subsequently consolidated into meaningful categories through an iterative process of comparing across codes. This process is part of the open coding process, which is intended to be generative and no efforts should be made to connect identified concepts to existing theoretical frameworks or categories from previously conducted research (Corbin & Strauss, 2008; Strauss & Corbin, 1994, 1998c).

**Second stage of analysis.** The second round of qualitative analysis involved an iterative process of reading interviews, further consolidating and refining coding categories, and paring down categories to focus on the phenomenon of interest (Miles et al., 2014; Strauss & Corbin, 1998b). More specifically, first-order codes and categories, which represented all concepts that emerged from the data during analysis, were streamlined to focus on concepts that directly related to how sponsors made decisions about providing sponsorship. This included conceptualizations about sponsorship, self-described sponsorship behaviors, perceptions about mobilizing social capital, and evaluating potential protégés. During this process, it was revealed that participants did sometimes use the terms coaching, sponsorship, mentorship, and developing talent interchangeably but not always accurately, based on the scholarly definition of these terms. I focused my analysis on descriptions of sponsorship behaviors as indicated by prior research (Hewlett, 2013a; Ibarra et al., 2010) and any behaviors that would have required the mobilization of social capital in order to be executed, but I took note of any occasions when participants described the sponsorship behavior using a different term to ensure the analysis did not conflate the provision of sponsorship with that of mentorship. This stage of analysis led to the development of a coding dictionary, which facilitated more methodical

coding of transcripts. At this point in the analysis process, transcripts were unblinded to reveal participant gender, and I engaged in axial coding, which involves linking codes and categories to broader themes and existing constructs (Strauss & Corbin, 1998a). The following section includes a summary of the results of this inductive analysis and a discussion of the findings.

### **Analysis and Discussion of Findings**

Analyses revealed widespread agreement about the importance of sponsorship to the career advancement of the junior employees working at ConsultCo. Problematically, the most effective sponsorship tactics, as described by partners, were also perceived to be costly for the sponsoring partner. Despite this, partners were willing to provide sponsorship given the right circumstances, although men and women displayed a different decision-making framework to evaluate whether a given situation was the right circumstance. In that sense, there was little evidence that the structural factors that create gender disparities in access to social capital led to gender differences in willingness to spend that social capital in sponsorship. However, inductive analyses informed the development of two distinct mental models that captured how male and female sponsors made decisions about whether and for whom to provide sponsorship.

As Figure 3.1 demonstrates, lower-order themes revealed two major dimensions of sponsor decision making: motivation to provide sponsorship and criteria used to select potential protégés. Patterns in themes across these dimensions of sponsor decision making revealed two distinct mental models of sponsorship. Sponsorship was framed either as the opportunity to invest social capital in high-potential protégés and generate returns that would benefit sponsors in the future or as the duty of a responsible leader to use social capital as a way to help deserving protégés advance in their careers. Figure 3.2 provides additional evidence by showing how codes for each of these sub-themes were represented across male and female participants. Men were more likely to display the investment-oriented mental model than women; any short-term costs associated with providing sponsorship were framed as an investment that could generate returns for sponsors in the long-run, if the investment was made with a high-quality protégé. By comparison, women were more likely to display the duty-oriented mental model, which framed paying the



short-term costs associated with providing sponsorship as the right thing to do for deserving junior employees.

Supporting evidence is discussed in detail in the following pages, which include select quotes from participants. The quotes included here are not exhaustive but are illustrative of the evidence that informed the development of the conceptual framework (see the appendix for additional qualitative evidence). For ease of explanation and clarity for the reader, I followed the widely used practice of assigning pseudonyms to deidentified participants (e.g., Rivera, 2012, 2017). Table 1 includes a comprehensive account of all study participants, their gender, firm tenure, ID codes, and assigned pseudonyms. The gender of the protégé was not integrated into this analysis due to a lack of data. Partners frequently used plural pronouns and omitted names of staff for confidentiality reasons; only a few indicated the protégé's gender (these are noted below). This is undoubtedly a relevant factor in the sponsorship process and an important direction for future research.

### **The Perceived Cost of Sponsorship**

Work at ConsultCo is team-based, with each team including junior and mid-level associates and the leading partner. Projects are linked to specific clients in partners' portfolios, and teams are launched and disbanded from project to project; the length of projects varies considerably. To get background and context for how teams were constructed, I conducted two pilot interviews and had conversations with firm leadership that were serving as liaisons for the research project. This revealed that the firm encourages partners to use an internal dashboard for project assignment, which includes each staff member's availability, performance metrics, training, skill sets, and project history, including which partners they have worked with. These conversations provided the impression that staff were assigned predominately based on availability, yet interviews with partners revealed that their staffing choices were far more intentional. Partners' staffing decisions were informed by their prior working experience with staff, their skill sets, performance metrics, and the word of other partners. Thus, demonstrating strong past performance was necessary but not sufficient for junior employees to be successful via the formal

(dashboard) and informal (word of partners) project assignment processes. Developing a strong intra-firm network of ties with partners was seen as critical to junior employees' success at ConsultCo.

This finding did not differ by partner gender. Both men and women highlighted the importance of the internal network. Diana, a partner who has been working at the firm for about 6 years, explained that "building a network, building the right network" inside ConsultCo was crucial to success because "it's the internal network...that is where you get the opportunities" (Subject 23). Carter shared that his impression is that the internal network is a "lifeline...for getting staffed and having the opportunities." (Subject 13). Ben supported these assessments and shared that it was his opinion that the "[internal] network is your most important asset," even though he noted a tendency among staff to underestimate its importance:

*"One of the things I tell all of our staff is that people focus so much on their external network, you know, how many clients I've met with this week, how many relationships have I built on LinkedIn with clients, that they forget [about the internal network]. And my experience has been that your internal network at [ConsultCo] is actually the thing that will carry you through your career."* (Ben, Subject 18)

It was widely held that junior employees' careers are "overly influenced" by their internal network (Caleb, Subject 2) because the internal network impacts project staffing choices and opportunities to work with influential partners.

Being placed on the right projects, which were those associated with high-status clients and/or influential partners, was considered important for boosting visibility, because developing working relationships with partners opens up the opportunity for those partners to provide sponsorship. Although not always in that term, male and female partners acknowledged that having a champion for one's advancement is necessary for success at ConsultCo; partners who have the necessary "political clout...[can] lend their credibility" to talented junior employees (Samantha, Subject 6) and this "influences who gets promoted and who doesn't" (Michael, Subject 4). Dana, a highly tenured partner, shared her opinion that "in any company there are going to be people who are more influential in getting things done...just the nature of business, I think that happens here and you need to have the right people who know you" (Subject 5). She emphasized that at ConsultCo, partners help ensure "[junior employees are] put on the right projects and getting the right opportunities" (Dana, Subject 3). Examples of the sponsorship that partners provide

are consistent with those discussed in prior research (Ibarra et al., 2010), including talking up the junior employee's skills to other partners, advocating for the junior employee to be placed on high-status projects that are managed by influential partners, advocating for the junior employee to be placed on an accelerated promotion track, and boosting junior employees' visibility with clients. Keith, who has been with the firm just shy of 20 years, explained his approach:

*"I think the central theme would be just putting people in opportunities that have high visibility with other partners and with other partners that have weight, that can help move the needle on career advancement. That's really the one thing any partner can do...that's the most critical component. It's giving that person the opportunity with that visibility. But then also reaching out...to those other partners on that project to truly talk-up and set the expectations of, 'this person is great'...And then that person obviously has to deliver on it...There's obviously a career coaching in terms of thinking how do you build additional skills and that kind of stuff...but it's really about putting them in opportunities to showcase themselves." (Keith, Subject 9)*

There was consensus that the most effective tactic to fast-track talented junior employees' career advancement was to help build their internal network by lobbying other partners to include specific junior employees on their projects. Working on different projects with different partners provides the opportunity for junior employees to showcase their skills and capabilities to other partners, which facilitates the development of a strong working relationship and increases their visibility.

However, this tactic presents a predicament. Men and women shared that they felt they were giving away a valuable resource that could boost their own performance when they advocated for talented staff to work with different partners. This perceived "cost" is tied to the firm's incentive structure, which is oriented around the partner's performance, as Connor explains: "from a partnership level, the compensation is tied to revenue" and partners' "primary [performance] measure mechanisms are the amount of revenue" that partners bring in (Subject 16). Diana agreed that ConsultCo "rewards people that have the biggest numbers" (Subject 23). Advocating for talented staff to be placed on different teams with different partners was best for staff careers, but partners believed it came at the possible cost of the sponsoring partner's own performance, because those junior employees would no longer be working on the sponsoring partners' own projects. Several partners acknowledged that this incentive structure, combined with a firm culture that

valued high performance above all else, could be detrimental because it encourages partners to prioritize their own performance:

*“At the end of the day, when I look at colleagues, you can have the worst behavior...they’d say that guy can’t be a leader, but they put big numbers on the board, they’re fine. Nobody ever says a word. Because while we will say, you know, our people are our biggest asset, most important, we need to build the next generation, there really is no incentive from a professional perspective for doing that.”* (Diana, Subject 23)

Michael explained that “partnership incentives, partnership metrics do not reward a partner for helping a person who is talented leave their box and go work with someone else” and “there’s no tangible reward for doing that” (Subject 4). Even Melanie, who had been hired at the partner level within the year, had already observed this aspect of ConsultCo’s culture. She explained that, ideally, “the responsible partner allows for a variety of experiences, which means a variety of partners to work with” (Subject 25). But she likened talented staff to resources when she explained that “partners love to hoard resources, sometimes to the detriment of the resource” (Melanie, Subject 25).

The competitive culture and performance-based incentive structure may have made the potential cost of sponsorship to the sponsoring partner particularly salient.<sup>66</sup> Incentive structures are known to impact interpersonal processes in the workplace above and beyond the individual performance these programs are designed to incentivize (Deckop et al., 1999; Jenkins Jr. et al., 1998). These qualitative findings offer preliminary evidence that incentive structures are likely to also impact how leaders perceive and ultimately decide how to support junior employees. The findings are also reflective of the general perception that sponsorship is costly because it requires the expense of social capital, which is a valuable resource (Bourdieu, 1986; Fernandez et al., 2000). Evidence of gender disparities in social capital was suggestive of potential differences in how men and women perceive their social capital (Brass, 1985; Ibarra, 1992, 1993; Lin, 2000; McDonald, 2011; McGuire, 2002), with one possibility being that women were more likely to

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<sup>66</sup> One possibility is that this culture is idiosyncratic to ConsultCo, which reduces the generalizability of evidence of how that particular culture influences sponsor decision making. Though I concede that the highly competitive nature of the firm’s incentive structure and culture does likely magnify the costliness of sponsorship in the mind of partners, this type of working environment is fairly common. Incentive structures that focus on individual performance and organizations that base at least part of an employee’s pay on performance are common across a range of industries (e.g., Gerhart & Fang, 2014; Jha, 2013; Larkin et al., 2012). This evidence makes it likely that these findings will generalize to a wide range of firms and employees.

see their social capital as a scarce resource that would influence their decision-making process as sponsors (Byun & Sternquist, 2012; Lynn, 1991). However, qualitative analyses did not provide support for this claim; there was no evidence of gender differences in how the cost of sponsorship was perceived.

Despite the perceived trade-off between the partner's own performance and the sponsorship tactics that partners recognize as most effective at ConsultCo, partners did not appear reluctant to provide sponsorship. Partners instead engaged in a risk assessment process to decide whether and for whom to provide sponsorship; under what conditions is sponsorship perceived as worth the cost? Inductive analyses revealed patterns across partner gender in these decision-making processes: two mental models of sponsorship were employed, which encapsulated partners' motivations for providing sponsorship and how they evaluated potential protégés.

### **Mental Models for Sponsor Decision Making**

Mental models, which are the "lenses through which we see the world" (Chermack, 2003, p. 410), are symbolic representations of the environment that impact decision making, choices, and actions (Doyle & Ford, 1999; Forrester, 1961; Weick, 1979, 1985). Mental models are micro-level, psychological frameworks that are based on and can vary by an individual's beliefs, biases, values, and experiences, which in turn influence an individual's decision-making processes, choices, and behaviors (Gary & Wood, 2011; Gavetti & Levinthal, 2000; Hodgkinson et al., 1999; Porac et al., 1995; Porac & Thomas, 1990; Schwenk, 1984). To date, mental models have not been applied to the provision of sponsorship or the mobilization of social capital.

Analyses revealed two mental models that informed men's and women's decision making as sponsors: sponsorship was framed either as an investment of social capital that has the potential to generate returns in the future and benefit sponsors in the long-run, or as the duty of a responsible leader to use their social capital to help deserving protégés succeed. These mental models are informed by two dimensions of sponsor decision making (see Figure 3.1): motivation for providing sponsorship (as a benefit to the sponsor vs. a responsibility to the protégé) and signals of high-quality protégés (indicators of potential/fit vs. commitment). Each of these dimensions is constructed based on lower-order codes, which are indicated by

the themes listed in each of the vertical boxes. Figure 3.2 provides supplementary evidence by visualizing how codes varied by partner gender: codes of statements that indicated a sponsor benefit motivation were predominately associated with male partners, but codes of statements that indicated a protégé responsibility motivation were predominately associated with female partners.

**Sponsorship as an investment.** One mental model that emerged from inductive analyses framed the provision of sponsorship as an investment with the opportunity for a return on investment. In this framework, social capital was treated like a valuable resource that should be invested in high-quality protégés—that is, those who have the potential to succeed and perform well in the future—which in turn produces reputational benefits for sponsors. Individuals who display this mental model see the sponsor’s and protégé’s outcomes as linked; sponsorship boosts junior employees’ career advancement, which generates reputational benefits and the potential for future reciprocity to the sponsoring partner. This highlights the importance of identifying a good “investment.” investment-oriented sponsors identify protégé quality based on signals that are viewed as predictive of future success (the firm specific term “agility,” initiative, and fit). Men were more likely to display an investment-oriented mental model than women.<sup>67</sup>

**Future benefits as motivation to provide sponsorship.** Although male partners did acknowledge the potential cost of providing sponsorship, it was framed as a short-term cost that should be placed in the larger context of potential long-term gains. Cameron, a partner who has been working at ConsultCo for 25 years, explained that developing and fostering the advancement of junior employees is ultimately in partners’ best interest:

*“You have to develop talent. It’s the only way to get things done at these very large companies we work with. And if you don’t think the incentives are built around that, you know, the incentives are built to have an impact. And the more talent you have around you, the bigger impact you have...the more you develop those high performers, the more the contributors can contribute. And if you do that, you’ll get rewarded yourself.”* (Cameron, Subject 21)

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<sup>67</sup> Although this tendency to describe sponsorship as an investment was displayed predominately by male partners, analysis did reveal select instances where female partners adopted a similar framework. For instance, Dana, who has been working at the firm for 20 years, described that a female junior employee whom she had been sponsoring and working with has “so far been a good investment” because “she seems willing...to do whatever it takes” (Subject 3). This provides some evidence that the investment-oriented framework was not exclusively adopted by men. However, it is worth noting that the “investment” that Dana speaks of is discussed within the context of the junior employee’s high effort.

Sponsorship was perceived to be inherently self-interested because of its potential to boost partners' own performance and generate reputational benefits for sponsors. Derek, who has been at ConsultCo for 18 years, shared that it is critical to develop talent "that help support you [in the work]" because "it's all about [the] leverage" that these high performers provide for partners (Subject 1). In that way, talented junior employees were treated as a competitive advantage. Derek went on to share that when a talented junior employee he sponsored moves up, he feels that "I'm successful for making him successful." Charlie endorsed this perspective and shared that talented and successful staff "make us all look better" (Subject 22). He explained that there is reciprocity, such that "[they] do good work for [us], [we] put [them] in positions to succeed" (Subject 22). This makes providing sponsorship "a true win-win" for both partners and junior employees (Derek, Subject 1).

A common theme that emerged was the perception of partners' outcomes being linked to those of their junior employees. This introduced the possibility of reciprocity in the form of improved partner performance that comes from working with talented staff and reputational benefits for partners who are associated with fast-tracked junior employees. Caleb explained that sponsorship is "inherently self-interested" and that partners should "push actively to get [high performers] promoted" because when his team is successful, "our win rate goes up" and that makes "my life a million times easier" (Subject 2). The potential for reciprocity can lead to the hoarding of talent (i.e., see description in prior section about the cost of sponsorship). Brandon observed "this behavior...where [junior employees] don't want to work for new partners" and postulated that it's because "[junior employees] want to stick to that group because they know they're thought of highly" (Subject 28). This suggests that junior employees also recognize that their outcomes are linked to partners; performing well increases the chances of the partner reciprocating in the form of sponsorship. Brandon went on to explain that "there are pluses and minuses" to this type of system, because although junior employees do not get "the diverse experience of working for a broader group," if "you [the partner] have a team that you know is working for you all the time, you invest in them in a greater way" (Subject 28). In this case, greater investment refers to the additional effort that partners make to give

their employees valuable opportunities that both develop their skill set and increase their visibility in the firm.

One way to contextualize men's tendency to focus on the potential for future benefits when deciding to provide sponsorship is regulatory focus and mindsets that influence goal setting, behavior, and performance in organizations. Regulatory fit theory argues that when individuals pursue goals and make choices, they have a tendency to adopt one of two perspectives, which are orthogonal: a promotion focus or a prevention focus (Gorman et al., 2012; Higgins, 1997, 2005). Those with a prevention focus are concerned with the presence of negative outcomes and make choices and behave in ways that minimize losses (Crowe & Higgins, 1997; Higgins et al., 1994; Idson et al., 2000; Righetti et al., 2011). Those with a promotion focus are oriented toward the presence of positive outcomes and, as a result, make choices and behave in ways that seek to maximize gains and pursue "wins" (Crowe & Higgins, 1997; Higgins et al., 1994; Idson et al., 2000; Righetti et al., 2011). Focusing on potential benefits that successful protégés can provide sponsors is oriented toward maximizing gains; this is consistent with a promotion focus. However, men's tendency to display the investment-oriented mental model that is consistent with a promotion focus is intriguing because there is little evidence of regulatory focus varying systematically by gender. This qualitative evidence for men's increased tendency to display an investment mental model of sponsorship suggests that regulatory focus is a potentially meaningful indicator for male and female sponsors' goal setting for mobilizing social capital.

Framing sponsorship as an investment of social capital that can generate returns, rather than a cost associated with providing sponsorship, also reflects the notion that social capital is like other forms of capital (Bourdieu, 1986; Fernandez et al., 2000). Thus, this evidence suggests that men make decisions about using their social capital similarly to how they make decisions about other valuable resources in organizations. The investment mental model is also consistent with Hewlett's (2013a) transactional framework for sponsorship, which presented it as a reciprocal relationship from which both sponsors and protégés can benefit. Hewlett (2013a) argued that sponsors do not make decisions about providing sponsorship out of a sense of altruism, but because it can help sponsors achieve their larger career goals.



These qualitative findings suggest that this transactional model of sponsorship is an incomplete picture of how sponsors conceptualize and make decisions about mobilizing social capital in sponsorship; men were more likely to be associated with a transactional decision-making process than women.

**Identifying good investments.** Men who displayed an investment mental model approached sponsorship like a typical investment and conducted a risk assessment to identify good and bad “investments,” who in this case are potential protégés. As an example, Caleb explained that he is willing to give anyone an initial opportunity if “someone comes to [him] and asks for an investment,” even if he is initially “skeptical that it’ll pay off” (Subject 2). He clarified that at the end of the day “you can’t invest in everybody” and to identify a junior employee who is a good investment, he subjects all potential protégés to a trial run on his projects, which helps him identify the “keepers”:

*“For the keepers, we say, ‘okay, now we’re going to invest more. Here’s your next project. Stay close to me. I’m going to take care of your metrics. I’m going to help you get better at this. In return, you’re going to work hard for me so it’s going to be good for both of us...I’m trying to maximize the yield on my investment.’”* (Subject 2, male).

Although Caleb used a trial-based approach, most described using signals to infer protégé quality; this is a common approach in organizations and labor markets to assess quality and make decisions in ambiguous and uncertain situations (Spence, 1974). There is a considerable amount of uncertainty in assessing future performance and potential, leading partners to rely on signals that they perceived to be predictive of the potential for high performance and success in the future. Connor validated this and explained that junior employees’ past performance was not a sufficient indicator of quality because “it’s not just a high performer versus a low performer...it’s high potential versus low potential” (Subject 16). More specifically, signals of initiative and innate abilities that demonstrated a natural “agility” for consulting work were seen as predictive of junior employees’ probability of succeeding at the firm over the long term.

The ability to recognize career-advancing opportunities was viewed as indicative of a good investment. Derek explained that high-potential junior employees “are willing to see the opportunities,” which is to their benefit, because “there’s a lot of opportunities and sometimes they’re right in front of you”

(Subject 1). The firm-specific term “agility” was used to describe this quality. Junior employees who were viewed as being high in agility were seen as not only competent, but also able to identify and pursue opportunities that facilitated their upward mobility in the firm. To be sure, male and female partners both valued highly competent junior employees, but men used language that suggested a stronger preference for investing in those who demonstrated a *natural* “agility,” which was seen as difficult to learn and teach. Those with these innate qualities were seen as a strong fit for the firm and the consulting industry more broadly, which framed them as a good investment. Keith expanded on this intangible quality that is highly predictive of success:

*“[They] are generally able to sit in most situations and be able to quickly understand the general context while not being an expert. And they are speaking in a manner that they know where to look, who to talk to, what the downstream implications are, connect the dots if you will. Agility, I think, kind of fits into that standpoint of, ‘hey, you’re about to think broadly and connect the dots...and put yourself into new opportunities and situations.’” (Keith, Subject 9).*

Carter explained that there is something that you can “tangibly feel” with high-potential protégés (Subject 13). He shared that a good litmus test is to reflect on his impression of a junior employee after a short conversation: “[after] about five minutes, you’re like, this guy really gets it, or she’s amazing, they clearly understand what we’re trying to do here” but “there are other times when you’re like, this person, I don’t understand what’s going on with that person, just fundamentally doesn’t understand why we’re here or what we’re trying to do” (Subject 13).

Other partners used different terminology but were ultimately talking about the same signals of high potential. For instance, Jack explained the importance of “functional flexibility” that the firm’s most talented junior employees tended to display:

*“I call it functional flexibility, that’s always going to be the first thing I look for. I think the best talent I’ve worked with has been people that go beyond bullet points. So they do all that stuff really well. But then also, ‘hey, there’s a problem with the financials, can you dive in and figure this out?’ I don’t have to show them exactly where to do it. They have the nose to figure that stuff out...we called them ‘best athletes.’” (Jack, Subject 24)*

“Best athletes” were junior employees who, above and beyond high performance, were seen as having a natural inclination for consulting work. They were described as “naturally curious about what’s going on around them” and “using that to take the next step” (Max, Subject 30), and possessing “the ability to be

agile and good at multiple things” and often “just one of those guys that you can just see it” (Matthew, Subject 17). Jack explained that these high-potential junior employees typically have “emotional intelligence and the ability to recognize the dynamics around stakeholders” (Subject 24). Max explained that “a lot of people don’t get it” and “they don’t ask the question” that is most important to ask in a given situation (Subject 30), which is suggestive of a poor fit for the firm and the work more generally. Thus, male partners tended to categorize junior employees into buckets of those who “get it” and those who do not.

A common quality among those identified as good investments was the ability to both identify career-advancing opportunities and take the initiative to pursue those opportunities without explicit direction from partners. Taking the initiative was seen as an indicator of a junior employee’s likelihood of being successful at ConsultCo over the long term and in a consulting career more generally. As an example, Kevin explained that when evaluating junior employees for sponsorship, he asks himself if “they’re taking the initiative” because “there’s an element of self-development that needs to be part of career growth and mobility” (Subject 10). Carter echoed this:

*“There are some people that simply, fundamentally don’t get it. And those are the ones who don’t take the opportunities...the ones who take the opportunities are the ones that get it, understand how things are going to work. And they understand it intuitively without having to tell them, that’s the important thing. (Carter, Subject 13)*

Matthew further explained that high-potential junior employees “take personal ownership of their development” and are “their own advocate for [their] career” in the form of “voice[ing] their opinion on what they want to do, where they want to specialize, where they want to get that experience” (Subject 19). However, he also noted that ConsultCo does have “people who are just quiet, show up, do their job, and even do [it] well” and are not “taking ownership” or “controlling their own destiny” (Matthew, Subject 19).

Failure to recognize career-advancing opportunities and take the initiative to pursue these opportunities was associated with a lack of drive and a poor fit, which was framed as a signal of a potentially bad investment for sponsors. Carter emphasized that, in his opinion, “if [junior employees] decide they don’t want to take advantage [of opportunities], that’s on them” (Subject 13). As a particularly illustrative

example, Carter recalled a story of a junior employee who failed to recognize and seize an opportunity that Carter argued would have boosted visibility:

*“When I started my career at [prior firm that subject worked redacted]...as an intern, I got invited to go golfing with some senior guy. They needed an extra golfer. They said, ‘hey, you golf?’ I said yes. They said, ‘hey, you want to go today?’ I was blown away. I was scared to death. But I realized like this was going to be five hours of me just with unfettered access to three really senior guys. I was like, yes, I’m going to go. I rearranged my schedule to do it. And then I sort of golfed with those guys on a regular basis...And after one golf day he said, ‘hey, you know, I have an opportunity that’s available in the communication group,’ he said, ‘why don’t you apply for the job’ [in describing how it led to a job opportunity]...There was one guy I was working with and I said, ‘hey we need 8 to go golfing. You golf a little bit right?’ And he said, ‘yeah but I don’t know. I got a lot going on today.’ I don’t really feel like you have a lot going on. I’m like, ‘what do you have going on that you wouldn’t want to spend 5 hours with the following guys?’ And he said, ‘yeah, it’s just not now. I just don’t feel like it.’ Just like, what? I told him he was an idiot. You’re making a huge mistake. If you don’t understand the value of that, then you’re not going to work well in a consulting environment.” (Carter, Subject 13).*

This sentiment was echoed by others, who emphasized that this intangible quality of good investments included skills that “some people just have naturally and then [for] some other people it takes years to develop” (Matthew, Subject 9). Charlie explained that these high-potential protégés are “extremely intellectually inquisitive and really wanting to go beyond...the problem, or requests from a client” and are looking “at what the big picture might be” (Subject 22). Brandon highlighted that the best athletes can “readily analyze diverse situations” and “come up with different analyses, different ideas, a different approach that gets to an answer or a different answer that you would expect going in, in the first place” (Subject 28). Seeing evidence of these qualities would prompt him to “recognize this person by either speaking out on their behalf, going to talk to HR, [or] going to talk to the head of [the] practice group trying to get them promoted on an accelerated basis” (Brandon, Subject 28).

Taken together, men evaluated potential protégés and identified good investments using several signals that were seen as predictive of potential for high-performance and success in the future. Assessing potential is difficult, so male partners looked for indicators of “agility,” initiative, and fit, which were viewed as predictive of a good investment likely to pay off over the long term. These signals were also taken as suggestive of whether potential protégés “fit” the firm and consulting work more broadly. Historically, fit captures the extent to which an individual is seen to be a good match for the qualities, traits,

and expectations that are associated with a given category (e.g., job, firm, or industry) (Jovanovic, 1979; Rivera, 2012; Tilly & Tilly, 1998). Fit is difficult to assess, which prompts evaluators to rely on signals and contextual cues that help them make inferences about fit and quality (Bangerter et al., 2012; Cable & Judge, 1997; Rivera, 2012). For example, hiring managers evaluate job candidates' fit for a specific position and the firm more broadly based on a range of signals such as educational and socioeconomic background, qualifications, gender, and race (Campbell & Hahl, 2020; Galperin et al., 2020; Rivera & Tilcsik, 2016). This qualitative analysis provides initial evidence that perceived fit is not only relevant to labor market evaluations but is also used through the course of subsequent evaluation rounds that occur within organizations, post hire. Notably, perceived fit appeared to influence men's decisions to mobilize their social capital to make an "investment" in high-potential protégés, indicating that junior employees' perceived fit can have an ongoing influence on their career advancement.

**Sponsorship as a duty.** A second mental model that emerged from qualitative analysis held that it was the duty of a responsible leader to spend social capital to help deserving junior employees succeed in their careers. Compared to male partners, female partners were more likely to display the duty-oriented mental model of sponsorship, which included prosocial motivations for providing sponsorship, such as a sense of responsibility, intrinsic motivation and values, and letting go of talent for the benefit of the protégé's career. Partners who endorsed the duty-oriented mental model identified high-quality potential protégés based on signals that indicated a high level of commitment, such as evidence of work ethic, effort, and coachability. These qualities that signaled a high level of commitment to working hard for the firm and succeeding in their careers were perceived as evidence that the cost that sponsors incur from providing sponsorship would be met with equivalent effort from the protégé.

***Responsibility to protégés as motivation to provide sponsorship.*** Melanie, who was hired in at the partner level about a year prior to conducting the interview, explained that providing sponsorship "is a value" and, "if you really care about someone," you should "want to make sure they get a variety of experiences and not just only you" (Subject 25). Women with a duty-oriented mental model recognized that advocating for talented junior employees to be placed on different teams led by different partners was costly

for the sponsoring partner (see evidence of male and female partners both recognizing the perceived cost of sponsorship, discussed in the prior section). However, men with an investment-oriented mental model located that cost in the larger context of long-term gains, whereas women with a duty-oriented mental model framed the cost as a responsibility a good leader should shoulder and an opportunity to reciprocate their own experiences receiving sponsorship by paying it forward.

As an example, Suzanne and Emily,<sup>68</sup> who have been working at ConsultCo for 11 and 13 years, respectively, admitted that it was challenging to balance one's own performance goals with efforts to foster advancement of top talent in the firm (Subjects 26 and 32). Suzanne reflected on her experiences managing and sponsoring a talented junior male employee and shared that she had been making a concerted effort to staff him regularly on her projects because he was a valuable resource who boosted her team's performance (Subject 26). But she also acknowledged that he needs to be given the opportunity to increase his visibility within the firm by working with other, influential partners, which has prompted her to help him develop and nurture those relationships (Suzanne, Subject 26). Similarly, Melanie framed sponsorship as "the right thing to do" and suggested that providing this support for only your own benefit is "part of the problem," because "do you really need an incentive to do the right thing?" (Subject 25).

Just as Emily described sponsorship as a value, Kate described feeling personally motivated to be a good sponsor: "I make sure that I am advocating [in] a very strong voice for them" (Subject 5). Beyond "speaking up," Kate said she has "always tried to give them opportunities" and was always "going to speak up" on their behalf (Subject 5). As part of this moral framing of sponsorship, women's motivation for providing sponsorship was linked to their personal experiences receiving it when they were advancing in their careers. Danielle explained that being a good sponsor is not just a moral imperative but also an opportunity pay it forward:

*"I faced quite a bit of it [i.e., barriers] growing up in the firm. But I was lucky because I had partners who pretty much did the same thing [in reference to sponsorship] for me. So I'm, sort of, paying it forward if you will."* (Danielle, Subject 14).

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<sup>68</sup> Suzanne (Subject 26) and Emily (Subject 32) requested that exact quotes not be used in the write up. Their comments were still coded and contributed to the development of the conceptual framework. Both participants approved of summary statements being used, in the author's own words.

In that way, the notion of reciprocity was integrated into both the investment- and duty-oriented mental models of sponsorship. An important distinction is that men with an investment-oriented mental model focused on direct, reciprocal exchange with protégés (sponsorship for protégé in exchange for reputational benefits back to sponsor) (Blau, 1964; Molm, 2010; Thibaut & Kelly, 1959); they were focused on the protégé's potential ability to generate a yield on their invested social capital. This is in contrast to the form of reciprocity that women displayed in the duty-oriented mental model, which focused on a broader notion of reciprocating prior experiences receiving sponsorship by paying it forward and providing sponsorship to others (Gouldner, 1960; Molm, 2010).

Melanie illustrated this distinction: she explained that she does not “feel [like] I need an incentive” because “there’s a personal satisfaction in helping people, there’s a joy in developing people and really seeing them grow” but also recognized that “there is an element” of reciprocity in that “you’re doing something that will ultimately benefit you in the long run because they’ll become better consultants” (Subject 25). If reciprocity was referenced, it was only within the larger context of sponsorship as a duty and a value and thus prompted female partners to focus on sponsoring junior employees who needed the help. Julie reflected on her 11 years at ConsultCo and explained that she had decided to sponsor a male junior employee because he “really, really need[ed] help” and that this person was “nice” and had “interpersonal skills,” which outweighed the issue of him being “not terribly differentiated” (Subject 17).<sup>69</sup> Unlike men who displayed an investment mental model, women with a duty mental model saw the potential protégés’ need of help as relevant to their decision-making process. This is suggestive of women perceiving sponsorship as a prosocial, helping behavior rather than a self-interested investment (see Penner et al., 2005 for review; also see Taylor & Curtis, 2018).

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<sup>69</sup> The notion of reciprocity manifesting as pay-it-forward is consistent with some prior work on mentorship increasing the probability of providing mentorship in the future. (Allen, 2003; Allen et al., 1997, 2000; Ragins & Cotton, 1993; Ragins & Scandura, 1997). It is difficult to draw strong conclusions from this body of work because of the important distinctions between mentorship and sponsorship (Giscombe et al., 2017; Ibarra et al., 2010; Kram, 1985). Moreover, there is mixed evidence for gender differences in the provision of mentorship (Allen, 2007; Ragins & Cotton, 1993, 1999). This raises the intriguing possibility that prior evidence of gender differences in mentorship behavior might have been picking up on sponsorship behaviors that were being conflated with mentorship in prior empirical work. This is a possibility we discuss in future research directions.

Intriguingly, a lack of sponsorship was similarly motivating because it led women to be more intentional about being a better sponsor than they experienced as protégés. As an example, Suzanne shared that she was motivated to provide sponsorship because of the lack of support she received as a junior employee (Subject 26). She shared that she had not been not given many opportunities early in her career to boost her visibility and noticed that she was frequently staffed on projects with the same partners, once they identified her as a high performer. This hindered her ability to build a broad network of relationships with different partners. Suzanne emphasized that she is trying to avoid the same mistake with her protégés. Thus, whereas Danielle emphasized that her positive experiences receiving sponsorship made her inclined to “pay it forward” (Subject 14), Suzanne’s negative experiences not receiving those opportunities also motivated her to provide sponsorship. As another example, Dana shared that she had had a “tough...but also very supportive” sponsor early in her career, but she did not “think anybody...did what I’m doing” (Subject 3); there was a general perception that her sponsorship efforts went beyond anything she had experienced herself. Samantha also explained that her approach as a sponsor was based in her experiences receiving it earlier in her career:

*“Specific individuals who I felt had my back, were willing to pound the table for me. And because of that, I didn’t really want to, let them down for being a sponsor, not just a mentor, but sponsor, someone who lends me their credibility, you know, and is willing to talk to other people about me. Then it would be completely mortifying if I let that person down and disappointed in all kinds of ways, whether it was to show that I was actually not who they say...it mattered a lot to feel like there was someone who 1) seemed to really care about me and my own development as an individual and 2) who were willing to pound the table for me, and then 3) did that when it really mattered the most. And so you know how, I, as a person now in that role [referring to the sponsor role] can be a little bit of that...it’s kind of my journey now.”* (Samantha, Subject 6).

Thus, women with a duty-oriented mental model were motivated by their prior experiences as protégés, good or bad.<sup>70</sup>

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<sup>70</sup> Male partners did sometimes reference their experiences as protégés in their decision-making process as sponsors, but it manifested as them seeing themselves in the prospective sponsor rather than as a motivation to “pay it forward” or correct past wrongs, as it emerged in female partners’ comments. As an example, Ben explained that he was motivated to sponsor a male junior employee because of their similarity: “he [was] the same age with kids, married, so demographic profile, very similar...I don’t know what the bias is, but like a commonality bias to it, I see myself in him” (Subject 18). Men with an investment-oriented mental model did not frame their own experiences as protégés as informative to their decisions about providing sponsorship, and it was not seen as informing their values as sponsors in the same way it was with female partners.



Being motivated by one's responsibility to the protégé is a more other-oriented mental model of sponsorship compared to the investment-oriented mental model, which is focused on maximizing future returns to sponsors. This makes the duty mental model more consistent with the feminine gender role and gender norms of women's higher levels of communality (Abele, 2003; Abele et al., 2016; Broverman et al., 1972; Diekmann & Eagly, 2000; Heilman, 2012), compared to the investment-oriented mental model of sponsorship. The investment-oriented mental model is transactional and focused on benefits to sponsors, which is more agentic and consistent with stereotypically masculine behavior (Abele, 2003; Abele et al., 2016; Heilman, 2012). These findings suggest that women are more likely to conceptualize their roles as sponsors and make decisions about mobilizing social capital for others in a way that adheres to the feminine gender role. One possibility is that women frame sponsorship as a duty to avoid igniting the social backlash that comes from violating the feminine gender role (Bowles et al., 2007; Moss-racusin & Rudman, 2010; Okimoto & Brescoll, 2010; Rudman, 1998; Rudman & Glick, 2001).

Along the same vein, the duty mental model is inconsistent with conceptualizations of sponsorship that focus on the transactional nature of the relationship. Hewlett (2013a) argued that sponsors do not support protégés because of "altruism or like-mindedness," but because protégés represent "an investment in [the sponsor's] own career, organization, or vision" (p. 20). This intuition appeared accurate only for men who displayed an investment mental model. However, the duty mental model reflects the altruistic motivation that is disregarded as part of sponsor decision making in the above framework. Qualitative evidence indicated that women still understood that sponsorship was potentially costly and recognized that social capital was a valuable resource. They just did not frame it as a resource that should be used with the express purpose of generating returns (Bourdieu, 1986; Fernandez et al., 2000). Instead, social capital was treated like a resource that is the responsibility of a good leader to share with deserving, hardworking junior employees. The inconsistency between the duty mental model and Hewlett's (2013a) framework suggests that models of sponsorship that assume all leaders engage in the same processes that inform whether and for whom they provide sponsorship are incomplete pictures of the phenomenon.

*Identifying deserving protégés.* A key dimension of the duty-oriented mental model was that sponsorship should be provided to deserving protégés, which was inferred via signals that communicated protégés' overall commitment to their careers and the firm. More specifically, women highlighted that sponsorship should be provided to junior employees who demonstrated a strong work ethic, high effort, and coachability, and who were generally willing to match the cost of sponsorship with their effort.<sup>71</sup> Samantha admitted that she did not provide sponsorship unless junior employees were willing "to meet me halfway." Dana explained that because "everyone is so busy," she will not "put time in...for people who don't show up" (Subject 3). Showing up, which was a term she used to describe hardworking tendencies, was a "minimum requirement for [her]" to provide sponsorship, and "good people show up" (Dana, Subject 3). Similarly, Kate explained the questions she asks herself when evaluating a potential protégé:

*"Are you showing a desire to learn? If I think that you are just a talker and maybe you don't do the work...I won't even spend time on you. If you're earnest about it and you're really willing [to work]...I will help you."* (Kate, Subject 5).

Julie, who has worked at the firm for 11 years, reflected on her prior experience deciding to sponsor a specific junior employee, explaining that this individual was worth her time and effort because "this person would get in there and work 12-hour days and get it done" and "they're just a heavy lifter" (Subject 17).

Junior employees with the "grit and capability to...not just deliver, but also create that capacity for you because they are also thinkers, not doers" (Samantha, Subject 6) were perceived to be deserving protégés. In reflecting on a junior female employee whom she sponsored recently, Dana said that she was willing to expend social capital on her behalf because "she seems to be willing...to do whatever it takes" and that "so far it's been a good investment" (Subject 3). This is a rare example of investment terminology being used as part of the duty mental model; when it was used, it was only within the context of supporting hardworking and deserving protégés. To be sure, high-performing and competent junior employees were

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<sup>71</sup> Some male partners did reference work ethic and coachability as important qualities to look for in a potential protégé, but it was predominately referenced by female partners. When men did discuss these qualities, their comments were couched in the context of whether these qualities made an individual a good investment that would pay off for the sponsor, indicating that they were still engaging in an investment-oriented mental model of sponsorship. As an example, Ben explained that he is looking for "something that is inherently coachable" (Subject 18), and Cameron wanted to see individuals who "are passionate about what they want to achieve" (Subject 21). In addition, Carter shared that "if you're willing to learn and you want to be mentored, I'm happy to do that, but you're gunna have to show me that that's worth my time and investment" (Subject 13).

valued by female partners, but these qualities were mentioned in combination with a strong work ethic. Georgia, who has been working at ConsultCo for just shy of a decade, explained that she sponsored a junior employee because she saw potential in her intelligence, hardworking nature, and the positive reactions that clients have from her performance (Subject 7). Indeed, Emily reflected that she was willing to go the extra mile to help a junior employee because of their attitude and work ethic, despite them not having the skill set or technical acumen (Subject 32).<sup>72</sup>

Danielle clarified that it was not enough to merely be smart, but that “you have to work hard, and you have to be smart enough” (Subject 14). She was willing to provide sponsorship only to junior employees who demonstrate a capacity to be “hard working as well as working smart” (Danielle, Subject 14). Others echoed this same sentiment, sharing that they will not provide sponsorship to junior employees who are not “showing an interest and the passion” (Julie, Subject 17) and are willing to “push the envelope [and] work hard to deliver what you said you will deliver” (Melanie, Subject 25). Thus, perceived competence was necessary but not sufficient to prompt women’s social capital mobilization. The cost of providing sponsorship was perceived to be worth it only if it was in service of helping hardworking junior employees. Sophie, who has been with the firm for 11 years, explained that she often sponsors junior employees by giving “them assignments outside of their comfort zone” and selects only protégés who “have the right attitude, the passion and willingness to try new things,” because “those are the qualities you’re looking for in the next leader” (Subject 15).

The qualities that women valued in potential protégés can be framed as signals of commitment. Female partners with a duty mental model of sponsorship identified deserving protégés based on signals that communicated a high commitment to the work, such as a strong work ethic, coachability, and overall effort. These qualities led female partners to feel that the potential cost of sponsorship was worth it. The importance of actual and perceived commitment to organizational success has been explored by scholars for several decades (Becker, 1960; Correll et al., 2007; Leung, 2014; Meyer et al., 1989; Reichers, 1985).

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<sup>72</sup> Georgia (Subject 7) and Emily (Subject 32) requested that direct quotes not be used from their interviews. Instead, a high-level summary of their comments that are illustrative of these themes is included in this discussion.

The lion's share of work on *perceived* commitment, as it relates to forming impressions of others and making decisions, has been in the context of labor markets and hiring decisions. For instance, job candidates are evaluated based their perceived willingness to apply their skills and capabilities to benefit the firm over the long term and to advance in their careers (i.e., perceived firm and career commitment). Those perceived to be more committed are more likely to be hired (Campbell & Hahl, 2020; Correll et al., 2007; Galperin et al., 2020; Leung, 2014; Rivera & Tilcsik, 2016). As with evaluating fit, evaluating commitment is difficult and evaluators rely on signals to make inferences about commitment (Spence, 1974). The qualitative findings discussed here build on this prior work, suggesting that perceived commitment might be consequential to subsequent evaluation rounds that occur within the organization. Specifically, similar to perceived fit in the prior section, these findings provide initial evidence that perceived commitment influences decisions to mobilize social capital in sponsorship.

### **General Discussion**

Sponsorship captures the phenomenon of accessing and mobilizing social capital, or the quantity and quality of resources that are embedded in their social and professional networks (Kilduff & Tsai, 2003; Lin, 1999), for the purposes of fostering junior employees' career advancement (Hewlett, 2013a; Ibarra et al., 2010). Despite existing evidence suggesting that male and female leaders might perceive their social capital differently and engage in different decision processes when deciding to provide sponsorship (Abele, 2003; Burn, 1996; Heilman, 2012; Lin, 2000; Woehler et al., 2021), how individuals conceptualize and make decisions about mobilizing their social capital for others when providing sponsorship is not well understood. Drawing from a qualitative study conducted at a multinational professional services firm, I introduce a conceptual framework for understanding how male versus female sponsors decide whether and for whom to mobilize their social capital. Inductive analyses of interviews conducted with equity partners provided evidence for two mental models that informed decision making. Sponsorship was framed as an either investment of social capital in high-potential protégés who have the potential to generate returns for sponsors, or as the duty of responsible leaders to share social capital with deserving protégés to help them succeed. Men were more likely than women to display an investment mental model. Decisions to provide

sponsorship were motivated by the potential for future returns and therefore focused on “investing” in high-quality protégés who were most likely to yield a good investment. In contrast, women were more likely than men to display a duty mental model, in which social capital was framed as a resource that responsible leaders have the duty to use to help others succeed. Decisions to provide sponsorship were motivated by a sense of responsibility to protégés and therefore focused on helping deserving protégés.

### **Contributions and Implications**

Gender differences in network structure, and the returns that individuals experience from those structures, contribute to gender disparities in accessing and mobilizing social capital—disparities that slow women’s career advancement (Brass, 1985; Lin, 2000; McDonald, 2011; Woehler et al., 2021). Although examining how the ability to access and mobilize social capital is associated with career advancement has yielded valuable insights, career advancement is only one way that social capital can be used. Social capital can also be mobilized on behalf of others, as in sponsorship. Prior work has focused on gender disparities in access and mobilization of social capital for one’s own benefit, but this paper provides a better understanding of how men and women make decisions about mobilizing their social capital for others. Indeed, qualitative evidence included in this paper offers novel insights into how male versus female leaders decide to mobilize their social capital to foster others’ career advancement.

More specifically, this paper provides evidence for two mental models that influence how men and women make decisions about mobilizing their social capital. Mental models, which are also referred to as schemes, frames, or mindsets, influence goal setting, decision making, performance, and strategic choices in organizations (Chermack, 2003; Gary & Wood, 2011; Gavetti & Levinthal, 2000; Schwenk, 1984). This paper’s conceptual framework contributes to our understanding of how leaders make decisions about mobilizing valuable resources, such as social capital, to develop and manage high-potential and high-performing junior employees. To that point, this qualitative evidence speaks to existing work on men’s and women’s different styles of leadership. Women are more likely to display transformational and interpersonally oriented styles of leadership, whereas men are more likely to display transactional and task-oriented leadership styles (Burns, 1978; Eagly & Johannesen-Schmidt, 2001). This difference has been

attributed to women's internalization of societal gender roles and adherence to gender norms (Eagly & Johannesen-Schmidt, 2001). Indeed, transformational leadership has been shown to be one technique women can use to temper the social backlash that can occur when women ascend to leadership roles (Eagly & Karau, 2002; Lyness & Heilman, 2006). The duty mental model is more consistent with a transformational approach to leadership compared to the investment mental model of sponsorship.

A conceptual model for how male and female leaders make decisions about whether and for whom to mobilize their social capital has important implications for understanding how network-embedded resources are cognitively visualized and activated for others, not just one's own benefit. Scholars have found that various contextual factors and individual differences impact how people visualize and represent portions of their social and professional networks for their own career benefit (Menon & Smith, 2014; Shea et al., 2015; Smith et al., 2016). However, this paper offers novel insight into decision making about social capital mobilization for others: analyses revealed differences between male and female leaders' motivations for providing sponsorship and what qualities helped them decide for whom they were willing to mobilize their social capital. In this way, the paper also contributes to understanding the provision of referrals. Evidence of gender differences in mental models for sponsorship answers the call for more robust examinations of how sponsors make decisions about providing referrals and the impact of sponsor characteristics on the outcomes of referrals (Rubineau & Fernandez, 2013). These qualitative findings build on ethnographic evidence of some individuals' hesitance to refer members of their same stigmatized social groups out of concern for potential reputational consequences (see also Duguid et al., 2012; Lewis & Sherman, 2003). Qualitative evidence revealed that this concern was at the forefront of both male and female leaders' minds, but that it was managed differently by gender. Men were preoccupied with the future reputational benefits that sponsoring a successful, high-performing protégé can provide, whereas women were focused on supporting deserving protégés who are committed to the work for the long term.

Evidence of how male and female leaders identified potential protégés also contributes to our understanding of factors that influence access to support and resources. For instance, men with investment mental models of sponsorship made inferences about the quality of a particular "investment" using signals

such as initiative and a natural “agility” for the work (Spence, 1974). A high perceived fit was seen as predictive of junior employees’ probability of long-term success at the firm. By comparison, women with duty mental models of sponsorship identified protégés by making inferences about commitment with signals such as work ethic, effort, and coachability (Spence, 1974). Discerning the criteria that male and female leaders use to identify their protégés expands our understanding of when perceptions of fit and commitment are relevant to decision making. To date, these dimensions have been examined predominately in the context of evaluating job candidates and labor market decisions (Cable & Judge, 1997; Jovanovic, 1979; Rivera, 2012; Rivera & Tilcsik, 2016). This qualitative evidence suggests that these dimensions continue to be relevant in subsequent evaluation stages that occur within the firm post hire; these later stages have implications for individuals’ ability to access informal resources that facilitate their career advancement, for example, the support of influential sponsors.

A final and important implication of this work is that it introduces one way that gender disparities in social capital can be reproduced by male and female leaders’ sponsorship choices. Existing examinations of social capital disparities often employ a more static framework; individuals either have it or they do not, and having it is correlated with advantages in organizations. However, it is equally important to consider how social capital is accrued and reproduced (Bourdieu, 1986). Although this process has yet to be examined empirically, Bourdieu (1986) theorized that social capital can be reproduced, but that the reproduction of it would require “continuous series of exchanges in which recognition is affirmed and reaffirmed” and that this exchange would not be “profitable or even conceivable unless one invests in it a specific competence (knowledge of genealogical relationships and of real connections and the skills at using them)” (p. 52). In essence, the argument is that because reproducing social capital requires the same skills that are integral to its initial production, the extent to which one is able to reproduce social capital will be proportional to one’s existing social capital (Bourdieu, 1986). This theory is validated by growing evidence that women do not experience the same returns or benefits as men even when they possess the same social connections and network structure (Lin, 2000; McGuire, 2002; see Merton, 1958 for Matthew Effect; Woehler et al., 2021).

In the investment mental model of sponsorship, social capital was framed like a resource that should be *invested* for the purpose of generating returns for the sponsor. This is an example of social capital being invested for the explicit purpose of reproducing it. Although the qualitative methodology employed in this paper limits the strength of the claims that can be made about the causal relationships and underlying dynamics that inform using one mental model versus another, it is noteworthy that men were more likely to display the mental model of sponsorship that focused directly on the reproduction of social capital. This is in contrast to the duty mental model that women were most likely to display, which focused on *spending* social capital to support deserving protégés and had relatively less regard for whether that “investment” would generate returns for the sponsor. In that way, sponsorship can be recast as a non-promotable task that women are undertaking (Babcock et al., 2017): spending social capital to advance junior employees who are hardworking and deserving, but not necessarily high-potential, might benefit the firm, but it does not necessarily yield the highest returns for female sponsors. Thus, this evidence has implications for a possible supply-side mechanism contributing to gender gaps in social capital generation over time. Beyond existing evidence of gender differences in returns on social capital assuming equal “investments” (Lutter, 2015; Woehler et al., 2021), this paper implies that men’s and women’s choices about whether and in whom to invest could contribute to the reproduction of gender disparities in social capital.

***Organizational and managerial implications.*** This work has important practical implications for understanding organizational efforts to reduce gender inequality. Informal advancement processes such as sponsorship can reproduce or correct existing inequality in organizational processes including promotion and hiring decisions (e.g., Fernandez & Sosa, 2005; Fernandez-Mateo & King, 2011; McDonald, 2011). This is because sponsorship is consequential to career advancement (see Allen et al., 2004 for meta-analysis), making it critical to understand how male and female leaders naturally make decisions about whether and for whom to mobilize their social capital. In addition, organizations have the ability to directly intervene to foster relationships between junior women and influential sponsors who might facilitate their advancement (Ibarra et al., 2010). The qualitative findings in this paper highlight important differences in how men and women make decisions about spending social capital for others, which has important practical



implications for the role that leaders play in reducing or reproducing inequality. Although increased representation of female leaders and sponsors is frequently mentioned as a way to facilitate the advancement of junior women, there is mixed evidence about how important female leaders are to decreasing inequality and how involved male leaders are willing to be in increasing diversity, equity, and inclusion (Faniko et al., 2017; Leslie et al., 2017; Sherf et al., 2017; Srivastava & Sherman, 2015).

### **Limitations and Future Research Directions**

The qualitative methodology employed in this paper is both a strength and a weakness. Inductive methods provide the unique opportunity to dig into complex social and interpersonal phenomena that are understudied and not well understood (Yin, 2003). But this comes at the cost of relatively smaller sample sizes, generalizability concerns, and the inability to draw strong causal conclusions (see methods section for greater discussion of the pros and cons of qualitative methods) (Small, 2009; Yin, 2003). Results for gender differences in endorsement of the investment versus duty mental models of sponsorship are correlational findings, and future research should examine the causal mechanism that influences men's and women's choice of mental model (e.g., societal gender roles, contextual factors such as firm culture or incentive systems, individual differences such as personality, and prior experiences with sponsorship).

Focusing on equity partners at a single firm provided the opportunity to dive into sponsors' self-perceptions and self-described motivations while holding many factors constant that could obscure the phenomenon of interest, including the firm's incentive structure, culture, and formal and informal promotion and advancement processes. However, this comes at the cost of generalizability of these findings across different firms. For example, ConsultCo's partners focused on sponsoring protégés by lobbying for them to be placed on projects with different and influential partners, and this was perceived to be potentially costly for the sponsoring partners because they were giving away valuable resources (i.e., high-potential protégés). ConsultCo's individual performance-based incentive structure and competitive culture is not unique but could have made the costs of sponsorship highly salient for sponsors. Indeed, firm culture and incentive systems have been shown to be consequential to a range of organizational processes (e.g., Dutton et al., 2002; Hofstede et al., 1990). A culture that values individual performance and competition might

prime individuals to take on an investment-oriented mental model of sponsorship that would help them evaluate the potential costs and benefits of providing sponsorship in a more transactional manner. Alternatively, firm cultures that highly value the provision of social support and lack strong individual performance-based incentives might result in leaders being more inclined to adopt a duty mental model of sponsorship because it would be consistent with their firm's culture. However, gender differences in the type of mental model of sponsorship that was endorsed still emerged despite ConsultCo's competitive culture and individual performance-based incentive system. This phenomenon suggests that other factors might drive mental model choice above and beyond contextual factors such as firm culture and incentive structure.

This paper intentionally narrowed its focus to the sponsor's decision-making process; therefore, the conceptual model does not account for certain antecedents or downstream consequences of sponsorship decisions. For instance, sponsors' networks influence their ability to access and mobilize social capital, and that could influence their ability to provide sponsorship at all. Qualitative analysis of ConsultCo equity partners provided no evidence of men and women recognizing their social capital to be lacking, suggesting that this might not be a salient factor in their decision-making process as sponsors. However, field and experimental evidence of gender disparities in returns to network-embedded resources and connections makes this an important possibility to consider, particularly in light of evidence of the barriers women face when building valuable network connections and inequity in returns to network-embedded resources (Lin, 2000; Woehler et al., 2021). Are the women who have overcome barriers to their career advancement unique in their ability to accrue social capital? The qualitative methodology in this study focused on women already in leadership positions, which introduces the possibility of survival bias in these analyses. Future research should examine upstream selection effects that influence sorting into leadership positions and integrate this into decisions about mobilizing social capital for others in sponsorship. On the other side of the coin, future research should explore how downstream consequences following the provision of sponsorship can impact or reinforce the mental models that men and women employ. For instance, does the

ultimate result of one's sponsorship (e.g., successful or failed protégé) impact how male and female sponsors subsequently approach sponsorship?

This paper is also limited in its exclusive focus on the relationship between the sponsor's gender and mental models of sponsorship, and the protégé's gender is not incorporated into the conceptual model of sponsor decision making. Practically speaking, limited data on protégé gender due to participants' concerns about privacy and confidentiality made it difficult to draw conclusions on the impact of the protégé's gender on the sponsor's decisions. Theoretically speaking, narrowing the focus to the sponsor's gender provided the opportunity to conduct an in-depth examination of the sponsor, which is valuable for constructing a baseline. Sponsorship is an inherently dyadic phenomenon that involves both sponsors and protégés; thus, future research should explore how these findings vary as a function of the protégé's gender. For instance, the finding that women's prior experiences with sponsorship (or lack thereof) was part of their motivation to provide sponsorship could become more salient when they are considering whether to sponsor other women. The impact of the protégé's gender on the sponsor's decision-making process is likely a fruitful direction for future research and will provide a more comprehensive understanding of the sponsorship process as a whole.

### **Conclusion**

Sponsorship is a form of career support involving high-status and influential organizational members mobilizing their social capital to identify and secure career-advancing opportunities for junior employees. However, the ways that men and women make decisions about providing sponsorship are not well understood. I draw from a qualitative inquiry of leaders working at a multinational professional services firm to construct a conceptual framework of mental models of sponsor decision making. Although both male and female leaders recognized the potential cost of providing sponsorship, they engaged in different processes when deciding whether and for whom to provide sponsorship. Men were more likely than women to display an investment-oriented mental model that framed social capital as a resource to be invested in high-potential protégés to generate returns for sponsors (e.g., reputational benefits from being associated with successful protégés). Women were more likely than men to display a duty-oriented mental

model that framed social capital as a resource that responsible leaders have the duty to spend on deserving protégés to help them succeed. These findings have important implications for understanding the psychological microfoundations that influence how individuals make decisions about mobilizing social capital for others in sponsorship.

## REFERENCES

- Abdullina, P. (2008). 2007–2008 AALS Statistical Report on Law Faculty: Association of American Law Schools Statistical Report on Law School Faculty and Candidates for Law Faculty Positions. AALS. <http://aals.org.cnchost.com/statistics/2008dlt/titles.html>
- Abele, A. E. (2003). The dynamics of masculine-agentic and feminine-communal traits: Findings from a prospective study. *Journal of Personality and Social Psychology*, 85(4), 768–776. <https://doi.org/10.1037/0022-3514.85.4.768>
- Abele, A. E., Hauke, N., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness—Communion with Warmth and Morality. *Frontiers in Psychology*, 7(1810), 1–17.
- Abraham, M. L. (2020). Gender-role incongruity and audience-based gender bias: An examination of networking among entrepreneurs. *Administrative Science Quarterly*, 65(1), 151–180.
- Allen, T. D. (2003). Mentoring others: A dispositional and motivational approach. *Journal of Vocational Behavior*, 62(1), 134–154. [https://doi.org/10.1016/S0001-8791\(02\)00046-5](https://doi.org/10.1016/S0001-8791(02)00046-5)
- Allen, T. D. (2007). Mentoring relationships from the perspective of the mentor. In B. R. Ragins & K. E. Kram (Eds.), *The handbook of mentoring at work: Theory, research, and practice* (pp. 123–147). Sage Publications Inc.
- Allen, T. D., Eby, Lillian, T., Poteet, M. L., & Lentz, E. (2004a). Career benefits associated with mentoring for mentors: A meta-analysis. *Journal of Vocational Behavior*, 89(1), 127–136. <https://doi.org/10.1016/j.jvb.2013.03.011>
- Allen, T. D., Eby, Lillian, T., Poteet, M. L., & Lentz, E. (2004b). Career benefits associated with mentoring for proteges: A meta-analysis. *Journal of Applied Psychology*, 89(1), 127–136. <https://doi.org/10.1016/j.jvb.2013.03.011>
- Allen, T. D., Poteet, M. L., & Burroughs, S. M. (1997). The mentor's perspective: A qualitative inquiry and future agenda. *Journal of Vocational Behavior*, 51, 70–89. <https://doi.org/10.1006/jvbe.1997.1596>
- Allen, T. D., Poteet, M. L., & Russell, J. E. A. (2000). Protégé selection by mentors: What makes the difference? *Journal of Organizational Behavior*, 21(3), 271–282.
- Angrist, J. D., & Pischke, J.-S. (2009). *Mostly harmless econometrics: An empiricist's companion*. Princeton University Press.
- Areheart, B. A. (2019). The top 100 law reviews: A reference guide based on historical USNWR data. *SSRN Electronic Journal*.
- Athenstaedt, U. (2003). On the content and structure of the gender role self-concept: Including gender-stereotypical behaviors in addition to traits. *Psychology of Women Quarterly*, 27, 309–318. <https://doi.org/10.1111/1471-6402.00111>
- Aven, B. (2015). The paradox of corrupt networks: An analysis of organizational crime at Enron. *Organization Science*, 26(4), 980–996. <http://dx.doi.org/10.1287/orsc.2015.0983>
- Aven, B., Morse, L., & Iorio, A. (2018). The valley of trust: The effect of relational strength on monitoring quality. *Organizational Behavior and Human Decision Processes*. <https://doi.org/10.1016/j.obhdp.2019.07.004>
- Babcock, L., Recalde, M., Vesterlund, L., & Weingart, L. (2017). Gender differences in accepting and receiving requests for tasks with low promotability. *American Economic Review*, 107(3), 1–35. <https://doi.org/10.1257/aer.20141734>
- Baldiga, N. R., & Coffman, K. B. (2016). Laboratory evidence on the effects of sponsorship on the competitive preferences of men and women. *Management Science*, November, 1–26. <https://doi.org/10.1287/mnsc.2016.2606>
- Bangerter, A., Roulin, N., & Konig, C. (2012). Personnel selection as a signaling game. *Journal of Applied Psychology*, 97(4), 719–738. <https://doi.org/10.1037/a0026078>

- Barbulescu, R., & Bidwell, M. (2013). Do women choose different jobs from men? Mechanisms of application segregation in the market for managerial workers. *Organization Science*, 24(3), 737–756. <https://doi.org/10.1287/orsc.1120.0757>
- Bartol, K. M. (1978). The sex structuring of organizations: A search for possible causes. *Academy of Management Review*, 3(4), 805–815. <https://doi.org/10.5465/amr.1978.4289287>
- Bear, J. B., & Glick, P. (2017). Breadwinner bonus and caregiver penalty in workplace rewards for men and women. *Social Psychological and Personality Science*, 8(7), 780–788. <https://doi.org/10.1177/1948550616683016>
- Beck, T. E., & Plowman. (2014). Temporary, emergent interorganizational collaboration in unexpected circumstances; A study of the Columbia space shuttle response effort. *Organization Science*, 25(4), 969–1286. <https://doi.org/10.1287/orsc.2013.0888>
- Becker, E. R., Breyer, S. G., & Calabresi, G. (1994). The Federal Judicial Law Clerk Hiring Problem and the Modest March 1 Solution. *The Yale Law Journal*, 104(1), 207–225.
- Becker, H. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66(1), 32–40.
- Behfar, K., & Okhuysen, G. A. (2018). Perspective-Discovery within validation logic: Deliberately surfacing, complementing, and substituting abductive reasoning in hypothetico-deductive inquiry. *Organization Science*, 29(2), 323–340. <https://doi.org/10.1287/orsc.2017.1193>
- Benard, S., & Correll, S. J. (2010). Normative discrimination and the motherhood penalty. *Gender & Society*, 24(5), 616–646. <https://doi.org/10.1177/0891243210383142>
- Bennett, J. (2018, June 28). After #metoo, the ripple effect. *The New York Times*.
- Berger, M. (2001). Why the U.S. news and world report law school rankings are both useful and important. *Journal of Legal Education*, 51(4), 487–502.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012a). Evaluating online labor markets for experimental research: Amazon.com's mechanical turk. *Political Analysis*, 20(3), 351–368. <https://doi.org/10.1093/pan/mpr-57>
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012b). Evaluating online labor markets for experimental research: Amazon.com's mechanical turk. *Political Analysis*, 20(3), 351–368.
- Bidwell, M., Won, S., Barbulescu, R., & Mollick, E. (2015). I used to work at Goldman Sachs! How firms benefit from organizational status in the market for human capital. *Strategic Management Journal*, 36, 1164–1173. <https://doi.org/10.1002/smj.2272>
- Bielby, D. D., & Bielby, W. T. (1984). Work Commitment, Sex-Role Attitudes, and Women's Employment. *American Sociological Review*, 49(2), 234–247. JSTOR. <https://doi.org/10.2307/2095573>
- Bielby, D. D., & Bielby, W. T. (1988). She Works Hard for the Money: Household Responsibilities and the Allocation of Work Effort. *American Journal of Sociology*, 93(5), 1031–1059. <https://doi.org/10.1086/228863>
- Bielby, W. T., & Bielby, D. D. (1992). I Will Follow Him: Family Ties, Gender-Role Beliefs, and Reluctance to Relocate for a Better Job. *American Journal of Sociology*, 97(5), 1241–1267. <https://doi.org/10.1086/229901>
- Biernat, M., & Fuegen, K. (2001). Shifting standards and the evaluation of competence: Complexity in gender-based judgment and decision making. *Journal of Social Issues*, 57(4), 707–724. <https://doi.org/10.1111/0022-4537.00237>
- Biernat, M., & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72(3), 544–557. <https://doi.org/10.1037/0022-3514.72.3.544>
- Bills, D. (1992). The mutability of educational credentials as hiring criteria. *Work and Occupations*, 19(1), 79–95.
- Blackwell, M., Iacus, S., King, G., & Porro, G. (2009). Cem: Coarsened exact matching in Stata. *Stata Journal*, 9(4), 524–546. <https://doi.org/10.1177/1546222509350004>
- Blair-Loy, M. (2001). Cultural constructions of family schemas: The case of women finance executives. *Gender and Society*, 15(5), 687–709. <https://doi.org/10.1177/089124301015005004>

- Blau, P. M. (1964). *Exchange and power in social life*. Wiley.
- Bohren, J. A., Imas, A., & Rosenberg, M. (2019). The dynamics of discrimination: Theory and evidence. *American Economic Review*, 109(10), 3395–3436. <https://doi.org/10.1257/aer.20171829>
- Boorstin, J. (2018, June 26). Survey: Its still tough to be a woman on Wall Street—But men don't always notice. CNBC.
- Botelho, T., & Abraham, M. (2017). Pursuing quality: How search costs and uncertainty magnify gender-based double standards in a multi-stage evaluation process. *Administrative Science Quarterly*, 62(4), 698–730. <https://doi.org/10.1177/0001839217694358>
- Bourdieu, P. (1986). The Forms of Capital. In *Handbook of theory of research for the sociology of education* (pp. 46–58). Greenwood Press. <https://doi.org/10.1002/9780470755679.ch15>
- Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. The University of Chicago Press. <https://doi.org/10.4028/www.scientific.net/KEM.707.148>
- Bowles, H., & Babcock, L. (2013). How can women escape the compensation negotiation dilemma? Relational accounts are one answer. *Psychology of Women Quarterly*, 37(1), 1–17. <https://doi.org/10.1177/0361684312455524>
- Bowles, H., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes*, 103(1), 84–103. <https://doi.org/10.1016/j.obhdp.2006.09.001>
- Brands, R. A. (2013). Cognitive social structures in social network research: A review. *Journal of Organizational Behavior*, 34, 82–103. <https://doi.org/10.1002/job.1890>
- Brands, R. A., & Fernandez-Mateo, I. (2017). Leaning out: How negative recruitment experiences shape women's decisions to compete for executive roles. *Administrative Science Quarterly*, 62(3), 405–442. <https://doi.org/10.1177/0001839216682728>
- Brass, D. J. (1985). Men's and women's networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal*, 28(2), 327–343. <https://doi.org/10.2307/256204>
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkratz, P. S. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28(2), 59–78.
- Brown, M., Setren, E., & Topa, G. (2015). Do informal referrals lead to better matches? Evidence from a firm's employee referral system. *Journal of Labor Economics*, 34(1), 161–209. <https://doi.org/10.1086/682338>
- Budig, M. J., & England, P. (2001). The wage penalty for motherhood. *American Sociological Review*, 66(2), 204–225. <https://doi.org/10.2307/2657415>
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011a). Amazon's Mechanical Turk: A new source of inexpensive yet high-quality data? *Perspectives on Psychological Science*, 6(1), 3–5. <https://doi.org/10.1037/14805-009>
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011b). Amazon's Mechanical Turk: A new source of inexpensive yet high-quality data? *Perspectives on Psychological Science*, 6(1), 3–5. <https://doi.org/10.1177/1745691610393980>
- Burks, S. V., Cowgill, B., Hoffman, M., & Housman, M. (2015). The value of hiring through employee referrals. *The Quarterly Journal of Economics*, 130(2), 805–839. <https://doi.org/10.1093/qje/qjv010>
- Burn, S. M. (1996). *The social psychology of gender*. McGraw-Hill.
- Burns, J. M. (1978). *Leadership*. Harper & Row.
- Burt, R. S. (1982). Toward a structural theory of action: Network models of social structure, perception, and action. Academic Press.
- Burt, R. S. (1998). The gender of social capital. *Rationality and Society*, 10(1), 5–46. <https://doi.org/10.1177/104346398010001001>
- Burt, R. S. (2001). Structural holes versus network closure as social capital. In N. Lin, K. Cook, & R. S. Burt (Eds.), *Social capital: Theory and research* (pp. 31–55). Routledge.
- Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology*, 110(2), 349–399.

- Buser, T., Niederle, M., & Oosterbeek, H. (2014). Gender, competition and career choices. *The Quarterly Journal of Economics*, 129(3), 1409–1447. <https://doi.org/10.1093/qje/qju009>
- Byun, S.-E., & Sternquist, B. (2012). Here today, gone tomorrow: Consumer reactions to perceived limited availability. *Journal of Marketing Theory and Practice*, 20(2), 223–234. <https://doi.org/10.2753/MTP1069-6679200207>
- Cable, D. M., & Judge, T. A. (1997). Interviewers' perceptions of person-organization fit and organizational selection decisions. *Journal of Applied Psychology*, 82(4), 546–561.
- Campbell, E. L., Chow, R., & Aven, B. (2020). From exception to exceptional: How gender and tenure impact sponsor effectiveness. *Academy of Management Proceedings*. Academy of Management. <https://doi.org/10.5465/AMBPP.2020.21151abstract>
- Campbell, E. L., & Hahl, O. (2020). He's overqualified, she's highly committed: Gender, qualifications, and perceptions of commitment. In G. Atinc (Ed.), *Best Paper Proceedings of the Eightieth Annual Meeting of the Academy of Management*. <https://doi.org/10.5465/AMBPP.2020.38>
- Campero, S., & Fernandez, R. M. (2018). Gender composition of labor queues and gender disparities in hiring. *Social Forces*, 97(4), 1487–1516. <https://doi.org/10.1093/sf/soy097>
- Carli, L. L., Alawa, L., Lee, Y., Zhao, B., & Kim, E. (2016). Stereotypes about gender and science: Women  $\neq$  scientists. *Psychology of Women Quarterly*, 40(2), 244–260. <https://doi.org/10.1177/0361684315622645>
- Carson, K., & Bedeian, A. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior*, 44(3), 237–262.
- Castilla, E. J. (2005). Social networks and employee performance in a call center. *American Journal of Sociology*, 110(5), 1243–1283. <https://doi.org/10.1086/427319>
- Castilla, E. J., & Benard, S. (2010). The paradox of meritocracy in organizations. *Administrative Science Quarterly*, 55(4), 543–576. <https://doi.org/10.2189/asqu.2010.55.4.543>
- Catalyst. (2018). Women in the Workforce: Quick take. Catalyst. <https://www.catalyst.org/knowledge/women-workforce-global>
- Catalyst. (2020). Pyramid: Women in S&P 500 Companies. Catalyst. <https://www.catalyst.org/research/women-in-sp-500-companies/>
- Cha, S. E., & Roberts, L. M. (2019). Leveraging minority identities at work: An individual-level framework of the identity mobilization process. *Organization Science*, 30(4), 735–760. <https://doi.org/10.1287/orsc.2018.1272>
- Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology*, 45(2), 241–256. <https://doi.org/10.1037/0022-3514.45.2.241>
- Charmaz, K. (2001). Grounded theory. In R. M. Emerson (Ed.), *Contemporary field research: Perspectives and formulations* (pp. 335–352). Waveland.
- Charmaz, K. (2003). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies for qualitative inquiry* (2nd ed.). Sage Publications Inc.
- Charness, G., & Gneezy, U. (2012). Strong evidence for gender differences in risk taking. *Journal of Economic Behavior & Organization*, 83(1), 50–58. <https://doi.org/10.1016/j.jebo.2011.06.007>
- Chermack, T. J. (2003). Mental models in decision-making and implications for human resource development. *Advances in Developing Human Resources*, 5(4), 408–422. <https://doi.org/10.1177/1523422303257373>
- Chilton, A. S., & Posner, E. A. (2015). An empirical study of political bias in legal scholarship. *Journal of Legal Studies*, 44, 277–314.
- Cialdini, R. B. (1989). Indirect tactics of image management: Beyond basking. In R. A. Giacalone & P. Rosenfeld (Eds.), *Impression management in the organization* (pp. 45–56). Erlbaum.
- Clark, S. J., & Desharnais, R. A. (1998). Honest answers to embarrassing questions: Detecting changes in the randomized response model. *Psychological Methods*, 3(2), 160–168. <https://doi.org/10.1037/1082-989X.3.2.160>
- Cohen, J. (2002). *Inside Appellate Courts*. University of Michigan Press.



- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, 95–120.
- Coleman, J. (1990). *Foundations of social theory*. Belknap Press of Harvard University Press.  
<http://www.hup.harvard.edu/catalog.php?isbn=9780674312265>
- Coltrane, S. (2004). Elite careers and family commitment: It's (still) about gender. *Annals of the American Academy of Political and Social Science*, 596(1), 214–220.  
<https://doi.org/10.1177/0002716204268776>
- Coltrane, S., Miller, E. C., DeHaan, T., & Stewart, L. (2013). Fathers and the flexibility stigma. *Journal of Social Issues*, 69(2), 279–302. <https://doi.org/10.1111/josi.12015>
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research*. Sage Publications Inc.
- Correll, S. J. (2001). Gender and the career choice process: The role of biased self-assessments. *American Journal of Sociology*, 106(6), 1691–1730.
- Correll, S. J. (2004). Constraints into preferences: Gender, status, and emerging career aspirations. *American Sociological Review*, 69, 93–113.
- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology*, 112(5), 1297–1338.
- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes*, 69(2), 117–132. <https://doi.org/10.1006/obhd.1996.2675>
- Dalton, G. W., Thompson, P. H., & Price, R. L. (1977). The four stages of professional careers: A new look at performance by professionals. *Organizational Dynamics*.
- Day, J. C. (2018, May 8). More than 1 in 3 lawyers are women. United States Census Bureau.  
<https://www.census.gov/library/stories/2018/05/women-lawyers.html>
- Deaux, K., & Kite, M. E. (1993). Gender stereotypes. In *Psychology of women: A handbook of issues and theories* (pp. 107–139). Greenwood Press.
- Deckop, J. R., Mangel, R., & Cirka, C. C. (1999). Getting more than you pay for: Organizational citizenship behavior and pay-for-performance plans. *Academy of Management Journal*, 42(4), 420–428. <https://doi.org/10.5465/257012>
- Derks, B., Van Laar, C., Ellemers, N., & de Groot, K. (2011). Gender-bias primes elicit queen-bee responses among senior policewomen. *Psychological Science*, 22(10), 1243–1249.  
<https://doi.org/10.1177/0956797611417258>
- Di Stasio, V. (2017). Who is ahead in the labor market queue? Institutions' and employers' perspective on overeducation, undereducation, and horizontal mismatches. *American Sociological Review*, 90(2), 109–126. <https://doi.org/10.1177/0038040717694877>
- Di Stefano, G., & Gutierrez, C. (2019). Under a magnifying glass: On the use of experiments in strategy research. *Strategic Organization*, 17(4), 497–507.
- Diekmann, A. B., & Eagly, A. (2000). Stereotypes as dynamic constructs: Women and men of the past, present, and future. *Personality and Social Psychology Bulletin*, 26(10), 1171–1188.
- Doyle, J. K., & Ford, D. N. (1999). Mental models concepts revisited: Some clarifications and a reply to Lane. *System Dynamics Review*, 15, 411–415. [https://doi.org/10.1002/\(SICI\)1099-1727\(199924\)15:4<411::AID-SDR181>3.0.CO;2-R](https://doi.org/10.1002/(SICI)1099-1727(199924)15:4<411::AID-SDR181>3.0.CO;2-R)
- Duguid, M. (2011). Female tokens in high-prestige work groups: Catalysts or inhibitors of group diversification? *Organizational Behavior and Human Decision Processes*, 116(1), 104–115.  
<https://doi.org/10.1016/j.obhdp.2011.05.009>
- Duguid, M., Loyd, D. L., & Tolbert, P. S. (2012). The impact of categorical status, numeric representation, and work group prestige on preference for demographically similar others: A value threat approach. *Organization Science*, 23(2), 386–401.  
<https://doi.org/10.1287/orsc.1100.0565>
- Dumas, T. L., & Sanchez-Burks, J. (2015). The professional, the personal, and the ideal worker: Pressures and objectives shaping the boundary between life domains. *Academy of Management Annals*, 9(1), 803–843.

- Dunne, D. D., & Dougherty, D. (2016). Abductive reasoning: How innovators navigate in the labyrinth of complex product innovation. *Organization Studies*, 37(2), 131–159.
- Dutton, J. E., Ashford, S. J., & Lawrence, K. A. (2002). Red light, green light: Making sense of the organizational context for issue selling. *Organization Science*, 13(4), 355–369.
- Eagly, A. H. (2007). Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly*, 31, 1–12.
- Eagly, A. H., & Johannesen-Schmidt, M. C. (2001). The leadership styles of women and men. *Journal of Social Issues*, 57(4), 781–797.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. <https://doi.org/10.1037//0033-295X.109.3.573>
- Eagly, A., Nater, C., Miller, D. I., Kaufman, M., & Sczesny, S. (2019). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychologist*, Articles in Advance.
- Eagly, A., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In *The developmental social psychology of gender* (pp. 123–174). Lawrence Erlbaum Associates Inc.
- Edwards, H. T., & Livermore, M. A. (2009). Pitfalls of empirical studies that attempt to understand the factors affecting appellate decision-making. *Duke Law Journal*, 58(8), 1895–1989.
- Eisenhardt, K. M., Graebner, M. E., & Sonenshein, S. (2016). Grand challenges and inductive methods: Rigor without rigor mortis. *Academy of Management Journal*, 59(4), 1113–1123.
- Elliott, J. R. (2001). Referral hiring and ethnically homogeneous jobs: How prevalent is the connection and for whom? *Social Science Research*, 30, 401–425.
- England, P., Bearak, J., Budig, M. J., & Hodges, M. J. (2016). Do highly paid, highly skilled women experience the largest motherhood penalty? *American Sociological Review*, 81(6), 1161–1189.
- Ensher, E. A., & Murphy, S. E. (1997). Effects of race, gender, perceived similarity, and contact on mentor relationships. *Journal of Vocational Behavior*, 50, 460–481. <https://doi.org/10.1006/jvbe.1996.1547>
- Epstein, C. F., Seron, C., Oglensky, B., & Saute, R. (1999). *The part-time paradox: Time norms, professional life, family, and gender*. Routledge, Taylor & Francis Group.
- Erdogan, B., & Bauer, T. N. (2021). Overqualification at work: A review and synthesis of the literature. *Annual Review of Organizational Psychology and Organizational Behavior*, 8, 259–283. <https://doi.org/10.1146/annurev-orgpsych-012420-055831>
- Faniko, K., Ellemers, N., Derks, B., & Lorenzi-Cioldi, F. (2017). Nothing changes, really: Why women who break through the glass ceiling end up reinforcing it. *Personality and Social Psychology Bulletin*, 43(5), 638–651. <https://doi.org/10.1177/0146167217695551>
- Feltovich, N., Harbaugh, R., & To, T. (2002). Too Cool for School? Signalling and Countersignalling. *The RAND Journal of Economics*, 33(4), 630–649. <https://doi.org/10.2307/3087478>
- Fernandez, R. M., & Campero, S. (2017). Gender sorting and the Glass Ceiling in high-tech firms. *ILR Review*, 70(1), 73–104.
- Fernandez, R. M., Castilla, E., & Moore, P. (2000). Social capital at work: Networks and employment at a phone center. *American Journal of Sociology*, 105(5), 14.
- Fernandez, R. M., & Sosa, M. L. (2005). Gendering the job: Networks and recruitment at a call center. *American Journal of Sociology*, 111(3), 859–904.
- Fernandez-Mateo, I., & King, Z. (2011). Anticipatory sorting and gender segregation in temporary employment. *Management Science*, 57(6), 989–1008.
- Filisko, G. M. (2014). Law review: Will it open doors for your career? <https://abaforlawstudents.com/2014/03/01/law-review-will-open-doors-career/>
- Firestone, W. A. (1993). Alternative arguments for generalizing from data as applied to qualitative research. *Educational Researcher*, 22(4), 16–23. <https://doi.org/10.3102/0013189X022004016>

- Fiske, S., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. <https://doi.org/10.1037//0022-3514.82.6.878>
- Fiske, S., & Stevens, L. E. (1993). *What's so special about sex? Gender stereotyping and discrimination*. Sage Publications.
- Flöge, L., & Merrill, D. M. (1985). Tokenism reconsidered: Male nurses and female physicians in hospital settings. *Social Forces*, 64, 925–947.
- Forrester, J. W. (1961). *Industrial dynamics*. MIT Press.
- Foschi, M. (1996). Double standards in the evaluation of men and women. *Social Psychology Quarterly*, 59(3), 237–254.
- Foschi, M. (2009). Gender, performance level, and competence standards in task groups. *Social Science Research*, 38(2), 447–457.
- Frank, R. H. (1978). Why women earn less: The theory and estimation of differential overqualification. *American Economic Review*, 68(3), 360–373.
- Friday, E., Friday, S. S., & Green, A. L. (2004). A reconceptualization of mentoring and sponsoring. *Management Decision*, 42(5), 628–644. <https://doi.org/10.1108/00251740410538488>
- Galperin, R., Hahl, O., Sterling, A. D., & Guo, J. (2020). Too good to hire? Capability and inferences about commitment in labor markets. *Administrative Science Quarterly*, 65(2), 275–313.
- Gary, M. S., & Wood, R. E. (2011). Mental models, decision rules, and performance heterogeneity. *Strategic Management Journal*, 32, 569–594. <https://doi.org/10.1002/smj.899>
- Gavetti, G., & Levinthal, D. A. (2000). Looking forward and looking back: Cognitive and experiential search. *Administrative Science Quarterly*, 45(1), 113–137. <https://doi.org/10.2307/2666981>
- Gerhart, B., & Fang, M. (2014). Pay for (individual) performance: Issues, claims, evidence, and the role of sorting effects. *Human Resource Management Review*, 24(1), 41–52. <https://doi.org/10.1016/j.hrmr.2013.08.010>
- Giscombe, K., Blake-Beard, S., Butts, M. M., Ensher, E., & Sharif, M. M. (2017). A critical dialogue on mentorship and sponsorship. *Academy of Management Proceedings*, 2016.
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine.
- Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in competitive environments: Gender differences. *Quarterly Journal of Economics*, 118(3), 1049–1074.
- Goffman, E. (1959). *The presentation of self in everyday life*. Doubleday.
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. (2012). A meta-analysis of the regulatory nomological work: Work-related antecedents and consequences. *Journal of Vocational Behavior*, 80(1), 160–172. <https://doi.org/10.1016/j.jvb.2011.07.005>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161–178. <https://doi.org/10.2307/2092623>
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380.
- Granovetter, M. (1995). *Getting a job: A study of contacts and careers* (2nd ed.). Harvard University Press.
- Greguletz, E., Diehl, M.-R., & Kreutzer, K. (2018). Why women build less effective networks than men: The role of structural exclusion and personal hesitation. *Human Relations*, 72(7), 1234–1262. <https://doi.org/10.1177/0018726718804303>
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Sage Publications Inc.
- Gustafsson, S. (2005). Having kids later: Economic analysis for industrialized countries. *Review of Economics of the Household*, 3, 5–16.
- Hahl, O. (2016). Turning back the clock on baseball: The increased prominence of extrinsic rewards and demand for authenticity. *Organization Science*, 27(4), 929–953.

- Hahl, O., & Zuckerman, E. W. (2014). The denigration of heroes? How the status attainment process shapes attributions of considerateness and authenticity. *American Journal of Sociology*, 120(2), 504–554.
- Hakim, C. (2018). *Models of the Family in Modern Societies: Ideals and Realities: Ideals and Realities*. Routledge.
- Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44(1), 82. <https://doi.org/10.2307/2667032>
- Harari, M. B., Manapragada, A., & Viswesvaran, C. (2017). Who thinks they're a big fish in a small pond and why does it matter? A meta-analysis of perceived overqualification. *Journal of Vocational Behavior*, 102, 28–47.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent in the organizational ladder. *Journal of Social Issues*, 57(4), 657–674.
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, 113–135. <https://doi.org/10.1016/j.riob.2012.11.003>
- Heilman, M. E., & Haynes, M. C. (2005). No credit where credit is due: Attributional rationalization of women's success in male-female teams. *Journal of Applied Psychology*, 90(5), 905–916. <https://doi.org/10.1037/0021-9010.90.5.905>
- Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks? The implied communality deficit. *Journal of Applied Psychology*, 92(1), 81–92.
- Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416–427. <https://doi.org/10.1037/0021-9010.89.3.416>
- Henricksen, W. (2008). *Making law review: The expert's guide to mastering the write-on competition*. Carolina Academic Press.
- Hess, A. G. (2015). The collapse of the house that Ruth built: The impact of the feeder system on female judges and the federal judiciary, 1970-2014. *Journal of Gender, Social Policy & the Law*, 24(1), 61–106.
- Hewlett, S. A. (2013a). *Forget a mentor, find a sponsor: A new way to fast-track your career*. Harvard Business Review Press.
- Hewlett, S. A. (2013b). Mentors Are Good. Sponsors Are Better. *The New York Times*. <https://www.nytimes.com/2013/04/14/jobs/sponsors-seen-as-crucial-for-womens-career-advancement.html>
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300.
- Higgins, E. T. (2005). Value from regulatory fit. *Current Directions in Psychological Science*, 14(4), 209–213.
- Higgins, E. T., Roney, C. J. R., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance distinct self-regulatory systems. *Journal of Personality and Social Psychology*, 66(2), 276–286. <https://doi.org/10.1037/0022-3514.66.2.276>
- Hill, A. D., Upadhyay, A. D., & Beekun, R. I. (2015). Do female and ethnically diverse executives endure inequity in the CEO position or do they benefit from their minority status? An empirical examination. *Strategic Management Journal*, 36, 1115–1134. <https://doi.org/10.1002/smj.2274>
- Hodges, M. J., & Budig, M. J. (2010). Who gets the daddy bonus? Organizational hegemonic masculinity and the impact of fatherhood on earnings. *Gender and Society*, 24(6), 717–745. <https://doi.org/10.1177/0891243210386729>
- Hodgkinson, G. P., Brown, N. J., Maule, A. J., Glaister, K. W., & Pearman, A. D. (1999). Breaking the frame: An analysis of strategic cognition and decision-making under uncertainty. *Strategic Management Journal*, 20(10), 977–985. [https://doi.org/10.1002/\(SICI\)1097-0266\(199910\)20:10<977::AID-SMJ58>3.0.CO;2-X](https://doi.org/10.1002/(SICI)1097-0266(199910)20:10<977::AID-SMJ58>3.0.CO;2-X)

- Hodson, G., Dovidio, J. F., & Gaertner, S. L. (2002). Processes in racial discrimination: Differential weighting of conflicting information. *Personality and Social Psychology Bulletin*, 28(4), 460–471. <https://doi.org/10.1177/0146167202287004>
- Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35(2), 286–316. <https://doi.org/10.2307/2393392>
- Hoobler, J. M., Hu, J., & Wilson, M. (2010). Do workers who experience conflict between the work and family domains hit a “glass ceiling?”: A meta-analytic examination. *Journal of Vocational Behavior*, 77(3), 481–494. <https://doi.org/10.1016/j.jvb.2010.07.001>
- Hultin, M. (2003). Some take the glass escalator, some hit the glass ceiling? Career consequences of occupational sex segregation. *Work and Occupations*, 30(1), 30–61. <https://doi.org/10.1177/0730888402239326>
- Iacus, S. M., King, G., & Porro, G. (2017). Causal inference without balance checking: Coarsened exact matching. *Political Analysis*, 20(1), 1–24. <https://doi.org/10.1093/pan/mpr013>
- Ibarra, H. (1992). Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 37(3), 422–447.
- Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18(1), 56–87.
- Ibarra, H. (1997). Paving an alternative route: Gender differences in managerial networks. *Social Psychology Quarterly*, 60(1), 91–102.
- Ibarra, H., Carter, N. M., & Silva, C. (2010a). Why men still get more promotions than women. *Harvard Business Review*, September.
- Ibarra, H., Carter, N. M., & Silva, C. (2010b). Why men still get more promotions than women. *Harvard Business Review*, September.
- Idson, L. C., Liberman, N., & Higgins, E. T. (2000). Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology*, 36, 252–274. <https://doi.org/10.1006/jesp.1999.1402>
- Indiviglio, D. (2010, March 29). The overqualified worker problem. *The Atlantic*.
- Jenkins Jr., G. D., Mitra, A., Gupta, N., & Shaw, J. D. (1998). Are financial incentives related to performance? A meta-analytic review of empirical research. *Journal of Applied Psychology*, 83(5), 777–787. <https://doi.org/10.1037/0021-9010.83.5.777>
- Jha, A. K. (2013). Time to get serious about pay for performance. *JAMA*, 309(4), 347–348. <https://doi.org/10.1001/jama.2012.196646>
- Johnson, G. J., & Johnson, W. R. (2000). Perceived overqualification and dimensions of job satisfaction: A longitudinal analysis. *The Journal of Psychology*, 134(5), 537–555.
- Johnson, W. R., & Johnson, G. J. (2002). An evaluation of perceived overqualification scale across work settings. *The Journal of Psychology*, 136(4), 425–441.
- Joshi, A. (2014). By whom and when is women’s expertise recognized? The interactive effects of gender and education in science and engineering teams. *Administrative Science Quarterly*, 59(2), 202–239. <https://doi.org/10.1177/0001839214528331>
- Jovanovic, B. (1979). Job matching and the theory of turnover. *Journal of Political Economy*, 87(5), 972–990.
- Kalev, A., Dobbin, F., & Kelly, E. (2006). Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies. *American Sociological Review*, 71, 589–617.
- Kang, C. (2014, April 2). Google data-mines its approach to promoting women. *The Washington Post*. <https://www.washingtonpost.com/news/the-switch/wp/2014/04/02/google-data-mines-its-women-problem/>
- Kanter, R. M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American Sociological Review*, 33(4), 499–517.
- Kanter, R. M. (1977). *Men and women of the corporation*. Basic Books, A Member of the Perseus Books Group.

- Kilduff, M., & Tsai, W. (2003). *Social networks and organizations*. Sage Publications.  
<http://discovery.ucl.ac.uk/1383153/>
- Killewald, A. (2012). A reconsideration of the fatherhood premium: Marriage, coresidence, biology, and fathers' wages. *American Sociological Review*, 78(1), 96–116.
- Kim, P. (2008). Deliberation and strategy on the United States Courts of Appeals: An empirical exploration of panel effects. *University of Pennsylvania Law Review*, 157, 1319–1381.
- King, M., Ortenblad, M., & Ladge, J. L. (2018). What will it take to make finance more gender balanced? *Harvard Business Review*. <https://hbr.org/2018/12/what-will-it-take-to-make-finance-more-gender-balanced>
- Kozinski, A. (1991). Confessions of a bad apple. *The Yale Law Journal*, 100(6), 1707–1730.
- Krackhardt, D. (1987). Cognitive social structures. *Social Networks*, 9, 109–134.
- Kram, K. E. (1985). Mentoring at work: Developmental relationships in organizational life. Scott, Foresman. <http://www.worldcat.org/title/mentoring-at-work-developmental-relationships-in-organizational-life/oclc/10998172?page=citation>
- Larkin, I., Pierce, L., & Gino, F. (2012). The psychological costs of pay-for-performance: Implications for the strategic compensation of employees. *Strategic Management Journal*, 33, 1194–1214.  
<https://doi.org/10.1002/smj.1974>
- Legal Information Institute. (2018). 28 U.S. Code § 371—Retirement on salary; retirement in senior status | US Law. <https://www.law.cornell.edu/uscode/text/28/371>
- Leslie, L. M., Manchester, C. F., & Dahm, P. C. (2017). Why and when does the gender gap reverse? Diversity goals and the pay premium for high potential women. *Academy of Management Journal*, 60(2), 402–432. <https://doi.org/10.5465/amj.2015.0195>
- Leung, M. D. (2014). Dilettante or renaissance person? How the order of job experiences affects hiring in an external labor market. *American Sociological Review*, 79(1), 136–158.
- Levesque, L. L., O'Neill, R. M., Nelson, T., & Dumas, C. (2005). Sex differences in the perceived importance of mentoring functions. *Career Development International*, 10(6–7), 429–443.  
<https://doi.org/10.1007/s10681-013-0976-1>
- Levinson, D. J., Darrow, C. N., Klein, E. B., & McKee, B. (1979). *The seasons of a man's life*. Thousand Oaks, CA: Sage Publications. <https://doi.org/10.1177/105960117900400214>
- Levy, M. K. (2017). Panel assignment in the federal courts of appeals. *Cornell Law Review*, 103(1), 65–116.
- Lewis, A. C., & Sherman, S. J. (2003). Hiring you makes me look bad: Social-identity based reversals of the ingroup favoritism effect. *Organizational Behavior and Human Decision Processes*, 90(2), 262–276. [https://doi.org/10.1016/S0749-5978\(02\)00538-1](https://doi.org/10.1016/S0749-5978(02)00538-1)
- Lewis, N. (2003). A once-doomed nomination wins Senate panel approval.
- Liebbrandt, A., & List, J. A. (2015). Do women avoid salary negotiations? Evidence from a large scale natural field experiment. *Management Science*, 61(9), 2016–2024.
- Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25, 467–487.  
<https://doi.org/10.1108/14691930410550381>
- Lin, N. (2000). Inequality in social capital. *Contemporary Sociology*, 29(6), 785–795.  
<https://doi.org/10.2307/2654086>
- Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge University Press.  
<http://www.socialcapitalgateway.org/content/book/lin-n-2001-social-capital-theory-social-structure-and-action-cambridge-cambridge-univer>
- Lin, N., Ensel, W. M., & Vaughn, J. C. (1981). Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review*, 46(4), 393–405.  
<https://doi.org/10.2307/2095260>
- Litman, L., Robinson, J., & Abberbock, T. (2017a). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 49(2), 433–442.  
<https://doi.org/10.3758/s13428-016-0727-z>

- Litman, L., Robinson, J., & Abberbock, T. (2017b). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 49(2), 433–442. <https://doi.org/10.3758/s13428-016-0727-z>
- Lundberg, S., & Rose, E. (2002). The effects of sons and daughters on men's labor supply and wages. *The Review of Economics and Statistics*, 84(2), 251–268. <https://doi.org/10.1162/003465302317411514>
- Lutter, M. (2015). Do women suffer from network closure? The moderating effect of social capital on gender inequality in a project-based labor market, 1929 to 2010. *American Sociological Review*, 80(2), 329–358. <https://doi.org/10.1177/0003122414568788>
- Lyness, K. S., & Heilman, M. E. (2006). When fit is fundamental: Performance evaluations and promotions of upper-level female and male managers. *Journal of Applied Psychology*, 91(4), 777–785.
- Lyness, K. S., & Thompson, D. E. (2000). Climbing the corporate ladder: Do female and male executives follow the same route? *Journal of Applied Psychology*, 85(1), 86–101. <https://doi.org/10.1037/0021-9010.85.1.86>
- Lynn, M. (1991). Scarcity effects on value: A quantitative review of the commodity theory literature. *Psychology and Marketing*, 8(1), 44–57.
- Marriage, M. (2019, January 29). Big consultancies struggle to close the gender pay gap. *Financial Times*. <https://www.ft.com/content/c8118e14-143e-11e9-a168-d45595ad076d>
- Marsden, P. V., & Gorman, E. H. (2001). Social networks, job changes, and recruitment. In I. Berg & A. L. Kalleberg (Eds.), *Sourcebook of labor markets: Evolving structures and processes* (pp. 467–502). Plenum Publishers.
- Mauro, T. (2015). D.C. Circuit's Patricia Millet reflects on clerking, diversity. *The National Law Journal*.
- McDonald, S. (2011). What's in the "old boys" network? Accessing social capital in gendered and racialized networks. *Social Networks*, 33, 317–330. <https://doi.org/10.1016/j.socnet.2011.10.002>
- McDonald, S., Lin, N., & Ao, D. (2009). Networks of opportunity: Gender, race, and job leads. *Social Problems*, 56(3), 385–402. <https://doi.org/10.1525/sp.2009.56.3.385>.This
- McGoldrick, K., & Robst, J. (1996). Gender differences in overeducation: A test of the theory of differential overqualification. *American Economic Review: Papers & Proceedings*, 86, 280–284.
- McGuire, G. M. (2002). Gender, race, and the shadow structure: A study of informal networks and inequality in a work organization. *Gender and Society*, 16(3), 303–322. <https://doi.org/10.1177/0891243202016003003>
- McPherson, J. M., Smith-lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415–444.
- Menon, T., & Smith, E. B. (2014). Identities in flux: Cognitive network activation in times of change. *Social Science Research*, 45, 117–130. <https://doi.org/10.1016/j.ssresearch.2014.01.001>
- Mercurio, Z. (2015). Affective commitment as a core essence of organizational commitment: An integrative literature review. *Human Resource Development Review*, 14(4), 389–414.
- Merluzzi, J., & Phillips, D. J. (2016). The specialist discount: Negative returns for MBAs with focused profiles in investment banking. *Administrative Science Quarterly*, 61(1), 87–124.
- Merluzzi, J., & Sterling, A. D. (2017). Lasting effects? Referrals and career mobility of demographic groups in organizations. *ILR Review*, 70(1), 105–131. <https://doi.org/10.1177/0019793916669507>
- Merton, R. (1958). The Matthew Effect in science. *Science*, 128(3314), 9–15. <https://doi.org/10.1126/science.128.3314.9>
- Meyer, J. P., & Allen, N. J. (1991). The three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61–89.
- Meyer, J. P., Paunonen, S. V., Gellatly, I. R., Goffin, R. D., & Jackson, D. N. (1989). Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology*, 74(1), 152–156. <https://doi.org/10.1037/0021-9010.74.1.152>

- Mick, D. G. (1996). Are studies of dark side variables confounded by socially desirable responding? The case of materialism. *Journal of Consumer Research*, 23, 106–119.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Sage Publications Inc.
- Miles, T. J., & Sunstein, C. R. (2008). The new legal realism. *University of Chicago Law Review*, 75, 823–881.
- Mohr, T. S. (2014). Why women don't apply for jobs unless they're 100% qualified. *Harvard Business Review*.
- Molm, L. D. (2010). The structure of reciprocity. *Social Psychology Quarterly*, 73(2), 119–131. <https://doi.org/10.1177/0190272510369079>
- Morse, J. M. (1995). Significance of saturation. *Qualitative Health Research*, 5(2), 147–149.
- Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *PNAS*, 109(41), 16474–16479. <https://doi.org/10.1073/pnas.1211286109>
- Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break the gender rules: Status incongruity and backlash against modest men. *Psychology of Men and Masculinity*, 11(2), 140–151. <https://doi.org/10.1037/a0018093>
- Moss-racusin, C. A., & Rudman, L. A. (2010). Disruptions in women's self-promotion: The backlash avoidance model. *Psychology of Women Quarterly*, 34, 186–202.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. Academic Press.
- Nagel, R. (1995). Unraveling the guessing games: An experimental study. *American Economic Review*, 85(5), 1313–1326.
- Noe, R. A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, 41, 457–479.
- Okimoto, T. G., & Brescoll, V. L. (2010). The price of power: Power seeking and backlash against female politicians. *Personality and Social Psychology Bulletin*, 36(7), 923–936. <https://doi.org/10.1177/0146167210371949>
- Olson, E. (2016, December 16). Women make up the majority of U.S. law students for first time. *The New York Times*.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology*, 56, 365–392. <https://doi.org/10.1146/annurev.psych.56.091103.070141>
- Peppers, T. C. (2006). *Courtiers of the marble palace: The rise and influence of the Supreme Court law clerk*. Stanford University Press.
- Petersen, T., & Morgan, L. A. (1995). Separate and unequal: Occupation-establishment sex segregation and the gender wage gap. *American Journal of Sociology*, 101(2), 329–365. <https://doi.org/10.1086/230727>
- Petersen, T., Saporta, I., & Seidel, M.-D. L. (2000). Offering a job: Meritocracy and social networks. *American Journal of Sociology*, 106(3), 763–816.
- Pew Research Center. (2015a). Women in leadership positions. <http://www.pewsocialtrends.org/2015/01/14/chapter-1-women-in-leadership/>
- Pew Research Center. (2015b). Women in leadership positions. Pew Research Center. <http://www.pewsocialtrends.org/2015/01/14/chapter-1-women-in-leadership/>
- Phelan, J. E., Moss-Racusin, C. A., & Rudman, L. A. (2008). Competent yet out in the cold: Shifting criteria for hiring reflect backlash toward agentic women. *Psychology of Women Quarterly*, 32, 406–413.
- Podolny, J. M. (2005). *Status signals: A sociological study of market competition*. Princeton University Press.



- Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47(11), 1451–1458.  
<https://doi.org/10.1016/j.ijnurstu.2010.06.004>
- Porac, J. F., & Thomas, H. (1990). Taxonomic mental models in competitor definition. *Academy of Management Review*, 15(2), 224–240. <https://doi.org/10.5465/amr.1990.4308155> View article
- Porac, J. F., Thomas, H., Wilson, F., Paton, D., & Kanfer, A. (1995). Rivalry and the industry model of scottish knitwear producers. *Administrative Science Quarterly*, 40(2), 203–227.  
<https://doi.org/10.2307/2393636>
- Preacher, K., & Hayes, A. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 1–18.
- Preacher, K., Rucker, D., & Hayes, A. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185–227.
- Price, G. N. (2009). The problem of the 21st century: Economics faculty and the color line. *Journal of Socio-Economics*, 38, 331–343. <https://doi.org/10.1016/j.socec.2008.10.007>
- Pronin, E. (2007). Perception and misperception of bias in human judgment. *Trends in Cognitive Sciences*, 11(1), 37–43.
- Pronin, E., Lin, D. Y., & Ross, L. (2002). The bias blind spot: Perceptions of bias in self versus others. *Personality and Social Psychology Bulletin*, 28, 369–381.
- Quadlin, N. (2018). The mark of a woman's record: Gender and academic performance in hiring. *American Sociological Review*, 83(2), 331–360.
- Ragins, B. R., & Cotton, J. L. (1993). Gender and willingness to mentor in organizations. *Journal of Management*, 19, 97–111.
- Ragins, B. R., & Cotton, J. L. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, 84, 529–550.
- Ragins, B. R., & Scandura, T. A. (1997). The way we were: Gender and termination of mentoring relationships. *Journal of Applied Psychology*, 82, 945–953.
- Reagans, R., & Mcevily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly*, 48, 240–267.
- Reagans, R., & Zuckerman, E. W. (2001). Networks, diversity, and productivity: The social capital of corporate R&D teams. *Organization Science*, 12(4), 502–517.
- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10(3), 465–476. <https://doi.org/10.5465/amr.1985.4278960>
- Reid, E. (2015). Embracing, passing, revealing, and the ideal worker image: How people navigate expected and experienced professional identities. *Organization Science*, 26(4), 941–1261.
- Reskin, B. F., McBrier, D. B., & Kmec, J. A. (1999). The determinants and consequences of workplace sex and race composition. *Annual Review of Sociology*, 25, 335–361.
- Ridgeway, C. (1997). Interaction and the conservation of gender inequality: Considering employment. *American Sociological Review*, 62(4), 218–235. <https://doi.org/10.2307/2657301>
- Ridgeway, C. (2001). Gender, status, and leadership. *Journal of Social Issues*, 57(4), 637–655.
- Ridgeway, C. (2011). *Framed by gender: How gender inequality persists in the modern world*. Oxford University Press.
- Ridgeway, C., & Correll, S. J. (2004a). Motherhood as a status characteristic. *Journal of Social Issues*, 60(4), 683–700.
- Ridgeway, C., & Correll, S. J. (2004b). Unpacking the gender system: A theoretical perspective on gender beliefs and social relations. *Gender and Society*, 18(4), 510–531.  
<https://doi.org/10.1177/0891243204265269>
- Righetti, F., Finkenauer, C., & Rusbult, C. (2011). The benefits of interpersonal regulatory fit for individual goal pursuit. *Journal of Personality and Social Psychology*, 101(4), 720–736.  
<https://doi.org/10.1037/a0023592>
- Rivera, L. A. (2012). Hiring as cultural matching: The case of elite professional service firms. *American Sociological Review*, 77(6), 999–1022.

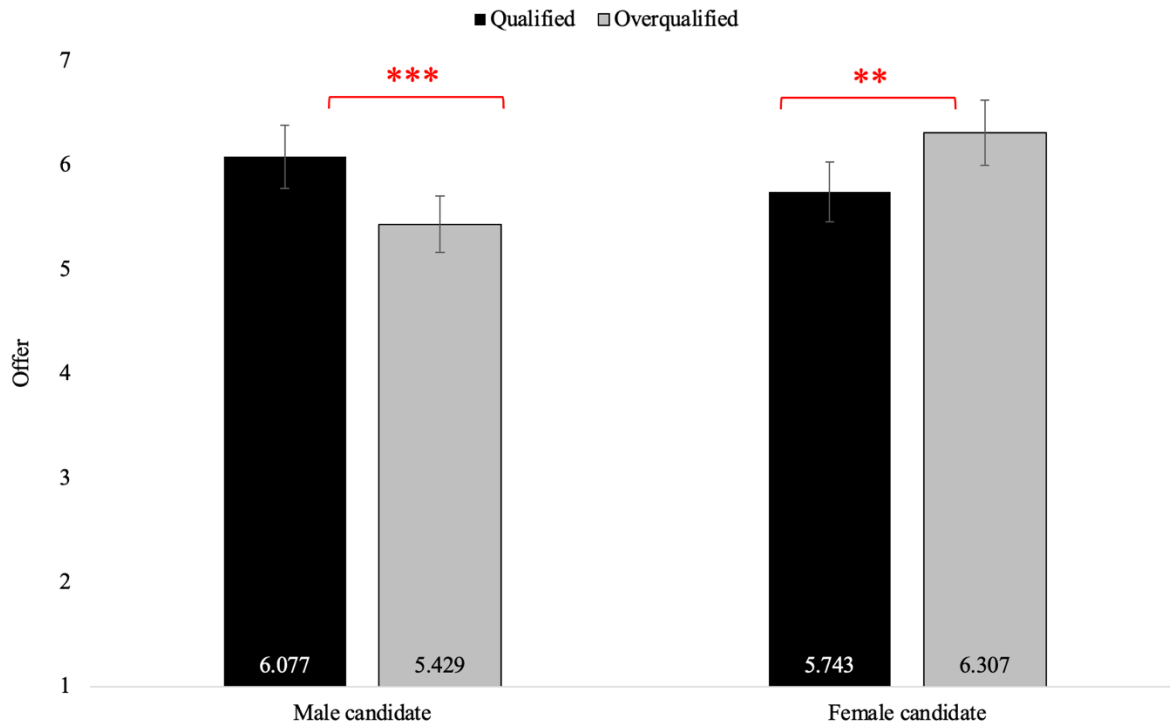
- Rivera, L. A. (2017). When two bodies are (not) a problem: Gender and relationship status discrimination in academic hiring. *American Sociological Review*, 82(6), 1111–1138. <https://doi.org/10.1177/0003122417739294>
- Rivera, L. A., & Tilcsik, A. (2016). Class advantage, commitment penalty: The gendered effect of social class signals in an elite labor market. *American Sociological Review*, 81(6), 1097–1131.
- Rose, S. (2017). Mismatch: How many workers with a bachelor's degree are overqualified for their jobs? (pp. 1–40) [Research Report]. Urban Institute. [https://www.urban.org/research/publication/mismatch-how-many-workers-bachelors-degree-are-overqualified-their-jobs/view/full\\_report](https://www.urban.org/research/publication/mismatch-how-many-workers-bachelors-degree-are-overqualified-their-jobs/view/full_report)
- Rosette, A. S., & Tost, L. P. (2010). Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology*, 95(2), 221–235. <https://doi.org/10.1037/a0018204>
- Rubineau, B., & Fernandez, R. M. (2013). Missing links: Referrer behavior and job segregation. *Management Science*, 59(11), 2470–2489.
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology*, 75, 629–645.
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743–762. <https://doi.org/10.1111/0022-4537.00239>
- Rudman, L. A., & Mescher, K. (2013). Penalizing men who request family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues*, 69(2), 322–340.
- Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, 48, 165–179. <https://doi.org/10.1016/j.jesp.2011.10.008>
- Sarsons, H. (2017). Recognition for group work: Gender differences in academia. *American Economic Review: Papers & Proceedings*, 107, 141–145. <https://doi.org/10.1257/aer.p20171126>
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57(2), 95–100. <https://doi.org/10.1037/h0037128>
- Schein, V. E. (1975). Relationships between sex role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology*, 60(3), 340–344. <https://doi.org/10.1037/h0076637>
- Schein, V. E. (2001). A global look at the psychological barriers to women's progress in management. *Journal of Social Issues*, 57(4), 675–688. <https://doi.org/10.1111/0022-4537.00235>
- Schwenk, C. R. (1984). Cognitive simplification processes in strategic decision-making. *Strategic Management Journal*, 5(2), 111–128. <https://doi.org/10.1002/smj.4250050203>
- Shapiro, E. C., Haseltine, F. P., & Rowe, M. P. (1978). Moving up: Role models, mentors, and the “patron system.” *Sloan Management Review*, 19(3), 51–58.
- Shea, C. T., Menon, T., Smith, E. B., & Emich, K. (2015). The affective antecedents of cognitive social network activation. *Social Networks*, 43, 91–99.
- Shen, K., & Kuhn, P. (2012). Do Chinese employers avoid hiring overqualified workers? Evidence from an internet job board. IZA Discussion Papers, No. 6848 at the Institute for the Study of Labor, 1–26.
- Sherf, E. N., Tangirala, S., & Connealy Weber, K. (2017). It's not my place! Psychological standing and men's voice and participation in gender-parity initiatives. *Organization Science*, 28(2), 193–210. <https://doi.org/10.1287/orsc.2017.1118>
- Small, M. L. (2009). How many cases do I need? On science and the logic of case selection in field-based research. *Ethnography*, 10(1), 5–38.
- Smith, E. B., Menon, T., & Thompson, L. (2016). Status differences in the cognitive activation of social networks. *Organization Science*, 23(1), Online first.
- Smith, S. S. (2005). “Don't put my name on it”: Social capital activation and job-finding assistance among the Black urban poor. *American Journal of Sociology*, 111(1), 1–57.

- Smith, S. S. (2010). A test of sincerity: How Black and Latino service workers make decisions about making referrals. *Annals of the American Academy of Political and Social Science*, 629(1), 30–52. <https://doi.org/10.1177/0002716210366532>
- Solinger, O. N., Van Olffen, W., Roe, R. A., & Hofmans, J. (2013). On becoming (un)committed: A taxonomy and test of newcomer onboarding scenarios. *Organization Science*, 24(6), 1640–1661. <https://doi.org/10.1287/orsc.1120.0818>
- Sorenson, O., & Waguespack, D. M. (2006). Social structure and exchange: Self-confirming dynamics in hollywood. *Administrative Science Quarterly*, 51, 560–589.
- Spence, A. M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374.
- Spence, A. M. (1974). Market signaling: Informational transfer in hiring and related screening processes (Vol. 143). Harvard University Press.
- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, 89(6), 845–851. <https://doi.org/10.1037/0022-3514.89.6.845>
- Srivastava, S. B., & Sherman, E. L. (2015). Agents of change or cogs in the machine? Reexamining the influence of female managers on the gender wage gap. *American Journal of Sociology*, 120(6), 1778–1808.
- Stahl, D. O., & Wilson, P. W. (1994). Experimental evidence on players' models of other players. *Journal of Economic Behavior & Organization*, 25(3), 309–327.
- Stahl, D. O., & Wilson, P. W. (1995). On players' models of other players: Theory and experimental evidence. *Games and Economic Behavior*, 10, 218–254.
- Sterling, A. D. (2014). Friendships and search behavior in labor markets. *Management Science*, 60(9), 2341–2354.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Sage Publications Inc.
- Strauss, A., & Corbin, J. (1998a). Axial coding. In *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed., pp. 123–142). Sage Publications Inc.
- Strauss, A., & Corbin, J. (1998b). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Sage Publications.
- Strauss, A., & Corbin, J. (1998c). Open coding. In *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed., pp. 101–121). Sage Publications Inc.
- Stuart, T. E., Hoang, H., & Hybels, R. C. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly*, 44(2), 315. <https://doi.org/10.2307/2666998>
- Sunstein, C. R., Schkade, D., Ellman, L. M., & Sawicki, A. (2006). Are judges political? Brookings Institute.
- Supreme Court of the United States. (2016). Public Information Office.
- Tan, D., & Rider, C. (2017). Let them go? How losing employees to competitors can enhance firm status. *Strategic Management Journal*, 38, 1848–1874. <https://doi.org/10.1002/smj.2630>
- Taylor, E. Z., & Curtis, M. B. (2018). Mentoring: A path to prosocial behavior. *Journal of Business Ethics*, 152, 1133–1148. <https://doi.org/10.1007/s10551-016-3325-1>
- Tepper, K., Shaffer, B. C., & Tepper, B. J. (1996). Latent structure of mentoring function scales. *Educational and Psychological Measurement*, 56(5), 848–857. <https://doi.org/10.1177/0013164496056005013>
- The data on women leaders. (2018). Pew Research Center.
- The NYT Editorial Board. (2013, May). What Makes the D.C. Circuit Different? *The New York Times*.
- Thibaut, J. W., & Kelly, H. H. (1959). *The social psychology of groups*. Wiley.
- Tilly, C., & Tilly, C. (1998). *Work under capitalism*. Westview Press.
- Tobias, C. (2014). Tips for capturing 2014 federal court clerkships. *Vanderbilt Law Review*, 66, 145–152.
- Townsend, N. W. (2002). *The package deal: Marriage, work, and fatherhood in men's lives*. Temple University Press.

- Turco, C. J. (2010). Cultural foundations of tokenism: Evidence from the leveraged buyout industry. *American Sociological Review*, 75(6), 894–913.
- Turner, J. (2003, February 7). What's so important about the Washington, D.C., Circuit Court of Appeals? Slate. <https://slate.com/news-and-politics/2003/02/the-second-highest-court-in-the-land.html>
- Uhlmann, E., & Cohen, G. L. (2005). Constructed criteria: Redefining merit to justify discrimination. *Psychological Science*, 16(6), 474–480.
- U.S. Courts. (2017a). Court Role and Structure. <http://www.uscourts.gov/about-federal-courts/court-role-and-structure>
- U.S. Courts. (2017b). FAQs: Federal Judges. <http://www.uscourts.gov/faqs-federal-judges>
- U.S. News & World Report. (2018). Best Law Schools Ranked in 2019. <https://www.usnews.com/best-graduate-schools/top-law-schools/law-rankings>
- van Emmerik, IJ. H. (2006). Gender differences in the creation of different types of social capital: A multilevel study. *Social Networks*, 28(1), 24–37.
- Waldfoegel, J. (1997). The effect of children on women's wages. *American Sociological Review*, 62(2), 209–217.
- Ward, A., & Weiden, D. L. (2006). *Sorcerers apprentices: 100 years of law clerks at the United States Supreme Court*. New York University Press.
- Warner, J., & Corley, D. (2017a). The Women's Leadership Gap.
- Warner, J., & Corley, D. (2017b). The Women's Leadership Gap. Center for American Progress. <https://www.americanprogress.org/issues/women/reports/2017/05/21/432758/womens-leadership-gap/>
- Wecker, M. (2012). Law review leads to legal jobs, recruiters say. U.S. News.
- Wei, J., Zheng, W., & Zhang, M. (2011). Social capital and knowledge transfer: A multi-level analysis. *Human Relations*, 64(11), 1401–1423.
- Weick, K. E. (1979). *The social psychology of organizing*. Addison-Wesley.
- Weick, K. E. (1985). Sources of order in underorganized systems: Themes in recent organizational theory. In Y. S. Lincoln (Ed.), *Organizational theory and inquiry* (pp. 106–136). Sage Publications Inc.
- Weisshaar, K. (2018). From opt out to blocked out: The challenges for labor market re-entry after family-related employment lapses. *American Sociological Review*, 83(1), 34–60. <https://doi.org/10.1177/0003122417752355>
- Williams, C. L. (1992). The glass escalator: Hidden advantages for men in the “female” professions. *Social Problems*, 39(3), 253–267.
- Williams, J. (2000). *Unbending gender: Why family and work conflict and what to do about it*. Oxford University Press.
- Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes: A multinational study (Revised)*. Sage Publications.
- Woehler, M. L., Cullen-Lester, K. L., Porter, C. M., & Frear, K. A. (2021). Whether, how, and why networks influence men's and women's careers: Review and research agenda. *Journal of Management*, 47(1), 207–236. <https://doi.org/10.1177/0149206320960529>
- Wooldridge, J. M. (2003). Cluster-sample methods in applied econometrics. *American Economic Review: Papers & Proceedings*, 93, 133–138.
- Wynn, A. T., & Cornell, S. J. (2017). Gendered perceptions of fit in technology companies. *Social Sciences*, 6(2), 45–73.
- Yakubovich, V., & Lup, D. (2006). Stages of the recruitment process and the referrer's performance effect. *Organization Science*, 17(6), 710–723.
- Yang, Y., Chawla, N. V., & Uzzi, B. (2019). A network's gender composition and communication pattern predict women's leadership success. *PNAS*, 116(6), 2033–2038.
- Yin, R. K. (2003). *Case study research: Design and methods*. Sage Publications Inc.

- Yoder, J. D. (1991). Rethinking tokenism: Looking beyond the numbers. *Gender and Society*, 5(2), 178–192.
- Zimmer, B. (2015, April 3). The phrase “glass ceiling” stretches back decades. *Wall Street Journal*.

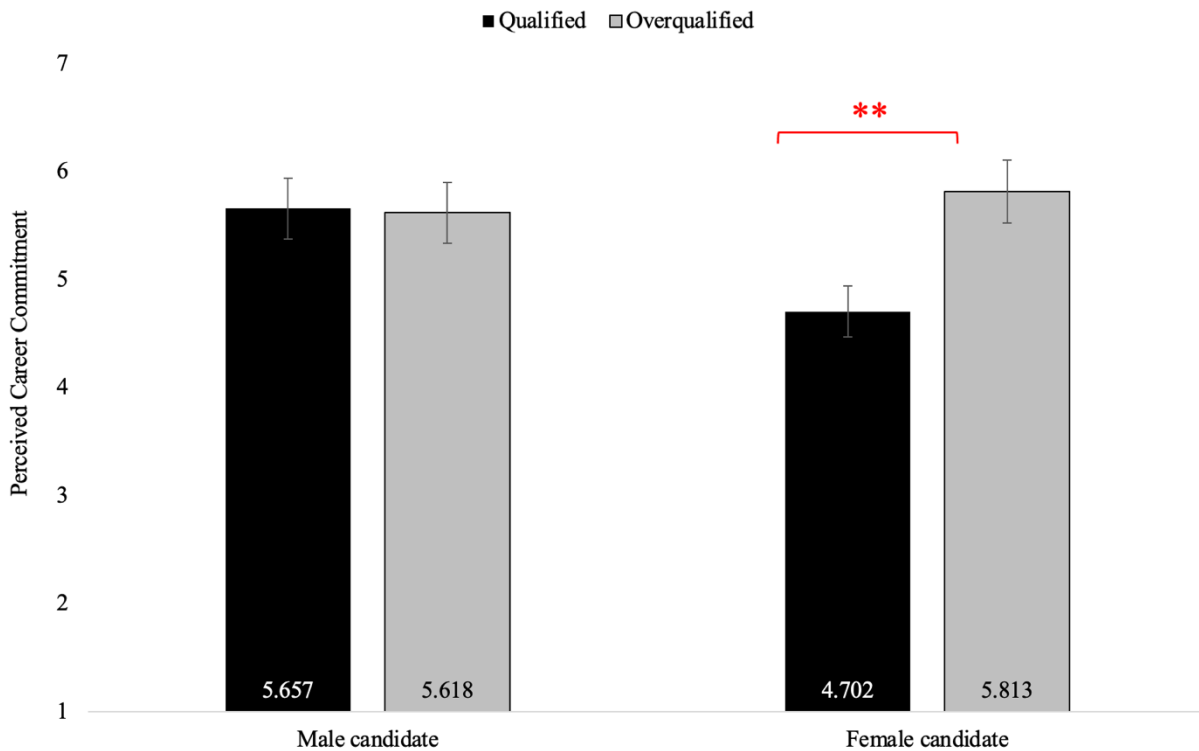
## FIGURES

**FIGURE 1.1** The effect of candidate gender and qualification level on *Offer* (Chapter 1, Study 1)

Note: Figure 1.1 shows the candidate gender  $\times$  qualification level two-way interaction on the likelihood the job candidate will receive an offer. The asterisks indicate the significance level of the Bonferroni-adjusted contrast test, which found that overqualified male candidates were less likely to receive job offers than qualified male candidates, but the opposite was true of female candidates.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

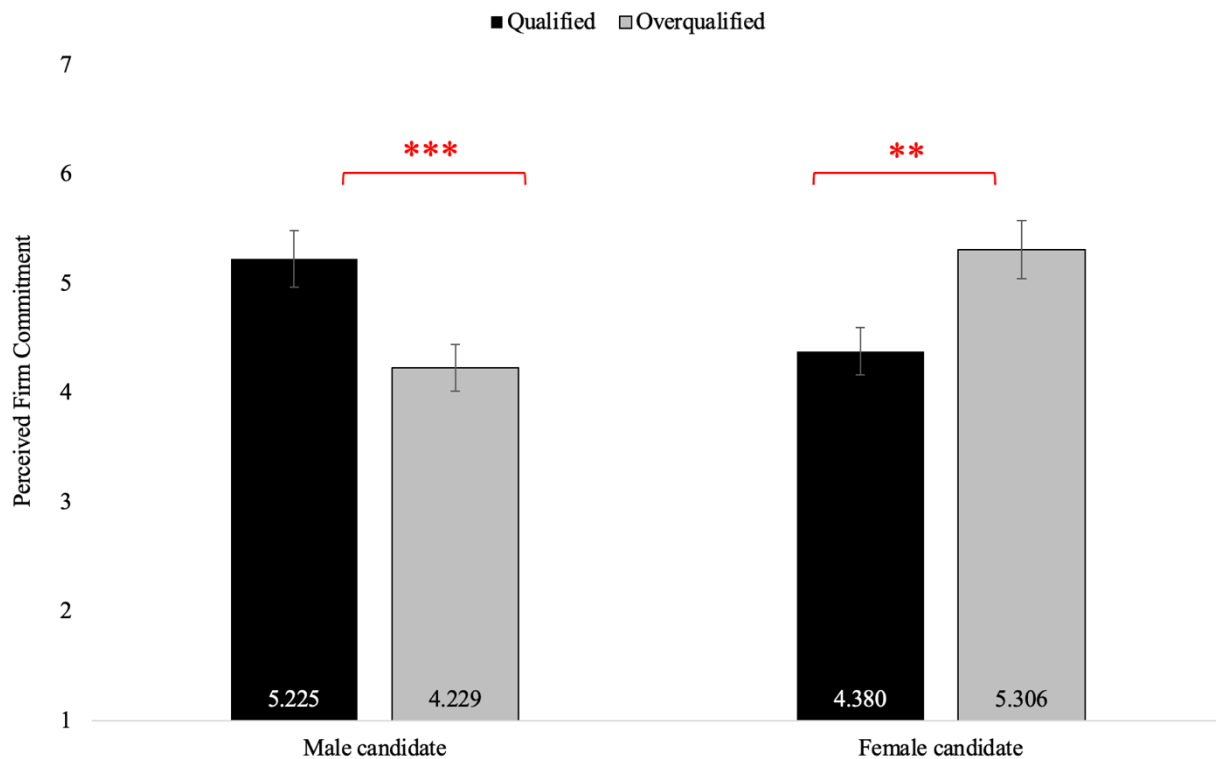
**FIGURE 1.2.** The effect of candidate gender and qualification level on *Perceived Career Commitment* (Chapter 1, Study 2)



Note: Figure 1.2 shows the candidate gender  $\times$  qualification level two-way interaction on perceptions of the candidate's career commitment. The asterisks indicate the significance level of a Bonferroni-adjusted contrast test, which found overqualified female candidates were perceived to be more committed to their careers than qualified female candidates.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

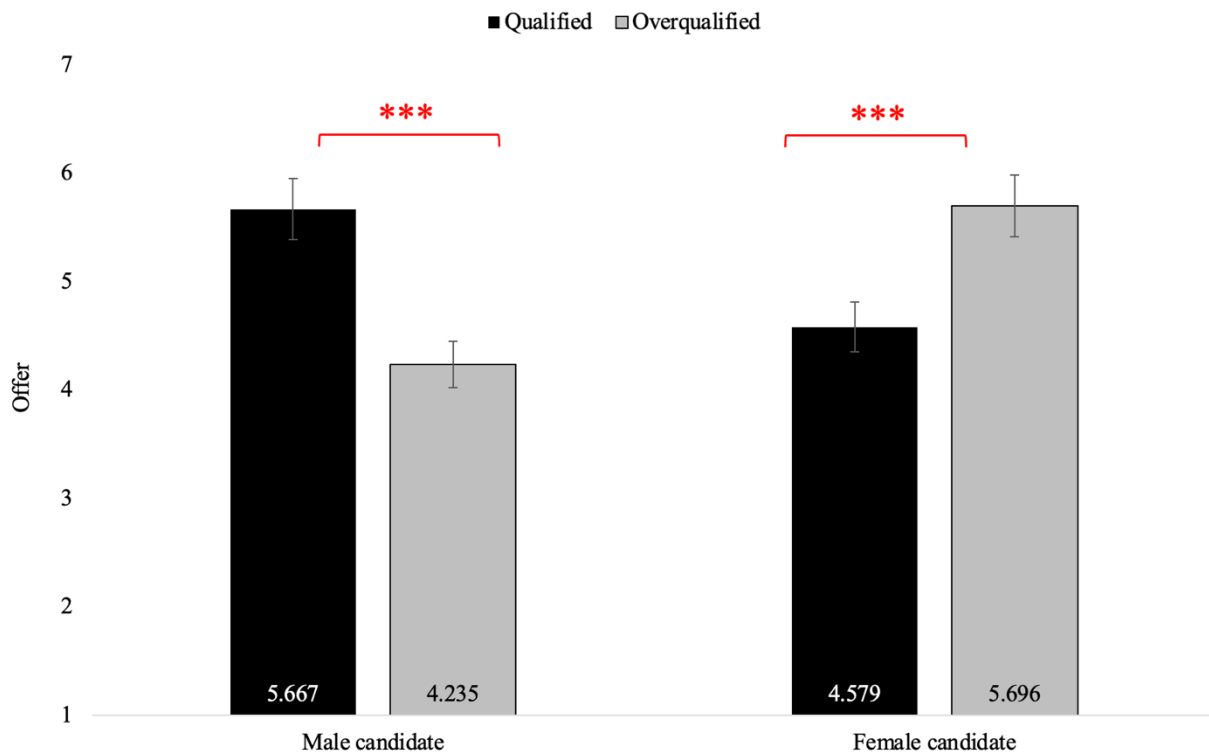
**FIGURE 1.3.** The effect of candidate gender and qualification level on *Perceived Firm Commitment* (Chapter 1, Study 2)



Note: Figure 1.3 shows the candidate gender  $\times$  qualification level two-way interaction of the candidate's commitment to the prospective firm. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which showed overqualified male candidates were perceived to be less committed to the prospective firm than qualified male candidates. But the opposite was true of female candidates.

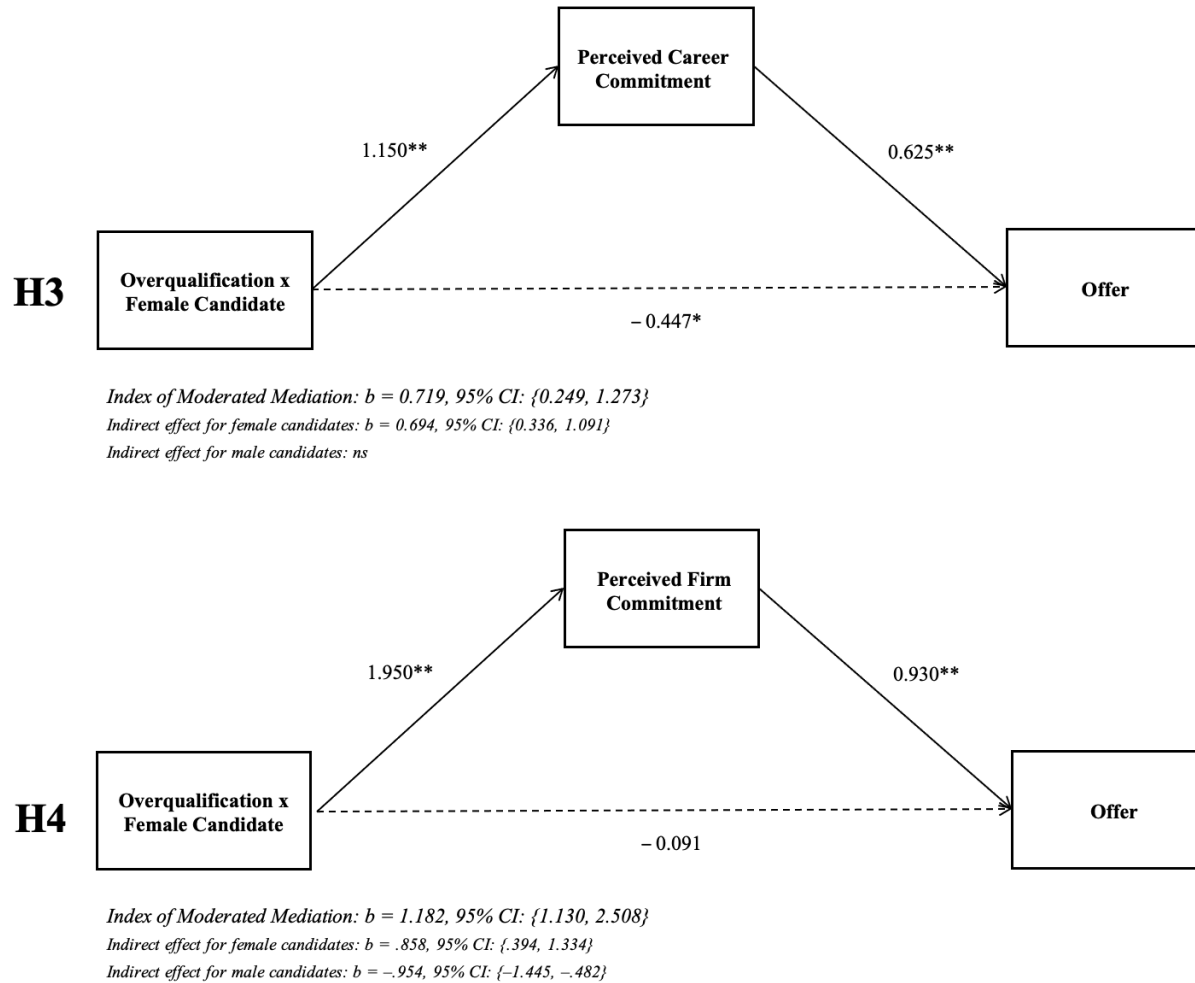
<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



**FIGURE 1.4.** The effect of candidate gender and qualification level on *Offer* (Chapter 1, Study 2)

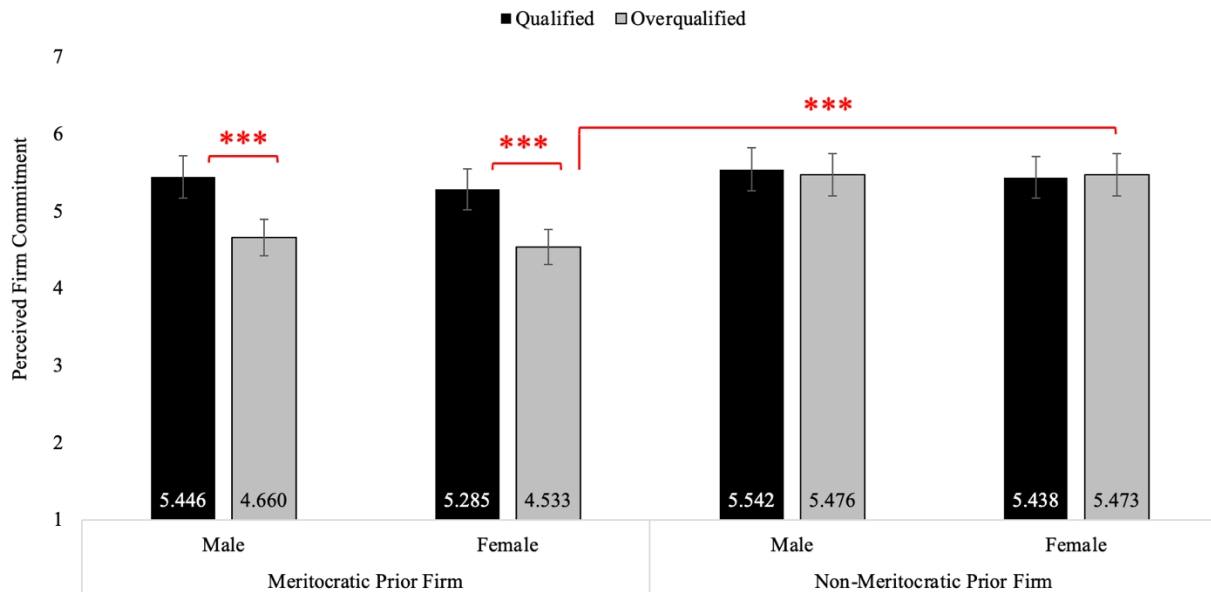
*Note: Figure 1.4 shows the candidate gender x qualification level two-way interaction on the likelihood the candidate will receive a job offer. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found that overqualified male candidates were less likely to receive job offers than qualified male candidates. But the opposite was true of female candidates.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE 1.5.** Moderated mediation models (Chapter 1, Study 2)

Note: Figure 1.5 shows the moderated mediation models conducted with the SPSS macro PROCESS in Study 2. The models show how perceptions of the job candidate's firm and career commitment explain the interactive effects of candidate gender and qualification level on likelihood to receive a job offer.

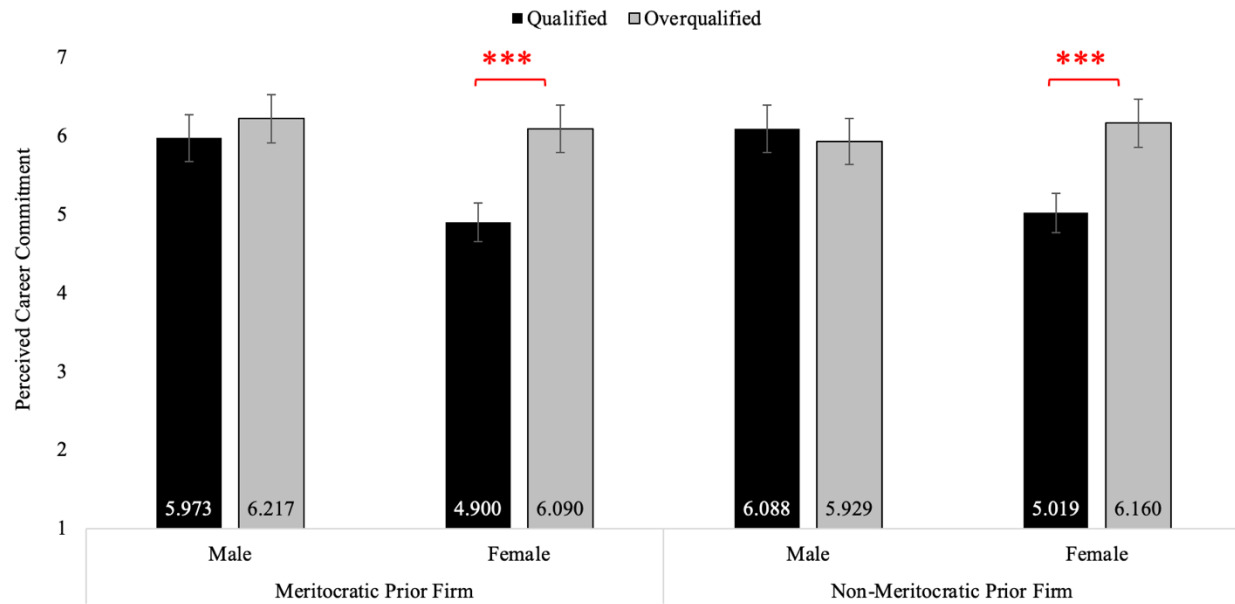
<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE 1.6.** The effect of candidate gender, qualification level, and prior firm meritocracy on *Perceived Firm Commitment* (Chapter 1, Study 3)

Note: Figure 1.6 shows the effects of candidate gender, qualification level, and prior firm meritocracy on perceptions of commitment to the prospective firm. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found that overqualified male and female candidates were perceived to be less committed to the firm compared to qualified male and female candidates, but only when leaving meritocratic prior firms. Overqualified female candidates leaving non-meritocratic firms were perceived to be more committed to the prospective firm than overqualified female candidates leaving meritocratic prior firms.

† $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

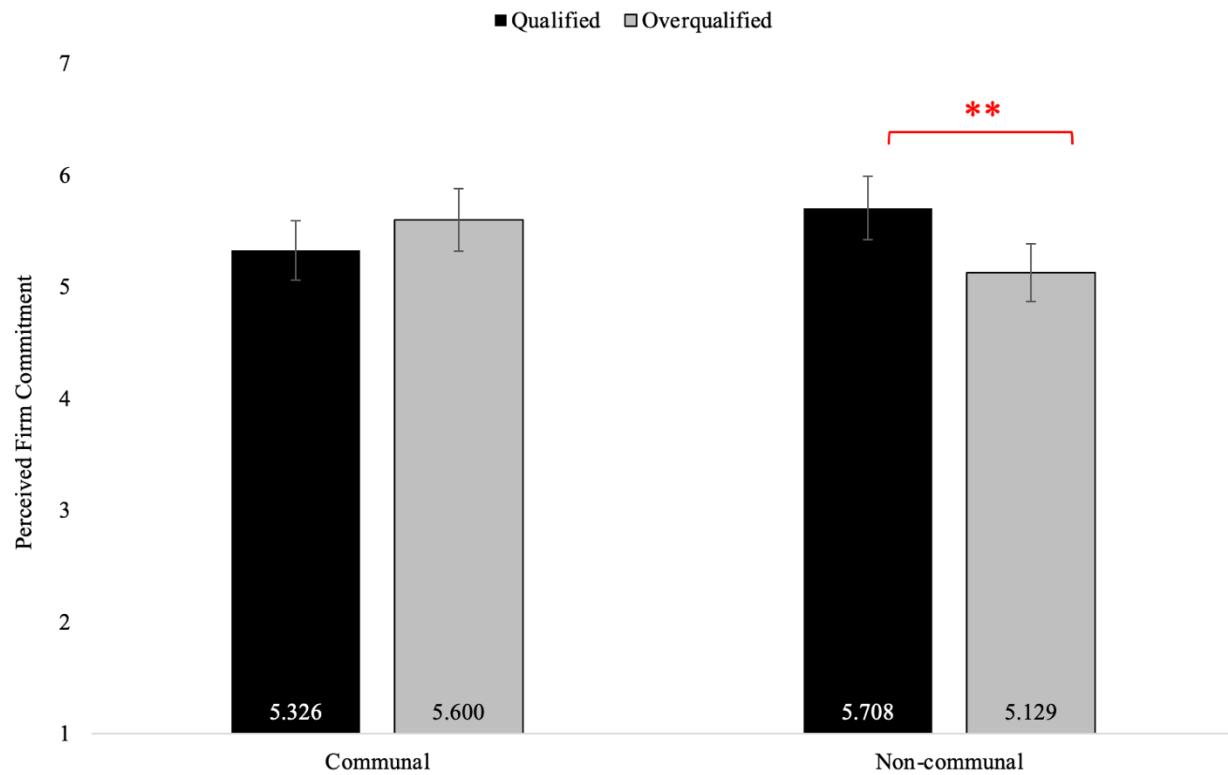
**FIGURE 1.7.** The effect of candidate gender, qualification level, and prior firm meritocracy on *Perceived Career Commitment* (Chapter 1, Study 3)



Note: Figure 1.7 shows the effects of candidate gender, qualification level, and prior firm meritocracy on perceptions of career commitment. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found overqualified female candidates were perceived to be more committed to their careers compared to qualified female candidates when leaving meritocratic and non-meritocratic firms.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

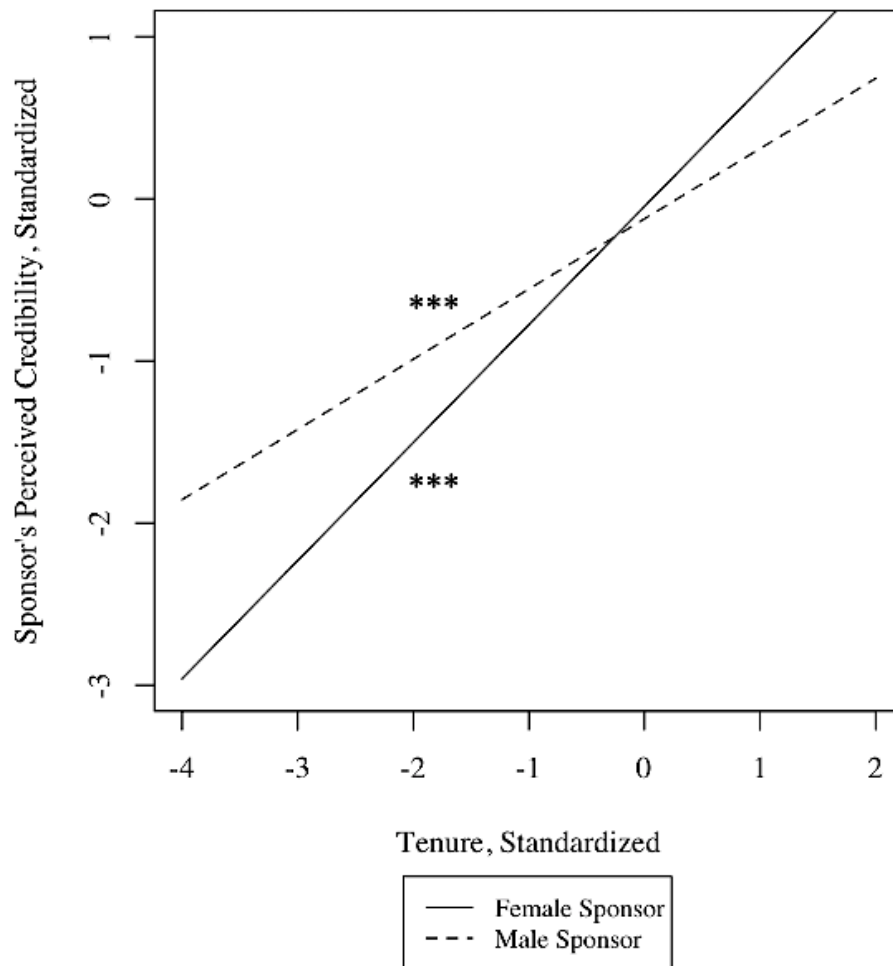
**FIGURE 1.8.** The effect of candidate gender and communality on *Perceived Firm Commitment* (Chapter 1, Study 4)



Note: Figure 1.8 shows the candidate qualification level  $\times$  communality two-way interaction on perceptions of commitment to the prospective firm. The asterisks indicate the significance level of a Bonferroni-adjusted contrast test, which showed the overqualified penalty persisted for non-communal candidates.

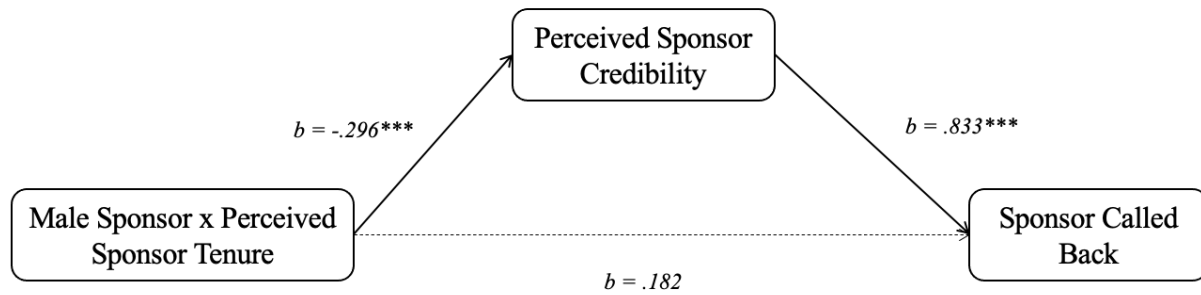
<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE 2.1.** Plot of *Male Sponsor* x *Perceived Sponsor Tenure* two-way interaction on *Perceived Sponsor Credibility* (Chapter 2, Study 1)



Note: Figure 2.1 plots the two-way interaction of sponsor gender and the sponsor's perceived tenure on ratings of the sponsor's perceived credibility (see Model 2 in Table 2 for details). Simple slopes were estimated with a linear probability model and represent the effect of Perceived Sponsor Tenure on Perceived Sponsor Credibility for male sponsors only and for female sponsors only. Simple slopes remained significant after inclusion of Perceived Candidate Quality. Details of simple slopes presented in Table 2.3.

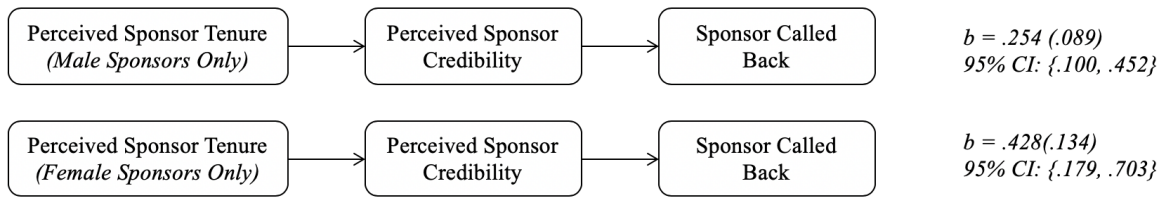
<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE 2.2** Moderated mediation model (Chapter 2, Study 1)

*Index of Moderated Mediation:  $b = -.246$  (.094), 95% CI:  $\{-.450, -.082\}$*

*Note: Figure 2.2 displays results from a moderated mediation model using Preacher and Hayes' process of estimating confidence intervals with 5,000 bootstrapped samples in the program PROCESS. The moderated mediation model was estimated with Male Sponsor as the main predictor, Perceived Sponsor Credibility as the mediator, and Called Back was included as the outcome variable. The first path was moderated by Perceived Sponsor Tenure. Male Candidate was included as a covariate. Details on the countervailing indirect effects documented in the moderated mediation model are reported in Table 2.5. This model facilitated comparisons across sponsor genders, but within different levels of the sponsor's perceived tenure. This allowed us to test the prediction that while male sponsors are advantaged at lower levels of perceived tenure compared to female sponsors, this reverses at high levels of perceived tenure. See Figure 2.3 for evidence of within sponsor gender differences.*

*<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$*

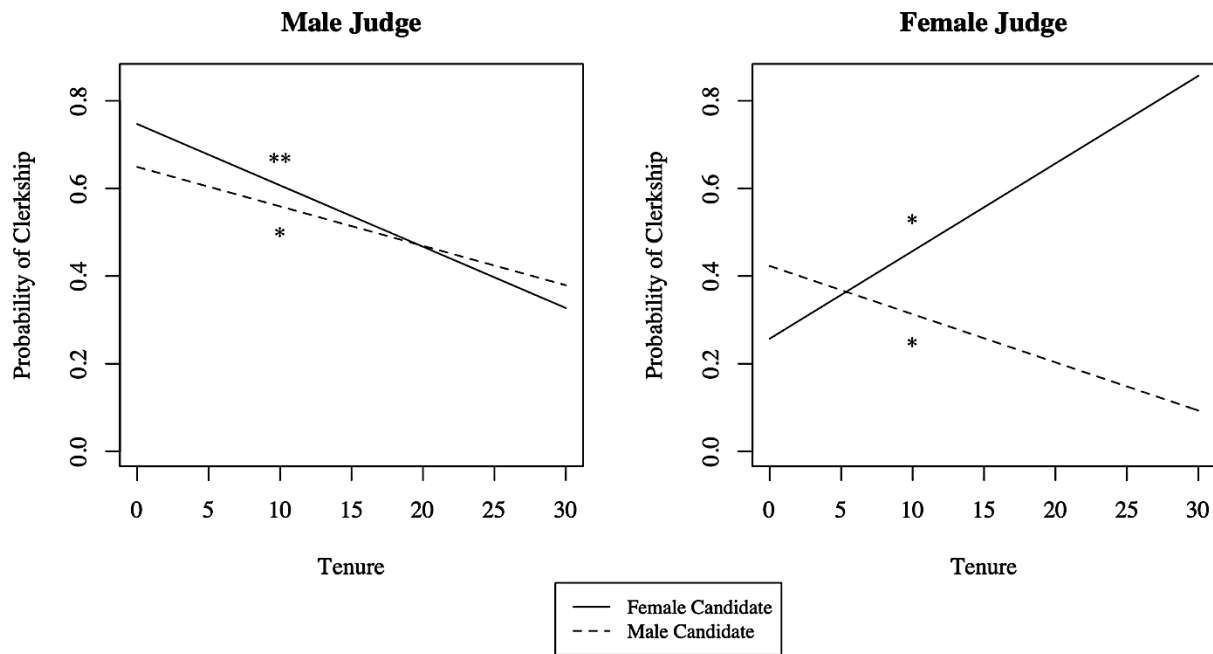
**FIGURE 2.3.** Moderated mediation model by sponsor gender (Chapter 2, Study 1)

*Note: Figure 2.3 displays results from a moderated mediation model using Preacher and Hayes' process of estimating confidence intervals with 5,000 bootstrapped samples in the program PROCESS. The moderated mediation model was estimated with Perceived Sponsor Tenure as the main predictor, Perceived Sponsor Credibility as the mediator, and Called Back was included as the outcome variable. The first path was moderated by Male Sponsor and Male Candidate was included as a covariate. Since the moderator was dichotomous, the mediation model above has been split for clarity to allow the reader to examine the indirect effect for male sponsors only and for female sponsors only. This moderated mediation model facilitated within sponsor gender comparisons, while Figure 2.2 facilitated cross-gender comparisons within different levels of perceived sponsor tenure.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

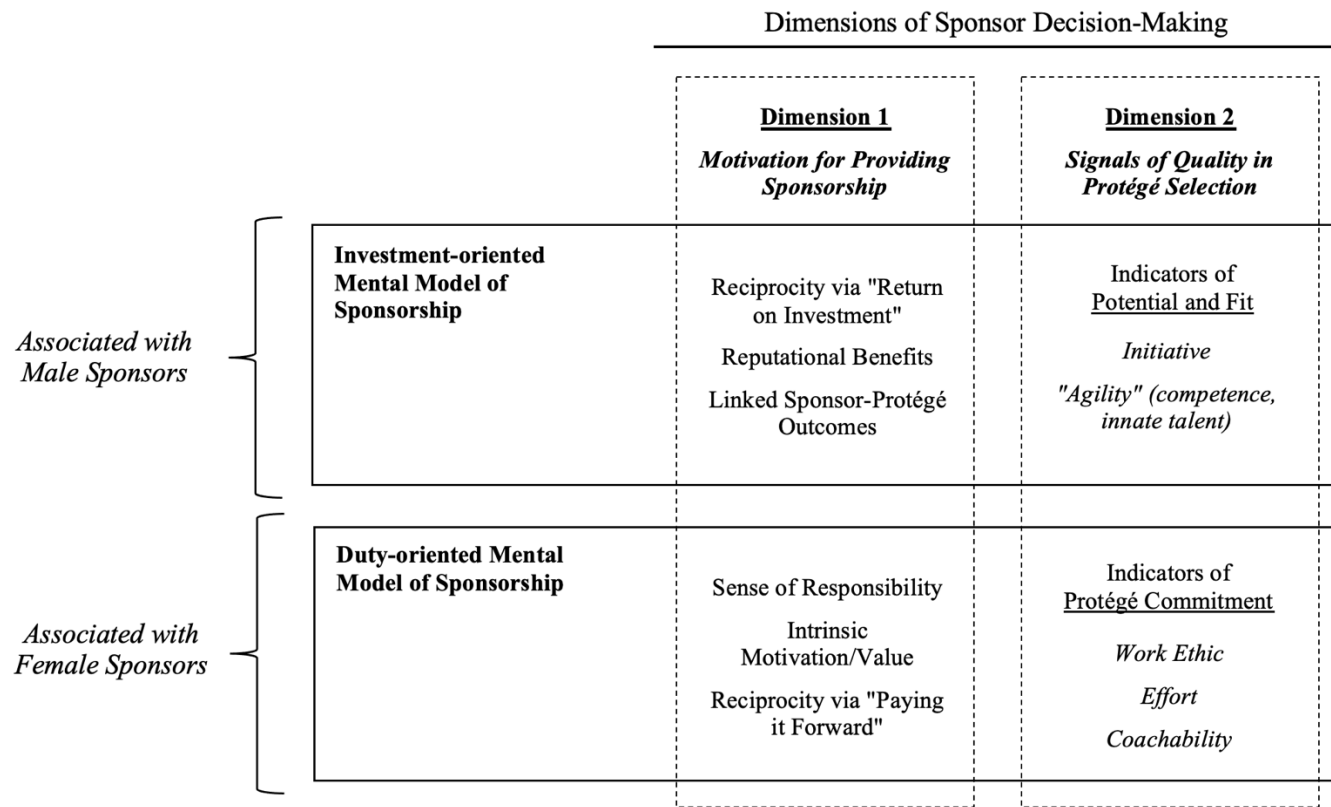


**FIGURE 2.4.** Plot of *Male Judge* x *Judge Tenure* x *Male Candidate* three-way interaction on *SCOTUS Clerk* (Chapter 2, Study 2)

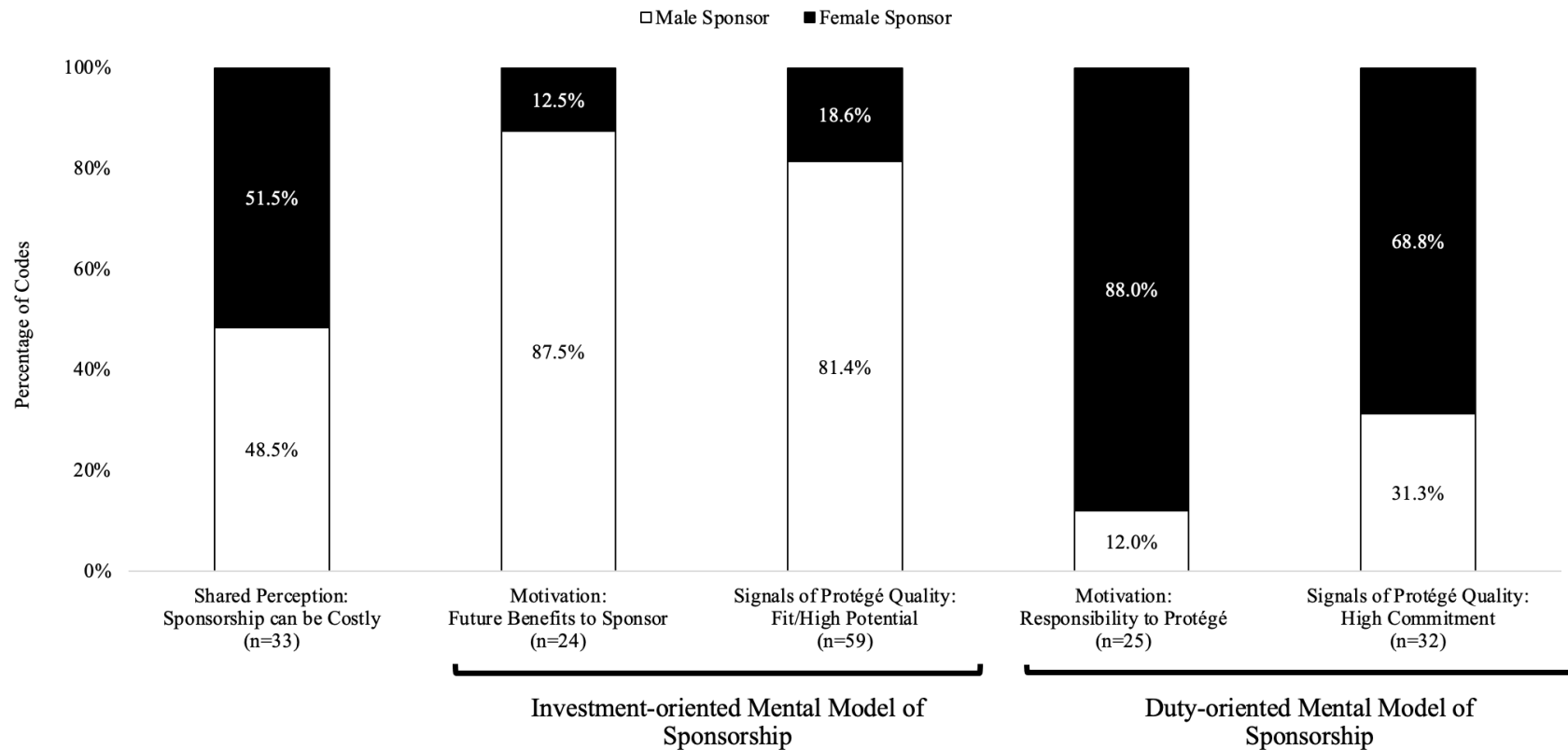


*Note: Figure 2.4 plots three-way interaction of D.C. Circuit judge gender, D.C. Circuit judge tenure, and candidate gender on the probability of the candidate successfully securing a SCOTUS clerkship. Simple slopes were estimated using a linear probability model with two-way clustered robust standard errors by D.C. Circuit judge and year. Model included all interaction terms, but no covariates (see Model 2 in Table 2.8 for details). All results are consistent with a logit framework. Details of simple slopes are reported in Table 2.9.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE 3.1.** Conceptual model of gender differences in mental models of sponsorship

Note: Figure 3.1 represents the conceptual model of mental models of sponsorship that emerged from inductive qualitative analysis. The vertical boxes, which are labeled as dimensions of decision-making, are representative of two major organizing principles that emerged as important to sponsor decision-making, including the sponsor's motivation for providing sponsorship and signals of high-quality protégés. Themes included in these vertical boxes represent the lower-order codes that are represented by these categories. The horizontal boxes represent which codes and themes correspond to which mental model, cutting across motivations to provide sponsorship and signals of high-quality protégé. A note on the righthand side indicates that the "sponsorship as an investment" mental model was more commonly displayed by male sponsors, but the "sponsorship as a duty" mental model was more commonly displayed by female sponsors.

**FIGURE 3.2.** Percentage of codes by theme and gender ( $n = 173$  codes)

*Note: Figure 3.2 shows the share of codes associated with male versus female participants, within each major theme. See Figure 3.1 for details of what lower-order themes are included in motivations to provide sponsorship and signals of high-quality potential protégés. Please note that the relatively smaller sample size codes per category is due to the smaller sample sizes associated with qualitative research. It is not the goal of Figure 3.2 to draw conclusions about significant differences in number of codes per category or gender, but to illustrate the general pattern that emerged from the data in terms of which participants endorsed which themes.*

## TABLES

**TABLE 1.1.** Descriptive statistics and correlation matrix (Chapter 1, Studies 1-4)

<i>Study 1</i>								
	Mean	SD	1	2	3			
1. Female Candidate	0.503	0.501						
2. Overqualified Candidate	0.493	0.501	0.027					
3. Competence (standardized)	0.000	0.840	0.020	0.164**				
4. Offer	5.781	1.008	0.129*	-0.018	0.287***			
<i>Study 2</i>								
	Mean	SD	1	2	3	4	5	
1. Female Candidate	0.526	0.501						
2. Overqualified Candidate	0.498	0.501	-0.004					
3. Perceived Firm Commitment	4.792	1.397	0.034	-0.001				
4. Perceived Career Commitment	5.435	1.407	-0.137*	0.202**	0.516***			
5. Competence (standardized)	0.005	0.812	0.090	0.411***	0.259***	0.506***		
6. Offer	5.047	1.608	0.057	0.029	0.808***	0.519***	0.258***	
<i>Study 3</i>								
	Mean	SD	1	2	3	4	5	6
1. Female Candidate	0.491	0.501						
2. Overqualified Candidate	0.493	0.501	-0.024					
3. Meritocratic Prior Firm	0.507	0.501	0.005	-0.028				
4. Perceived Firm Commitment	5.236	0.996	-0.049	0.192***	-0.244***			
5. Perceived Career Commitment	5.791	1.053	-0.250***	0.286***	-0.006	0.369***		
6. Competence (standardized)	0.000	1.000	0.025	0.517***	0.042	0.175***	0.553***	
7. Offer	5.047	1.579	-0.147**	0.060	-0.097*	0.520***	0.572***	0.450***
<i>Study 4</i>								
	Mean	SD	1	2	3	4	5	
1. Female Candidate	0.499	0.501						
2. Overqualified Candidate	0.506	0.501	0.026					
3. Communal Candidate	0.515	0.500	-0.021	0.181***				
4. Competence (standardized)	0.000	0.785	-0.012	0.018	-0.028			
5. Perceived Firm Commitment	5.480	1.272	0.017	-0.053	0.008	0.569***		
6. Offer	5.546	1.368	0.008	-0.067	-0.067	0.500***	0.704***	

† $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 1.2.** Coding for open-ended responses by candidate gender and qualification level (Chapter 1, Study 2)

<i>Q1: Rationale for evaluation of candidate</i>		Commitment/Fit	Qualifications/Skills	Other	Total
Qualified Candidate	Male Candidate	13	23	10	46
	Female Candidate	10	22	12	44
	Total	23	45	22	90
Overqualified Candidate	Male Candidate	14	23	8	45
	Female Candidate	11	26	10	47
	Total	25	49	18	92
Total		48	94	40	182
<i>Q2: Inferences for reasons for changing firms</i>		Advancement/Opportunities	Desire for Change	Other	Total
Qualified Candidate	Male Candidate	35	0	12	47
	Female Candidate	22	19	11	52
	Total	57	19	23	99
Overqualified Candidate	Male Candidate	28	7	12	47
	Female Candidate	26	9	13	48
	Total	54	16	25	95
Total		111	35	48	194

*Note: Table 1.2 indicates how many participant responses were categorized into themes for both open-ended questions. A detailed discussion of how the themes were generated is reported in Chapter 1. Sample sizes of responses vary across the two open-ended questions because responding was optional. While the majority of participants responded to both questions, some responded to only one or neither one.*

**TABLE 1.3.** Results of ANOVA models in *Perceived Firm Commitment* and *Perceived Career Commitment* (Chapter 1, Studies 3-4)

Study 3: Results of 2 (candidate gender) x 2 (candidate qualification level) x 2 (prior firm meritocracy condition) ANOVA on <i>Perceived Firm Commitment</i> and <i>Perceived Career Commitment</i>		
	Perceived Firm Commitment (F-Stat)	Perceived Career Commitment (F-Stat)
Female Candidate	1.19	31.12***
Overqualified Candidate	18.64***	43.70***
Meritocratic Prior Firm	30.46***	0.00
Female Candidate x Overqualified Candidate	0.14	37.83***
Female Candidate x Meritocratic Prior Firm	0.25	0.99
Overqualified Candidate x Meritocratic Prior Firm	17.20***	1.54
Female Candidate x Overqualified Candidate x Meritocratic Prior Firm	0.03	0.94
Constant	9.51***	16.71***
Residual Degrees of Freedom	414	415
Observations	421	422
Study 4: Results of 2 (candidate gender) x 2 (candidate qualification level) x 2 (candidate communality) ANOVA on <i>Perceived Firm Commitment</i>		
	Perceived Firm Commitment (F-Stat)	
Female Candidate	0.00	
Overqualified Candidate	1.29	
Communal Candidate	0.08	
Female Candidate x Overqualified Candidate	0.95	
Female Candidate x Communal Candidate	3.21	
Overqualified Candidate x Communal Candidate	12.24***	
Female Candidate x Overqualified Candidate x Communal Candidate	1.91 <sup>†</sup>	
Constant	2.68**	
Residual Degrees of Freedom	415	
Observations	422	

Note: Table 1.3 includes the comprehensive results from ANOVAs run in Studies 3 and 4.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.1.** Descriptive statistics and correlation matrix (Chapter 2, Study 1)

	Mean	SD	1	2	3	4	5
1. Male Sponsor	.501	.501					
2. Male Candidate	.494	.501	-.007				
3. Perceived Sponsor Tenure (standardized)	.000	.836	.002	-.066			
4. Perceived Sponsor Credibility (standardized)	.000	.886	.044	-.034	.551***		
5. Perceived Candidate Quality (standardized)	.000	.807	-.008	-.081	.304***	.404***	
6. Called Back	.817	.387	.051	-.053	.276***	.301***	.287***

*Note: Please see Appendix B for additional descriptive statistics, including Table B13 for descriptive statistics of the unstandardized variables and Table B14 for descriptive statistics of variables per condition.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.2.** OLS models on perceptions of the sponsor's credibility (Chapter 2, Study 1)

	(1)	(2)	(3)	(4)
Male Sponsor	.076 (.072)	.076 (.071)	.080 (.067)	.075 (.095)
Perceived Sponsor Tenure	.584*** (.043)	.728*** (.059)	.659*** (.057)	.642*** (.122)
Male Candidate	.005 (.072)	.020 (.071)	.052 (.039)	.048 (.091)
Male Sponsor x Perceived Sponsor Tenure		-.295*** (.085)	-.331*** (.081)	-.295* (.122)
Male Candidate x Perceived Sponsor Tenure				.027 (.117)
Male Sponsor x Male Protégé				.007 (.136)
Male Sponsor x Perceived Sponsor Tenure x Male Candidate				-.065 (.165)
Perceived Candidate Quality			.265*** (.044)	.264*** (.039)
Constant	-.041 (.062)	-.048 (.061)	-1.109*** (.167)	-1.100*** (.172)
Adjusted R <sup>2</sup>	.300	.318	.384	.391
AIC	960.215	950.209	907.962	913.798
ll(model)	-476.108	-470.104	-447.981	-447.899
Observations	427	427	427	427

*Note: Table 2.2 reports results of OLS models on the composite variable measuring the sponsor's perceived credibility. Standard errors in parentheses.*

<sup>†</sup>*p*<.10 \**p*<.05, \*\**p*<.01, \*\*\**p*<.001



**TABLE 2.3.** Simple slopes of *Male Sponsor* x *Perceived Sponsor Tenure* two-way interaction on the sponsor's perceived credibility (Chapter 2, Study 1)

	Dy/Dx	95% CI
Female Sponsor	.728*** (.059)	.611, .845
Male Sponsor	.433*** (.061)	.313, .553

*Note: Table 2.3 reports simple slopes for the two-way interaction of the sponsor's gender and perceived tenure on the sponsor's perceived credibility. Simple slopes were estimated from an OLS model (see Model 2 in Table 2.2) and represent the effect of Perceived Sponsor Tenure on the sponsor's probability of being called back and the candidate hired, averaged across male and female candidates. Simple slopes did not change with the inclusion of other variables in the model (see Models 2-3 in Table 2). Standard errors in parentheses. See Figure 2.1 for a plot of this interaction.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.4.** Linear probability models on if the sponsor was called back (Chapter 2, Study 1)

	(1)	(2)	(3)	(4)	(5)	(6)
Male Sponsor	.038 (.036)	.038 (.036)	.031 (.035)	.040 (.035)	.034 (.035)	.035 (.049)
Perceived Sponsor Tenure	.127*** (.022)	.126*** (.030)	.057 <sup>†</sup> (.034)	.101*** (.030)	.058 <sup>†</sup> (.034)	.015 (.069)
Male Candidate	-.027 (.036)	-.027 (.036)	-.029 (.044)	-.016 (.035)	-.019 (.035)	-.015 (.051)
Male Sponsor x Perceived Sponsor Tenure		.001 (.045)	.029 (.044)	-.012 (.044)	.010 (.044)	.066 (.069)
Male Candidate x Perceived Sponsor Tenure						.072 (.062)
Male Sponsor x Male Candidate						-.009 (.070)
Male Sponsor x Perceived Sponsor Tenure x Male Candidate						-.098 (.083)
Perceived Sponsor Credibility			.095*** (.025)		.067* (.027)	.066* (.027)
Perceived Candidate Quality				.094*** (.024)	.077*** (.025)	.074** (.025)
Constant	.811*** (.032)	.811*** (.031)	.815*** (.032)	.434*** (.104)	.507*** (.108)	.518*** (.113)
Adjusted R <sup>2</sup>	.080	.071	.101	.114	.126	.141
AIC	372.129	374.129	361.033	355.165	350.221	354.584
ll(model)	-182.065	-182.064	-174.517	-171.582	-168.111	-167.292
Observations	426	426	426	426	426	426

*Note: Table 2.4 reports results for linear probability models on if the sponsor was called back and the candidate hired (results consistent in a logit framework, see appendix for details). Robust standard errors in parentheses.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.5.** Indirect effects for moderated mediation model (Chapter 2, Study 1)

Values of Moderator (Perceived Sponsor Tenure, Standardized)	Effect	95% CI
Below average ( $-1$ SD below Mean = $-.924$ )	.290* (.121)	.072, .538
Average ( $m = -.026$ )	.069 (.063)	-.050, .199
Above average ( $+1$ SD above Mean = $.875$ )	-.153* (.083)	-.337, -.004

*Note:* Table 2.5 reports the indirect effects for the moderated mediation model using Preacher and Hayes' (2004, 2007) process of estimating confidence intervals with 5,000 bootstrapped samples in the program PROCESS. The moderated mediation model was estimated with Male Sponsor as the main predictor, Perceived Sponsor Credibility as the mediator, and Called Back was included as the outcome variable. The first path was moderated by Perceived Sponsor Tenure. Male Candidate was included as a covariate. The table shows the indirect effect of Male Sponsor on Called Back via Perceived Sponsor Credibility when the sponsor's perceived tenure is at 3 different levels: below average (value is 1 standard deviation below the mean), average (value is at the mean), and above average (value is 1 standard deviation above the mean). Standard errors in parentheses. See Figure 2.2 for a visualization of this moderated mediation model.

\*95% CI does not include zero.

**TABLE 2.6.** Distribution of characteristics for D.C. Circuit Judges and sample sizes by cell (Chapter 2, Study 2)

Descriptive Characteristics of D.C. Circuit Judges			
Male			64.7%
Graduated from Top-5 law school			76.47%
Male judges only			72.73%
Female judges only			83.33%
Nominated by Republican-controlled White House			58.82%
Male judges only			72.75%
Female judges only			33.33%
Sample size of D.C. Circuit Judges and candidates by gender			
	Male Candidate	Female Candidate	Total
Male D.C. Circuit Judges	357	161	518
Female D.C. Circuit Judges	109	42	151
Total	466	203	669

*Note: Table 2.6 reports descriptive statistics of the sample. Data set includes multiple observations of candidates from 17 D.C. Circuit judges, across multiple years (1995-2015). Additional descriptive statistics of the sample of candidates are included in the appendix.*

**TABLE 2.7.** Descriptive statistics and correlation matrix (Chapter 2, Study 2)

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Male Candidate	.697	.460											
2. Male Judge	.774	.418	-.057										
3. Judge Tenure	12.662	7.965	.115**	.180***									
4. Judge Senior Status	.143	.351	.109**	.233***	.574***								
5. Judge Republican Nominee	.622	.485	.226***	.049	.399***	.308***							
6. Judge Top-5 Grad	.704	.457	-.036	-.195***	-.040	-.021	-.039						
7. Judge Clerk Tally	8.393	8.370	-.143***	.416***	.373***	.195***	-.181***	.135***					
8. Candidate Top-5 Grad	.553	.498	-.028	.205***	-.195***	-.017	-.310***	.111**	.197***				
9. Candidate Editor	.502	.500	.125***	.029	-.020	-.026	-.037	.035	.002	.155***			
10. Judge-Candidate Edu Match	.161	.368	-.014	.004	-.040	.096*	-.032	.104**	.101**	.268***	.111**		
11. SCOTUS Clerk	.286	.452	-.058	.215***	-.096*	-.127***	-.108**	.113**	.253***	.222***	.120**	.038	
12. Judge-Justice Educ Match	.060	.237	-.053	.136***	-.034	.041	-.037	.164***	.204***	.176***	-.001	.164***	.399***

†  $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.8.** Linear probability model on the candidate successfully advancing to SCOTUS clerkship in full sample (M1-M5) and matched sample (M6-M10) (Chapter 2, Study 2)

	Analyses on full sample (M1-M5)					Analyses on CEM sample (M6-M10)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Male Judge	.227*** (.041)	.490*** (.109)	.291* (.117)	.264* (.105)	.286** (.108)	.249*** (.055)	.496** (.156)	.382* (.162)	.296* (.141)	.297* (.142)
Judge Tenure	-.009*** (.003)	.020* (.010)	.014 (.011)	.020† (.011)	.021† (.010)	.003 (.003)	.018* (.009)	.015 (.011)	.020† (.011)	.018† (.010)
Male Candidate	-.057 (.042)	.166† (.098)	.084 (.119)	.154 (.116)	.158 (.115)	-.100 (.063)	.157† (.094)	.115 (.121)	.182 (.120)	.161 (.118)
Male Judge x Judge Tenure		-.034** (.011)	-.029* (.013)	-.029* (.012)	-.031** (.012)		-.028† (.015)	-.038* (.016)	-.036* (.014)	-.034** (.013)
Male Candidate x Male Judge		-.264† (.138)	-.163† (.148)	-.184 (.143)	-.201 (.145)		-.331† (.193)	-.269 (.193)	-.234 (.179)	-.234 (.176)
Male Candidate x Judge Tenure		-.031* (.011)	-.025 (.013)	-.032* (.013)	-.033** (.012)		-.028** (.010)	-.028* (.012)	-.033** (.012)	-.032** (.011)
Male Candidate x Male Judge x Judge Tenure		.036** (.012)	.031* (.014)	.035* (.014)	.037** (.013)		.036* (.017)	.044* (.018)	.045** (.017)	.043** (.016)
Judge Senior Status			-.106 (.073)	-.156* (.066)	-.147* (.065)			-.179 (.180)	-.210 (.178)	-.216 (.186)
Judge Top-5 Grad			.085† (.045)	.056 (.043)	.059 (.043)			.102 (.090)	.059 (.083)	.075 (.084)
Judge Republican Nominee			.050 (.054)	.030 (.048)	.020 (.049)			.043 (.065)	-.001 (.058)	-.005 (.061)
Judge Clerk Tally			.017** (.004)	.012** (.004)	.012** (.004)			.017** (.006)	.015** (.005)	.015** (.005)
Candidate Top-5 Grad			.037 (.038)	.027 (.037)				-.043 (.054)	-.075 (.055)	
Candidate Editor			.067† (.038)	.070† (.036)	.067† (.035)			.069 (.049)	.071 (.045)	.047 (.046)
Judge-Candidate Educ Match				-.065 (.044)	-.085 (.054)				-.037 (.068)	-.055 (.080)
Judge-Justice Educ Match				.580** (.053)	.583*** (.054)				.647*** (.082)	.614*** (.086)
Candidate Columbia Grad					.039 (.091)					.065 (.128)
Candidate Harvard Grad					.048 (.054)					-.032 (.089)
Candidate Stanford Grad					-.048					-.186†

	Analyses on full sample (M1-M5)					Analyses on CEM sample (M6-M10)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Candidate UChicago Grad					(.068)					(.108)
Candidate Yale Grad					.066 (.081)					-.151 (.104)
Year fixed effects	YES	YES	YES	YES	.021 (.052)	YES	YES	YES	YES	-.084 (.077)
Constant	.257*** (.604)	.048 (.070)	.097 (.100)	.057 (.092)	.055 (.091)	.208** (.067)	.019 (.069)	.087 (.120)	.096 (.112)	.119 (.110)
R <sup>2</sup> (within)	.070	.085	.164	.252	.255	.105	.255	.213	.306	.319
AIC	744.387	740.584	645.935	581.511	587.015	274.184	272.137	248.429	218.429	220.954
ll(model)	-368.194	-362.292	-308.967	-274.756	-273.508	-133.092	-192.068	-110.214	-110.069	-90.477
Observations	698	698	612	612	612	302	302	271	271	271

*Note: Table 2.8 reports results from linear probability models on if the candidate successfully secured a SCOTUS clerkship with two-way clustered robust standard errors by D.C. Circuit judge and year (results consistent in a logit framework, see appendix for details). Robust standard errors in parentheses. Models 1-5 are analyses conducted on the full data set and Models 6-10 are analyses conducted on the matched subsample that was created using a coarsened exact matching procedure.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE 2.9.** Simple slopes of *Male Judge* x *Judge Tenure* x *Male Clerk* three-way interaction the candidate successfully advancing to SCOTUS clerkship (Chapter 2, Study 2)

	Dy/Dx	95% CI
Simple slopes (Model 2)		
Female Judge, Female Clerk	.020* (.010)	.001, .039
Female Judge, Male Clerk	-.011** (.004)	-.020, -.003
Male Judge, Female Clerk	-.014** (.005)	-.023, -.005
Male Judge, Male Clerk	-.010** (.004)	-.017, -.002
Simple slopes after inclusion of covariates (Model 3)		
Female Judge, Female Clerk	.014 (.011)	-.008, .036
Female Judge, Male Clerk	-.011 <sup>†</sup> (.006)	-.022, .001
Male Judge, Female Clerk	-.015** (.005)	-.026, -.005
Male Judge, Male Clerk	-.009 <sup>†</sup> (.005)	-.019, .001

*Note:* Table 2.9 reports the decomposition of the three-way interaction of *Male Judge* x *Judge Tenure* x *Male Candidate* on the probability of the candidate securing a SCOTUS clerkship. The simple slopes represent the effect of *Judge Tenure* on the probability of the candidate securing a SCOTUS clerkship for each combination of judge and candidate genders (i.e., if *Male Judge* = 1 and *Male Candidate* = 1, and so forth). The simple slopes are reported for the three-way interaction before the inclusion of covariates (see Model 2 in Table 2.8) and after the inclusion of covariates (see Model 3 in Table 2.8) to illustrate the change in significance for some of the slopes. Results were consistent in logit framework. Standard errors in parentheses. See Figure 2.4 for a plot of this three-way interaction.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



**TABLE 3.1.** Sample of ConsultCo partners

<i>Summary statistics about participant firm tenure (years)</i>						
	Mean	Minimum	Maximum	N		
Male	11.5	2	27	19		
Female	13.9	1	26	13		
Overall	12.5	1	27	32		

ID	Gender	Position	Pseudonym	Firm Tenure (yrs)	Consulting Specialty	Firm Entry
1	Male	Partner	Derek	18	Private Equity	Hired by firm
2	Male	Partner	Caleb	6	Not Specified (General Consulting)	Hired by firm
3	Female	Partner	Dana	20	Strategy	Hired by firm
4	Male	Partner	Michael	4	Private Equity, Healthcare	Hired by firm
5	Female	Partner	Kate	15	Tech	Hired by firm
6	Female	Partner	Samantha	18	Forensic Accounting and Risk Management	Hired by firm
7	Female	Partner	Georgia	9	Assets & Wealth Management	Hired by firm
8	Male	Partner	Tyler	9	Risk Management	Hired by firm
9	Male	Partner	Keith	18	Operations, Power & Utilities	Hired by firm
10	Male	Partner	Kevin	6	Not Specified (General Consulting)	Hired by firm
11	Male	Partner	Jason	9	Tech	Hired by firm
12	Female	Partner	Josephine	27	Healthcare	Hired by firm
13	Male	Partner	Carter	7	Mergers & Acquisitions	Hired by firm
14	Female	Partner	Danielle	16	Assets & Wealth Management	Hired by firm
15	Female	Partner	Sophie	11	Not Specified (General Consulting)	Hired by firm
16	Male	Partner	Connor	10	Financial Services	Hired by firm
17	Female	Partner	Julie	11	Finance in Aerospace & Defense	Hired by firm
18	Male	Partner	Ben	13	Tech	Hired by firm
19	Male	Partner	Matthew	17	Private Equity	Hired by firm
20	Male	Partner	Ted	5	Oil & Gas	Hired by firm
21	Male	Partner	Cameron	25	Finance in Tech	Hired by firm
22	Male	Partner	Charlie	2	Operations	Hired by firm
23	Female	Partner	Diana	6	Strategy	Joined via acquisition
24	Male	Partner	Jack	10	Not Specified (General Consulting)	Joined via acquisition
25	Female	Partner	Melanie	1	Banking	Hired by firm
26	Female	Partner	Suzanne	11	Finance in Tech	Hired by firm
27	Male	Partner	Ethan	5	Mergers & Acquisitions	Hired by firm
28	Male	Partner	Brandon	26	Mergers & Acquisitions	Hired by firm
29	Female	Partner	Sarah	23	Finance	Hired by firm
30	Male	Partner	Max	20	Healthcare	Hired by firm
31	Male	Partner	Jacob	8	Private Equity, Healthcare	Joined via acquisition
32	Female	Partner	Emily	13	Operations	Hired by firm

*Note: Table 3.1 includes a comprehensive list of all equity partners that participated in the study and descriptive characteristics that were provided during interviews. All partners work in the same branch of ConsultCo (consulting and advisory services), which includes a range of consulting services. ConsultCo would not provide details on partners' professional background or specialties for confidentiality reasons. Table 3.1 instead includes self-described specialties shared by participants during interviews. A handful of participants did not disclose their specialty (indicated by "general consulting").*

## APPENDIX

### Appendix A: Supplement for Chapter 1

#### Pilot Study

A pilot study was conducted prior to Study 1. This pilot served as an initial test of our experimental paradigm, stimuli, and manipulations. Study 1 is a pre-registered replication of this pilot study (see Study 1 in the main manuscript for details). The key difference between Study 1 and the pilot study is the sample. The pilot was conducted on a sample of MBA students in the first year of their program, which was a smaller sample and one that was less experienced with making hiring decisions than the sample used in Study 1.

**Study design and sample.** We conducted a 2 (candidate gender) x 2 (candidate qualification level) between-subjects experiment using a sample of MBA students enrolled at a private university in the Midwestern region of the United States. We recruited participants from three sections of a core course that students complete in the first year of a MBA program at a private Midwestern university. The study was advertised as approximately 1 minute in duration and students were told the study was about perceptions of resumes and job candidates. Participants were offered extra course credit for their participation. Of the 203 students enrolled across 3 sections, 195 students completed the study (68.2% male, 43.1% White/Caucasian, age  $m=28.2$  years).<sup>73</sup>

**Experimental procedure and manipulations.** Upon consent, participants read the same instructions and role materials described in Study 1. The same manipulation of qualification level and candidate gender were also used here.

#### Measures.

**Attention checks.** Participants responded to the same attention check questions and followed the same procedure to reinforce important study information as is described in Study 1.

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<sup>73</sup> A survey item was included in the demographic questions to determine how much hiring experience participants had: “How much prior experience do you have evaluating and hiring job candidates?” (1=None, 5=A great deal). Descriptive analyses revealed that participants had some prior experience ( $m=2.487$ ,  $SD=1.199$ ). 51 participants indicated they had no prior experience (i.e., answered “1” on the scale). Results are the same if these participants are included in analyses or not.

**Offer.** The same item described in Study 1 was also used in the pilot study.

**Analyses and discussion.** Descriptive statistics are reported in Table A1. A 2 (gender) x 2 (qualification level) ANOVA on *Offer* showed results consistent with our theorizing: a significant gender x qualification level two-way interaction,  $F(1,191)=21.52, p<.001$  (see Figure A1). Bonferroni-adjusted contrast testing showed overqualified men ( $m=4.404, SD=1.796, n=52$ ) were less likely to receive a job offer than qualified men ( $m=5.736, SD=.923, n=53$ ) (contrast,  $p<.001$ ) (consistent with our theory). Overqualified women ( $m=5.220, SD=1.475, n=50$ ) and qualified women ( $m=4.600, SD=1.533, n=40$ ) were equally likely to receive a job offer (contrast,  $p>.15$ ), which is consistent with the notion of a non-penalty for women (also consistent with Quadlin, 2018). While not formally hypothesized, we also observed a marginally significant main effect of qualification level,  $F(1,191)=2.86, p=.096$ , such that overqualified candidates were less likely to receive a job offer ( $m=4.804, SD=1.689, n=102$ ) compared to qualified candidates ( $m=5.247, SD=1.340, n=93$ ). There was no significant main effect of gender ( $p=.448$ ). Thus, this pilot study provided initial evidence consistent with our theory and prior research (Galperin et al., 2019).

It should be noted that both in Study 1 and the Pilot Study, we observed a significant gender x qualification level two-way interaction on likelihood to receive a job offer with the same pattern of means. There was one key difference, however. Contrast testing in Study 1 showed a significant difference in job offer likelihood for overqualified women compared to qualified women, which is consistent with findings in Studies 2-3.<sup>74</sup> However in the pilot, the contrast between overqualified and qualified women was non-significant. It should be noted that the means for the overqualified and qualified female candidate conditions are showing the same pattern in Study 1 and the Pilot Study (i.e., overqualified female candidates are slightly more likely to receive job offers than qualified female candidates). We anticipate that we failed to document the significant contrast test showing the overqualification benefit for female candidates in the

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<sup>74</sup> We also observed a non-significant main effect of candidate gender in the Pilot Study but a significant main effect of candidate gender in Study 1. We did not focus our discussion on this since our main hypotheses focused on the higher order interactive effects.

Pilot Study because we used a sample that is less experienced with making hiring decisions. Indeed, Study 1 participants indicated they were more experienced hiring job candidates ( $m=3.983$ ) than Pilot Study participants ( $m=2.487$ ) (5-pt Likert scale). Our theory hinges on the sensitivity hiring managers have to various signals that are sent by job candidates and it is possible that individuals with less experience making hiring decisions are less sensitive to those signals.

### **Pre-Registered Replication of Study 2**

We conducted a pre-registered replication of Study 2.<sup>75</sup> This replication employed the same 2 (candidate gender) x 2 (candidate qualification level) between-subjects experimental design as Study 2. The key findings, including the interaction terms on perceived firm commitment, perceived career commitment, and likelihood to receive a job offer and moderated mediation analyses replicated, and mirror results reported in Study 2.

**Sample.** 291 U.S. citizens and members of Amazon Mechanical Turk were recruited using CloudResearch (58.76% male, 76.55% White/Caucasian, age  $m=38.81$  years) (Berinsky et al., 2012; Buhrmester et al., 2011; Litman et al., 2017).<sup>76</sup>

**Experimental procedure and manipulations.** This replication study used the same paradigm, procedure, and manipulations as Study 2.

#### **Measures.**

**Attention checks.** Participants responded to the same attention check questions and followed the same procedure to reinforce important study information as is described in Study 2.

**Qualification level manipulation check.** The same manipulation check items described in Study 2 were also used here. Standardized z-scores were averaged to create a composite representing the candidate's perceived competence ( $\alpha=.845$ ). Analyses showed that the qualification level manipulation was successful:

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<sup>75</sup> This replication study was pre-registered (#48581). Please see Appendix E for pre-registration documents.

<sup>76</sup> As with prior studies, a survey item was included to inquire about the participant's level of prior experience hiring and evaluating job candidates. Descriptive analyses showed that these participants were moderately experienced ( $m=3.856$ ,  $SD=.958$ ,  $n=291$ ). Five participants answered "1" to indicate they had no prior hiring experience. These participants are included in analyses because results did not differ with them excluded. Please also note one participant did not respond to all questions so some analyses include 290 instead of 291 participants.

a 2 (gender) x 2 (qualification level) ANOVA on *Perceived Competence* showed a significant main effect of qualification level,  $F(1,287)=13.96$ ,  $p<.001$ : overqualified candidates were perceived to be more competent ( $m=.194$ ,  $SD=.690$ ,  $n=147$ ) than qualified candidates ( $m=-.139$ ,  $SD=.830$ ,  $n=144$ ). A non-significant main effect of candidate gender ( $p=.115$ ) and interaction term ( $p=.105$ ) ensures that the qualification manipulation worked the same across gender conditions.

***Perceived firm commitment.*** The same items used to measure perceptions of firm commitment in Study 2 were also used here. A composite variable was created to represent the candidate's perceived commitment to the prospective firm ( $\alpha=.745$ ).

***Perceived career commitment.*** The same items used to measure perceptions of career commitment in Study 2 were also used here. A composite variable was created to represent the candidate's perceived commitment to his/her career ( $\alpha=.824$ ).

***Offer.*** The same item used to measure likelihood to receive a job offer described in Study 2 was also used here.

**Analyses.** Descriptive statistics are reported in Table A2. We conducted a series of ANOVAs to test for gender and qualification level differences in perceived career commitment, perceived firm commitment, and likelihood to receive a job offer. Mediation analyses were conducted to test if perceived commitment explained the relationship between gender, qualification level, and hiring outcomes.

***Perceived career commitment.*** A 2 (gender) x 2 (qualification level) ANOVA on *Perceived Career Commitment* was conducted (see Figure A2). Results showed a main effect of gender,  $F(1,287)=13.13$ ,  $p<.001$ : female candidates were perceived to be less committed to their careers compared to male candidates. However, a more direct test of our hypothesis was the significant gender x qualification level two-way interaction,  $F(1,287)=19.90$ ,  $p<.001$ . Bonferroni-adjusted contrast tests showed that overqualified women were perceived to be more committed to their careers ( $m=6.263$ ,  $SD=.810$ ,  $n=76$ ) compared to qualified women ( $m=5.257$ ,  $SD=1.094$ ,  $n=72$ ) (contrast,  $p<.001$ ). However, overqualified and qualified men were indistinguishable in terms of their perceived career commitment (contrast,  $p>.15$ ). While not formally hypothesized, we also observed a main effect of qualification level,  $F(1,287)=20.08$ ,  $p<.001$ , such

that overqualified candidates were viewed as more committed to their careers than qualified candidates. These findings support H1 and replicate Study 2 findings.

***Perceived firm commitment.*** A 2 (gender) x 2 (qualification level) ANOVA on *Perceived Firm Commitment* was conducted (see Figure A3). Consistent with H2, we observed a significant gender x qualification level two-way interaction,  $F(1,287)=11.44$ ,  $p<.001$ . Bonferroni-adjusted contrast testing showed that overqualified men were viewed as less committed to the prospective firm ( $m=5.033$ ,  $SD=1.481$ ,  $n=71$ ) compared to qualified men ( $m=5.458$ ,  $SD=.945$ ,  $n=72$ ) (contrast,  $p=.072$ ). However, overqualified and qualified women were viewed as similarly committed to the prospective firm (contrast,  $p=.150$ ), although the means were trending such that overqualified women were viewed as more committed to the firm ( $m=5.781$ ,  $SD=.717$ ,  $n=76$ ) than qualified women ( $m=5.407$ ,  $SD=.706$ ,  $n=72$ ). The combination of a penalty for male candidates and a lack of a penalty for female candidates is consistent with H2 and mirrors what was observed in Study 2. The exception is that the contrast between overqualified and qualified women was significant in Study 2 but is non-significant here. The means for overqualified and qualified female candidates are, however, trending in the anticipated direction and we do replicate the significant interaction term, which was our hypothesis.<sup>77</sup> This may have been due to the fact that we used a sample that did not include verified hiring managers, who could be less sensitive to the signals necessary to elicit the firm commitment boost documented in Study 2 (which did a sample of verified hiring managers). However, considering that the interaction term and pattern of means replicated, as well as the path analyses, we consider these findings to be a conceptual replication of Study 2.

***Offer.*** A 2 (gender) x 2 (qualification level) ANOVA on *Offer* was conducted (see Figure A4). Consistent with our predictions, we observed a significant gender x qualification level two-way interaction,  $F(1,287)=17.85$ ,  $p<.001$ . Bonferroni-adjusted contrast testing showed that overqualified men were less likely to receive a job offer ( $m=5.296$ ,  $SD=1.438$ ,  $n=71$ ) compared to qualified men ( $m=5.847$ ,  $SD=.914$ ,

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<sup>77</sup> While not formally hypothesized we also observed a non-significant main effect of qualification level ( $p=.825$ ) and a significant main effect of candidate gender,  $F(1,287)=8.71$ ,  $p=.003$ , showing female candidates were generally perceived as more committed to the prospective firm compared to male candidates. We did not document this main effect of gender in Study 2. However, we are less concerned with the main effects because our hypothesis was ultimately about the interaction.

$n=72$ ) (contrast,  $p=.017$ ). However, the opposite was true for female candidates: overqualified women were more likely to receive a job offer ( $m=6.197$ ,  $SD=.833$ ,  $n=76$ ) than qualified women ( $m=5.667$ ,  $SD=1.101$ ,  $n=72$ ) (contrast,  $p=.020$ ) and overqualified men (contrast,  $p<.001$ ). This is consistent with H3 and H4 and replicates findings from Study 2.<sup>78</sup>

**Mediation analyses.** We conducted two bootstrapped moderated mediation analyses using PROCESS to test H3 and H4 (Preacher et al., 2007; Preacher & Hayes, 2004). See Figure A5 for a summary of results. These results replicated those reported in Study 2.

**Career commitment.** We conducted a bootstrapped moderated mediation analyses to test H3. The model included *Overqualification* as the predictor, *Perceived Career Commitment* as the mediator, and *Offer* as the outcome variable (qualified candidates set as the reference category). The first path was moderated by *Female Candidate*. First, we observed that the Index of Moderated Mediation was significant ( $b=.534$ ,  $SE=.150$ , 95% CI:  $\{.277, .860\}$ ), indicating that the overall model was significant. Next, we interpreted the Table of Indirect Effects to better understand the nature of the *Overqualification* → *Perceived Career Commitment* → *Offer* mediation model for male versus female job candidates. Results showed a positive indirect effect of *Overqualification* on *Offer* via *Perceived Career Commitment* for female candidates ( $b=.535$ ,  $SE=.113$ , 95% CI:  $\{.323, .771\}$ ), indicating that overqualification level boosted female candidates' perceived career commitment and improved their likelihood of receiving a job offer. There was no indirect effect for male candidates (95% CI:  $\{-.183, .152\}$ ), indicating that perceptions of career commitment did not ultimately inform hiring decisions about male candidates. These results support H3 and replicate Study 2.

**Firm commitment.** We also conducted bootstrapped moderated mediation analyses to test H4. The model included *Overqualification* as the predictor, *Perceived Firm Commitment* as the mediator, and *Offer* as the outcome variable (qualified candidates set as the reference category). The first path was moderated

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<sup>78</sup> While not formally hypothesized, we also observed a significant main effect of candidate gender,  $F(1,287)=7.93$ ,  $p=.005$ , and a non-significant main effect of qualification level ( $p=.936$ ). The gender main effect showed female candidates were more likely to receive job offers than qualified candidates. Please note that in Study 2, we did not document this main effect. However, we are less concerned with the main effects because our hypothesis was about the interaction.



by *Female Candidate*. First, we observed that the Index of Moderated Mediation was significant ( $b=.577$ ,  $SE=.189$ , 95% CI:  $\{.225, .971\}$ ), indicating the overall model was significant. Next, we interpreted the Table of Indirect Effects to better understand the nature of *Overqualification*  $\rightarrow$  *Perceived Firm Commitment*  $\rightarrow$  *Offer* mediation model for male and female candidates. Results showed a negative indirect effect of *Overqualification* on *Offer* via *Perceived Firm Commitment* for male candidates ( $b= -.308$ ,  $SE=.160$ , 95% CI:  $\{-.641, -.013\}$ ), indicating This that overqualification led to lower levels of male candidates' perceived firm commitment and reduced likelihood of receiving a job offer (supports H4). We also observed a positive indirect effect for female candidates ( $b=.270$ ,  $SE=.086$ , 95% CI:  $\{.102, .441\}$ ), indicating that overqualification boosted perceptions of female candidates' firm commitment and likelihood of receiving a job offer. These results replicate Study 2.

### Supplemental Analyses for Study 3

**Measures.** Study 3 used the same outcome measure (*Offer*) that was used in Studies 1-2.

**Analyses.** A 2 (gender) x 2 (qualification level) x 2 (prior firm meritocracy) ANOVA on *Offer* was conducted. Due to the number of conditions, all results are reported in Table A3 and only significant effects of interest are reported here. We conducted a series of Bonferroni-adjusted contrast tests to conduct more direct tests of our hypotheses (see Figure A6). Overqualified male candidates were less likely to receive a job offer ( $m=4.679$ ,  $SD=1.541$ ,  $n=53$ ) than qualified men ( $m=5.804$ ,  $SD=1.102$ ,  $n=56$ ) when leaving meritocratic firms (contrast,  $p<.001$ ) but not non-meritocratic firms (contrast,  $p>.15$ ). Thus, male candidates experienced an overqualification penalty when leaving prior firms described as having meritocratic policies, but this penalty was eliminated when leaving non-meritocratic prior firms. This is suggestive evidence that male candidates are presumed to be receiving fair opportunities to their advancement.

Overqualified female candidates ( $m=5.840$ ,  $SD=1.235$ ,  $n=50$ ) were more likely to receive a job offer than qualified women ( $m=4.392$ ,  $SD=1.638$ ,  $n=51$ ) when leaving non-meritocratic firms (contrast,  $p<.001$ ) but there was no such difference when leaving meritocratic firms (contrast,  $p>.15$ ). Relatedly, overqualified female candidates leaving non-meritocratic prior firms were more likely to receive a job offer

compared to overqualified female candidates leaving meritocratic firms (contrast,  $p < .001$ ). Thus, female candidates only experienced a boost from overqualification when leaving firms that were described as having non-meritocratic policies. Women only benefited from possessing additional qualifications in contexts when the audience could make assumptions about women likely experiencing unfair barriers to their career advancement.

**Mediation analyses.** We conducted bootstrapped path analyses to demonstrate how gender differences in perceived firm commitment affect overqualified men's and women's hiring outcomes (see Figure A7 for summary of results) using the same approach as Study 2 (Preacher et al., 2007; Preacher & Hayes, 2004). We theorized that if hiring managers are making assumptions about overqualified women leaving their current firms to avoid unfair barriers to their advancement, and this does partially underly gender differences in the overqualification penalty, we should be able to "turn off" gender differences in how overqualification impacts perceived firm commitment and hiring outcomes when additional information is provided about the candidates' prior firm.

**Firm commitment.** We conducted a bootstrapped moderated mediation model using PROCESS, which included two moderators on the first path. The model included *Overqualification* as the predictor, *Perceived Firm Commitment* as the mediator, and *Offer* as the outcome (qualified candidates set as the reference category). *Female Candidate* and *Meritocratic Prior Firm* moderated the first path. Due to the complexity of running a moderated mediation model with two moderators, we must interpret both the Indices of Partial Moderated Mediation as well as the Table of Indirect Effects that are produced in PROCESS to get a complete picture of the mediation effects. First, results produced two Indices of Moderated Mediation: one for the candidate's gender and one for the prior firm meritocracy condition (see Table A4). Only the Index of Partial Moderated Mediation for prior firm meritocracy condition was significant ( $b = -.658$ ,  $SE = .170$ , 95% CI:  $\{-1.005, -.327\}$ ) and the Index of Partial Moderated Mediation via candidate gender was not (95% CI:  $\{-.250, .386\}$ ). This indicates that the observed mediation effects are the same for male and female candidates.

The Table of Indirect Effects provided a more complete picture by indicating what the indirect effect of *Overqualification*  $\rightarrow$  *Perceived Firm Commitment*  $\rightarrow$  *Offer* was at each level of the two moderators. We observed two negative indirect effects. First, there was a negative indirect effect of *Overqualification* on *Offer* via *Perceived Firm Commitment* for male candidates leaving meritocratic prior firms ( $b = -.704$ ,  $SE = .154$ , 95% CI:  $\{-1.011, -.411\}$ ), indicating that male candidates leaving meritocratic prior firms were viewed as less committed to the prospective firm and less likely to receive a job offer as a result. This provides suggestive evidence that the overqualification penalty is particularly salient for men leaving firms that provided fair advancement opportunities and the decision to change firms is seen as particularly self-interested. We also observed a negative indirect effect for female candidates leaving meritocratic prior firms ( $b = -.642$ ,  $SE = .152$ , 95% CI:  $\{-.945, -.356\}$ ), suggesting that the firm commitment penalty was activated for female candidates leaving meritocratic prior firms. Thus, once it is clarified that women were not changing firms to avoid unfair barriers to their career advancement, the overqualification penalty via perceived firm commitment affected women the same as it did men.

*Career commitment.* Our primary focus in Study 3 was to better understand how the prior firm context can impact perceptions of firm commitment differently for male and female candidates. However, to determine if prior firm context also impacted perceptions of career commitment, we conducted supplementary path analyses. We conducted a bootstrapped moderated mediation model using PROCESS, which included two moderators on the first path. The model included *Overqualification* as the predictor, *Perceived Career Commitment* as the mediator, and *Offer* as the outcome (qualified candidates set as the reference category). *Female Candidate* and *Meritocratic Prior Firm* were included as moderators on the first path. Due to the complexity of running a moderated mediation model with two moderators, we must interpret both the Indices of Moderated Mediation as well as the Table of Indirect Effects that are produced in PROCESS to get a complete picture of the mediation effects. First, results produced two Indices of Moderated Mediation: one for the candidate's gender and one for the prior firm meritocracy condition (see Table A5). Only the Index of Partial Moderated Mediation for the candidate's gender was significant ( $b = .721$ ,  $SE = .171$ , 95% CI:  $\{.394, 1.061\}$ ) and the Index of Partial Moderated Mediation for prior firm

meritocracy was not (95% CI:  $\{-.104, .528\}$ ). This indicates that the observed effects are the same for both types of prior firm contexts.

The Table of Indirect Effects provides a more complete picture by indicating what the indirect effect of *Overqualification*  $\rightarrow$  *Perceived Career Commitment*  $\rightarrow$  *Offer* was at each level of the two moderators. This table indicates there are two positive indirect effects. We observed that there are positive indirect effects of *Overqualification* on *Offer* via *Perceived Career Commitment* for female candidates leaving both meritocratic prior firms ( $b=.866$ ,  $SE=.145$ , 95% CI:  $\{.581, 1.157\}$ ) and non-meritocratic prior firms ( $b=.651$ ,  $SE=.153$ , 95% CI:  $\{.368, .956\}$ ). The indirect effects via *Perceived Career Commitment* were non-significant for male candidates, regardless of the prior firm context. These findings are consistent with our theory and prior results: career commitment continues to be an important explanatory factor for female job candidates' hiring outcomes, but not for male job candidates.

#### Supplemental Analyses for Study 4

##### Measures.

**Likability.** We measured the candidate's perceived likability by asking participants to indicate "To what extent do you think [Thomas/Sarah] is" likable and easy to work with (1=Not at all, 5=Extremely). These two items were combined to create a composite of perceived likability ( $\alpha=.778$ ).

**Career commitment.** While we did not anticipate this communality manipulation will influence perceptions of career commitment, we did measure it to be comprehensive.

**Offer.** The same outcome measure used in Studies 1-3 was also used here.

**Analyses.** We conducted a series of ANOVA analyses to examine how gender, qualification level, and communality impacted the candidate's perceived likability and likelihood to receive a job offer. Due to the number of results, all findings are reported in Table A3, but only notable results of interest are discussed in detail here.

**Likability.** We conducted a gender x qualification level x communality ANOVA on *Likability*. We observed no significant main effects or interactions.

**Career Commitment.** We conducted a gender x qualification level x communality ANOVA on *Perceived Career Commitment*. Although we did not initially hypothesize that communality would impact perceptions of career commitment, we did observe some significant interactions. Of particular interest, is the significant gender x qualification x communality three-way interaction,  $F(1,415)=18.77$ ,  $p<.001$  (see Figure A8). Bonferroni-adjusted contrast testing revealed that regardless of qualification level or communality condition, male candidates were always viewed to be highly committed to their careers. However, communal overqualified female candidates were viewed as more committed to their careers ( $m=6.031$ ) compared to communal qualified candidates ( $m=4.863$ ) (contrast,  $p<.001$ ). This mirrors the findings from prior studies that showed overqualification boosted women's perceived career commitment, suggesting that in prior studies hiring managers may have been defaulting to assuming female candidates were highly communal, which is consistent with prior work on gender stereotypes (Abele, 2003; Abele et al., 2016; Eagly et al., 2019; Heilman, 2012).

However, the opposite was true of non-communal female candidates: non-communal overqualified female candidates were viewed as less committed to their careers ( $m=5.593$ ) compared to non-communal qualified candidates ( $m=6.363$ ) (contrast,  $p=.041$ ). This is an unexpected finding for which we did not immediately have a theoretical explanation. Upon reflection, we now have some postdoc theorizing that may explain this pattern. First, the fact that qualified non-communal women were not perceived as less committed to their careers (indeed, non-communal qualified women are viewed as more committed to their careers compared to communal qualified women) could suggest that non-communal women are not viewed as likely to prioritize their family over their work because they were not described as stereotypically feminine. There would be no initial biased assumption about non-communal women's lower levels of career commitment, in that case. We anticipate part of this issue could have also been that non-communality is not normative for women and, as such, this could have triggered social penalties that negatively impact agentic women (e.g., Phelan et al., 2008; Rudman & Glick, 2001).

**Offer.** We conducted a gender x qualification level x communality ANOVA on *Offer* (see Figure A9). We observed a significant qualification x communal two-way interaction on *Offer*,  $F(1,413)=30.23$ ,

$p < .001$ , such that overqualified non-communal candidates were the least likely to receive a job offer ( $m = 4.929$ ,  $SD = 1.361$ ,  $n = 85$ ) of all conditions, particularly compared to overqualified communal candidates ( $m = 5.805$ ,  $SD = 1.375$ ,  $n = 128$ ) (contrast,  $p < .001$ ).

**Mediation analyses.** We theorized that gender stereotypes about men's and women's communal nature (or lack thereof) explains why overqualification only negatively affect male candidates', but not female candidates', perceived firm commitment. If this is true, we should observe that both overqualified male and female candidates are penalized when they are described to be non-communal. We conducted a bootstrapped moderated mediation model using PROCESS to test this idea, which included two moderators on the first path (see Figure A10 for a summary of results). The model included *Overqualification* as the predictor, *Perceived Firm Commitment* as the mediator, and *Offer* as the outcome (qualified candidates set as the reference category). *Female Candidate* and *Communal Candidate* were included as moderators on the first path. Due to the complexity of running a moderated mediation model with 2 moderators, we must interpret both the Indices of Partial Moderated Mediation as well as the Table of Indirect Effects that are produced in PROCESS to get a complete picture of the mediation effects. First, results produced two Indices of Partial Moderated Mediation: one for the candidate's gender and one for the candidate's communality (see Table C4). Only the Index of Partial Moderated Mediation for communal was significant ( $b = .631$ ,  $SE = .211$ , 95% CI:  $\{.240, 1.055\}$ ) and the Index of Partial Moderated Mediation for gender was not (95% CI:  $\{-.247, .478\}$ ).

The Table of Indirect Effects provides a more complete picture by indicating what the indirect effect of *Overqualification*  $\rightarrow$  *Perceived Firm Commitment*  $\rightarrow$  *Offer* was at each level of the two moderators (see Table A6). This table indicates there are two negative indirect effects. We observed that there are negative indirect effects of *Overqualification* on *Offer* via *Perceived Firm Commitment* for non-communal male ( $b = -.492$ ,  $SE = .184$ , 95% CI:  $\{-.869, -.146\}$ ) and non-communal female candidates ( $b = -.386$ ,  $SE = .176$ , 95% CI:  $\{-.737, -.053\}$ ). This indicates that regardless of the candidate's gender, non-communal candidates are perceived to be less committed to the prospective firm and this ultimately lowers their likelihood of receiving a job offer.

### Sample Experimental Stimuli

See Figure A11 for a sample profile. Please note that all studies were conducted between 2018 and 2020. Profiles were modified for each study to line up with the year that the study was conducted. Please see Figures A12-13 for sample stimuli used for Study 4, to describe candidates as either communal or non-communal.

## Appendix B: Supplement for Chapter 2

### Supplemental Analyses for Study 1

We included an additional two measures to capture the perceptions of how often sponsors provided sponsorship. However, since all effects were non-significant and this was not of core theoretical interest, we reported these analyses in the appendix.

**Perceived frequency of providing sponsorship.** We included two items: “How frequently or infrequently do you think this faculty member recommends potential research assistants to their colleagues?” (-3=Extremely infrequently, 0=Neutral, 3=Extremely frequently); “What percent of students do you think this faculty member has recommended to their colleagues? For example, if you think that this professor has recommended 2 of the 5 students they have worked with, you would indicate that they recommended 40% of their students. For reference: 1 out of 5 = 20%, 2 out of 5 = 40%, 3 out of 5 = 60%, 4 out of 5 = 80%, and 5 out of 5 = 100%” (sliding scale of 0-100). We used the standardized z-scores of these items to create a composite variable representing the overall perceived frequency of providing sponsorship ( $\alpha=.446$ ), to be referred to as *Perceived Sponsor Frequency*. Please note, while the alpha is low for this scale, results are the same if the composite is analyzed or the individual items.<sup>79</sup> A *Male Sponsor* x *Male Candidate* ANOVA on *Perceived Sponsor Frequency* was conducted. Results showed non-significant main effects of *Male Sponsor* ( $p=.963$ ) and *Male Candidate* ( $p=.256$ ). There was also a non-significant interaction ( $p=.799$ ). When *Perceived Sponsor Tenure* is included in this ANOVA, we also see that there is no significant main effect of *Perceived Sponsor Tenure* ( $p=.214$ ), nor are there any two-way

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<sup>79</sup> An ANOVA on the first item and an ANOVA on second item both showed non-significant sponsor gender and candidate gender effects across the board.

interactions with the sponsor's gender ( $p=.428$ ) or the candidate's gender ( $p=.684$ ). There is no three-way interaction ( $p=.930$ ).

**Logit models on *Called Back*.** Considering our main interest was in the interactive effect of the sponsor's gender and his/her perceived tenure on whether s/he was called back and the protégé hired, we conducted linear probability models and these are reported in the main body of the paper. However, to be comprehensive, we also re-ran all analyses in a logit framework (see Table B1). Results were the same across LPM and logit models.

**Alternative mediation models.** We conducted several alternative moderated mediation models to demonstrate that the model reported is the best fit (see Figure B1). To best illustrate these, we have included figures of each of these non-significant path analyses below and have reported the 95% confidence intervals of the moderated mediation index or the serial mediation index, depending on the type of model that was run. All models were run using the SPSS macro PROCESS. Please note, for Path 3, we decomposed the *Perceived Sponsor Tenure* composite variable into two separate items: *Perceived Sponsor Experience* (composite of 2 items measuring the sponsor's perceived experience in the field and working with candidates, see Study 1 measures for details) and *Perceived Sponsor Status* (single item measuring the sponsor's status in the field). The candidate's gender was included as a covariate in all of these models.

### **Supplemental Analyses for Study 2**

Please see Tables B3-B4 for additional details about the sample of D.C. Circuit clerks (i.e., candidates) that were applying for SCOTUS clerkships, including breakdown by gender. Tables B5 includes a more detailed accounting of the distribution of candidate characteristics across D.C. Circuit Judges. Table B6 demonstrates that all findings were robust to a logit framework.

### **Supplemental Survey Evidence: Gender Differences in Sponsor Frequency**

To account for additional explanations of gender differences in sponsor effectiveness, we conducted an additional study. First, we conducted a survey of fully employed adults to test for evidence of gender differences in the rate of which men and women receive sponsorship, which is an alternative explanation for gender differences observed in sponsorship.



**Methods.** To test for gender differences in likelihood to receive sponsorship, we surveyed workers who were currently employed full time about their experiences receiving sponsorship.<sup>80</sup> Participants in supervisor and non-supervisor roles were recruited for the survey to provide an approximation for the participant's (i.e., the protégé's) career success. Participants self-reported if, when, and how often they had received different types of sponsorship. This data allowed us to test if there are protégé gender differences in likelihood to receive sponsorship. In addition, we also asked participants to describe a memorable experience receiving sponsorship and then provide demographic information about the individual who provided the support. This data will allow us to do an indirect test of the hypothesis that sponsor gender and protégé gender may interact to affect a protégé's likelihood to receive sponsorship. While this response to the open-ended item does not measure frequency of support received from a specific sponsor, it does provide a way to tabulate how common certain sponsor-protégé gender pairings are in general, which may provide insight for how likely protégés are to receive at least one instance of sponsorship from a male or female sponsor.

**Sample.** Participants were 398 members of the Amazon Mechanical Turk (MTurk) platform (51.8% male, 81.4% White/Caucasian, age  $m=37.5$  years). Participants who were currently employed full time in non-supervisor and supervisor positions were recruited using TurkPrime's panel data services (Litman, Robinson, & Abberbock, 2017). Participants recruited through the Mturk platform have been found to be slightly more educated and technologically-savvy than the average U.S. citizen (Berinsky, Huber, & Lenz, 2012; Buhrmester, Kwang, & Gosling, 2011). Two separate study links were created to ensure that an equal number of supervisor and non-supervisor participants were included in the sample.

**Procedure, measures, and variables.** Upon consent, participants were asked to provide basic information about their current position and organization. They were provided with a definition of sponsorship and examples of different sponsorship behaviors, and self-reported if, when, and how often

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<sup>80</sup> We also surveyed participants about receipt of mentorship. However, because this was not central to our research question and due to space limitations, these results are not reported here but are available upon request. Measures for receipt of mentorship were the same as those used to measure receipt of sponsorship. Presentation of blocks of mentorship and sponsorship items were randomized (i.e., some participants answered sponsorship questions first, while others answered mentorship questions first).

they had received different types of sponsorship. Participants also described a memorable instance of receiving sponsorship and provided additional information about the individual who provided the support (demographic and organizational characteristics). Participants concluded by reporting their demographic information.

***Participant job information.*** Participants responded to a series of items designed to ascertain their current position with their respective organizations. These items asked about their current job title (open-ended response), the number of supervisors they had thus far worked under (open-ended response), and the amount of power and status they currently held in their firm (1 = Little to none, 5 = Large amount). Participants also reported on their organizational and industry tenure: “How long have you worked in this organization?” (1=“0 to 1 year”, 2=“1 year to 2 years”, 3=“3 to 5 years”, 4=“6 to 10 years”, 5=“11 to 20 years”, 6=“20+ years”); “How long have you been working in this industry? (same response choices as prior item).

***Participant supervisor status.*** To recruit supervisors and non-supervisors, we used TurkPrime filtering capabilities to only target individuals who had indicated they currently hold a supervisor. An indicator variable was created to represent if the individual was currently a supervisor or not.

***Receipt of sponsorship.*** Participants were told sponsorship behaviors were “those designed to help improve the opportunities available to the worker so that they can advance in their career” and that these behaviors “usually take the form of using the manager’s own status and influence to identify opportunities for and advocate for an employee that they have already identified as a promising prospect”. Participants were provided with four example sponsorship behaviors: (1) use their status and influence to advocate for the junior employee’s advancement, (2) identify promising career opportunities and stretch assignments for the junior employee, (3) make strategic introductions for the junior employee to other influential members of the organization, and (4) advocate for the junior employee’s promotion (Ibarra et al., 2010). Below these definitions and example behaviors, participants were provided with a matrix with different types of sponsorship behaviors listed in rows of the matrix and career stages included as columns of the matrix.

These career stages included: (1) 0-6 months in career, (2) 1-2 years in career, (3) 2-5 years in career, (4) 5-10 years in career, and (5) 10+ years in career.

Participants were instructed to indicate approximately how often they had experienced each of these different types of support in the various stages of their career by putting a number in the intersection of the sponsorship behavior row and career stage column. For example, if a participant wanted to report that s/he had received two instances of someone making a strategic introduction in his/her first year of work, s/he would input a “2” in the box under the column for 1-2 years in career and in the row corresponding to strategic introductions to other influential members of the organization. Participants were also instructed that if they had not received a specific type of support or had not experience support during a certain career stage, to put a “0” in the cell as opposed to leaving it blank.

*Total amount of sponsorship received.* The amount of sponsorship participants reported receiving (across different sponsorship types and career stages) was summed to represent the total amount of sponsorship a participant received.

*Sponsor characteristics.* Participants described a memorable experience of receiving sponsorship (open-ended response) and then provided additional information about the individual who provided the support, including demographic information (race, gender) and organizational characteristics, such as level of power and status (1 = Little to none, 5 = Large amount), and their tenure in organization. Participants were also asked to indicate their own positions within the organization at the time of the sponsorship experience and their tenure in the organization and industry when they had received the support (1=“0 to 1 year”, 2=“1 year to 2 years”, 3=“3 to 5 years”, 4=“6 to 10 years”, 5=“11 to 20 years”, 6=“20+ years”) and their level of power and status at the time of receiving the support (1= Little to none, 5= Large amount). Participants were provided with the option to leave the open-ended response and all subsequent demographic questions concerning the sponsor blank if they had not received sponsorship before or could not think of a memorable instance.

**Results.** In analyzing our data, we first examined participant characteristics. Next, we tested for participant (i.e., protégé) gender differences in the amount of sponsorship received and examined the

relationship between the amount of sponsorship received and the participant's supervisor status. Finally, in supplemental analyses, we explored the relationship between participant gender, sponsor gender, and the participant's supervisor status. Descriptive statistics are reported in Table B7.

To ensure our method of recruiting participants who currently hold supervisor and non-supervisor positions was accurate, we created a composite variable to represent participants' current level of power and status within their respective organizations ( $\alpha=.809$ ). A participant gender by supervisor status ANOVA on participants' current power/status showed a significant main effect of supervisor status,  $F(1,394)=76.238$ ,  $p<.001$ , such that supervisors reported holding more power and status ( $m=3.407$ ,  $SD=.788$ ,  $n=199$ ) compared to non-supervisors ( $m=2.633$ ,  $SD=.954$ ,  $n=199$ ). There was no main effect of participant gender ( $p=.905$ ), nor did participant gender interact with supervisor status ( $p=.672$ ). Yet, despite that there were no participant gender differences in current power/status, a chi-square test showed male participants were more likely to currently hold supervisor positions,  $\chi(1)=5.796$ ,  $p=.016$ . A one-way ANOVA of participant gender on current organizational tenure also showed significant differences,  $F(1,394)=6.615$ ,  $p=.010$ , such that female participants were more tenured within their respective organizations ( $m=3.560$ ,  $SD=1.187$ ,  $n=192$ ) compared to male participants ( $m=3.290$ ,  $SD=1.073$ ,  $n=206$ ) (no significant differences in participant gender for industry tenure). Thus, consistent with prior research on women's slower career progression (Catalyst, 2018; Pew Research Center, 2015; Warner & Corley, 2017), we find that despite being in their respective organizations longer (and in their respective industries for just as long), female participants were less likely to currently hold supervisor positions than male participants.

***Gender differences in total sponsorship received.*** To test for differences in the amount of sponsorship men and women reported receiving, a zero-inflated negative binomial regression using participant (i.e., protégé) gender as predictor for the total amount of sponsorship received was conducted.<sup>81</sup>

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<sup>81</sup> Model fit indices indicate that the zero-inflated negative binomial regression model is a better fit for the data (Model 1,  $AIC=2973.684$ ) compared to a standard Poisson model ( $AIC=13714.450$ ) standard negative binomial regression model ( $AIC=3221.317$ ) and a zero-inflated Poisson regression ( $AIC=11625.820$ ).

Results are reported in Table B8. Analyses showed no significant differences between the total amount of sponsorship men and women reported receiving (Model 1,  $p=.416$ ) and this effect remained non-significant after accounting for the total number of supervisors that participants have reported to over the course of their career and if the participant was a supervisor (Model 2,  $p=.804$ ). The number of prior supervisors was included as a covariate because the total number of prior supervisors could affect opportunity to receive sponsorship. In addition, the participant's likelihood to receive sponsorship may be tied to his/her supervisor status and, as such, it was included as a covariate as well. This allows us to observe protégé gender differences in receipt of sponsorship, above and beyond their current supervisor status.

Next, we examined if gender differences in receipt of sponsorship differed among non-supervisor and supervisor populations. It is expected that supervisors may have received more sponsorship compared to non-supervisors; for instance, it may be that individuals are in supervisor positions because they have received more sponsorship than others who are not in supervisor positions. As such, we conducted analyses within non-supervisor and supervisor populations to ensure comparable comparisons were being made (i.e., male non-supervisors v. female non-supervisors and male supervisors v. female supervisors). A zero-inflated negative binomial model using male participant (dummy variable) as the predictor on total sponsorship received, for only non-supervisors, was conducted. Results indicated that male non-supervisors reported receiving marginally more sponsorship than female non-supervisors (Model 1,  $b=.318$ ,  $p=.053$ ), although this effect became non-significant once we included the number of supervisors the participant has reported having as a covariate (Model 2,  $p=.116$ ) (see Table B9). A second zero-inflated negative binomial regression using male participant (dummy variable) as the predictor on total sponsorship received, for only supervisors, was conducted. Results showed no participant gender significant differences in likelihood to receive sponsorship (Model 1,  $p=.333$ ) and this remained non-significant after the number of prior supervisors was included as a covariate (Model 2,  $p=.159$ ) (see Table B10). Taken together, we observed no evidence for gender differences in total amount of sponsorship received.<sup>82</sup>

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<sup>82</sup> Please note: the primary goal of including different career stages and type of sponsorship in the matrix that was used by participants was to ease cognitive calculations for participants. For instance, it may be easier for participants to accurately estimate

Women may be more or less likely to receive sponsorship from female sponsors compared to male sponsors. We cannot directly test this hypothesis because the way we measured total sponsorship received in this study did not inquire about the gender of the sponsor for each instance of sponsorship. However, we did ask participants to describe a particularly memorable instance of receiving sponsorship and to provide demographic information about that sponsor.<sup>83</sup> This will allow us to test for which pairings of sponsors and protégés were most common in our data. A chi-square test of participant gender by the gender of the sponsor participants described in the open-ended response item indicated same-gender sponsor-protégé pairings were more likely to occur than mixed-gender pairings,  $\chi^2(1)=58.490$ ,  $p<.001$ , such that male participants were more likely to describe experiencing sponsorship from male sponsors and female participants were more likely to describe experiencing sponsorship from female sponsors (see Table B11). We cautiously interpret this finding as indirect support for the notion that women may be more likely to receive sponsorship from other women. While we do not test the actual frequency of support provided by the sponsors described in this open-ended response, this finding does suggest that when women have received sponsorship (at least once), it was more likely to be from another woman than it was from a man.

**Posthoc analyses.** We elected to conduct some supplemental analyses to better understand the relationships present in the data. First, a correlational analysis indicated that the total amount of sponsorship received was not related to the participant's supervisor status (i.e., if the participant currently held a supervisor or non-supervisor position), for both male ( $r=-.076$ ,  $p=.280$ ) and female ( $r=.060$ ,  $p=.409$ )

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how much sponsorship they have received if we provide them with categories to narrow their focus. However, our primary interest was overarching differences, which is why we summed these categories to create a total sponsorship received composite. However, to be thorough, we also conducted comparable models on stages of the participant's career and for each specific type of sponsorship, which are discussed in more detail in the Appendix. As a brief overview, results showed no participant gender differences among different stages of the participant's career in terms of sponsorship received. But female supervisors did report receiving more sponsorship than male supervisors in some categories (not among non-supervisors), although these differences did not emerge in terms of overall sponsorship received.

<sup>83</sup> To ensure participants were accurately describing sponsorship, the responses were content coded for the four main types of sponsorship behavior previously identified in the literature (Ibarra et al., 2010). We included a fifth category of "other", which included blank responses (i.e., a participant had not received sponsorship before and therefore left this open-ended response blank) or responses that would not be categorized by sponsorship based on prior literature and the sample sponsorship behaviors provided to participants in the survey. In addition, some participants described instances of that would be categorized as mentorship (e.g., assistance with skill development) when responding to the sponsorship experience item. All findings reported here were robust to the exclusion of participants who described sponsorship behavior categorized as "other". Analyses reported here were conducted after excluding responses in the "other" category.

participants. We took this as evidence that the total amount of sponsorship participants did report receiving was not strongly associated with their career success, suggesting that the relationship between sponsorship and career advancement may be more complex than just considering the amount of sponsorship individuals receive.

We conducted additional analyses of the open-ended response items. A chi-square test demonstrated there were no statistically significant differences in the behaviors female participants described their sponsors providing compared to those male participants described their sponsors providing ( $p=.268$ ). Moreover, a chi-square test also showed no sponsor gender differences in sponsorship behaviors described ( $p=.878$ ), indicating participants did not describe male and female sponsors providing different types of sponsorship. An additional possibility is that differences may exist in the power and status of the sponsor that male and female participants reported receiving sponsorship from in this open-ended response item. To test for this possibility, a composite variable was created to represent the participant's rating of his/her sponsor's power and status at the time of the participant's sponsorship experience ( $\alpha=.932$ ). However, a t-test showed no significant differences ( $p=.619$ ), indicating that male and female participants reported receiving sponsorship from sponsors of equivalent power and status.

To this point, we have explored the possibility that sponsors of male and female protégés either differ in their characteristics (e.g., power/status) or tactics used. Conceptually, this implied that sponsor behavior is driven by the gender of the protégé. However, yet another possibility is that sponsor effectiveness is driven by the gender of the sponsor, and not the gender of the protégé. Indeed, in the preliminary results we found evidence that same-gender sponsor-protégé pairings were more likely to occur than cross-gender pairings. But do these pairings have a meaningful relationship with the participant's career success? A chi-square test was conducted between the participant's supervisor status and the gender of the sponsor participants reported receiving sponsorship from, which revealed participants who reported receiving support from a male sponsor were more likely to currently be supervisors,  $\chi^2(1)=8.846$ ,  $p=.003$  (see Table B12). To determine if the gender of the participant changed the relationship between sponsor gender and the participant's supervisor status, we included participant gender as an additional layer in the

chi-square test. Results showed the relationship between sponsor gender and supervisor status was only significant overall and was not different for male ( $p=.118$ ) versus female ( $p=.108$ ) participants.

**Discussion of findings.** We surveyed full-time employed workers about their experiences receiving sponsorship. Analyses showed no significant differences in the total amount of sponsorship male and female participants reported experiencing, nor did the total amount of sponsorship received correlate with male and female participants' supervisor status. The fact that we did not observe and participant gender differences in the total amount of sponsorship received is inconsistent with results reported by Ibarra and colleagues (Allen et al., 2004a), but is more consistent with the lack of consistent gender effects found in receipt of career development mentorship (Allen et al., 2004). While we cannot causally examine the effect of total sponsorship received on career outcomes with the present data, the lack of a correlational relationship between total sponsorship received and supervisor status is suggestive. If the amount of sponsorship male and female participants reported receiving in their careers has no statistical relationship with their supervisor status, that would suggest that the effect of sponsorship on men's and women's career trajectories is more complex than one would initially anticipate.

Results also showed same-gender sponsor-protégé pairings were more common, indicating that female participants were more likely to receive sponsorship from a female sponsor than a male sponsor. This finding does not directly test the possibility that women are particularly likely or unlikely to receive sponsorship from other women because analyses were based on responses to the open-ended survey item that inquired about a particularly memorable sponsorship experience. But it does suggest that female participants were more likely to describe a memorable sponsorship experience with a female sponsor, compared to a male sponsor. Importantly, this did not seem to have a relationship with their ultimate career success: participants who reported receiving sponsorship from a male sponsor were more likely to also hold supervisor positions, compared to those who reported receiving sponsorship from a female sponsor, although this relationship did not vary based on the gender of the participant.

In summary, results showed no relationship between the participant's (i.e. protégé's) gender and the total amount of sponsorship s/he reported receiving. However, who one received sponsorship from



emerged as a potentially important factor: analyses found that participants with male sponsors were more likely to be supervisors themselves, regardless of protégé gender, suggesting that the sponsor's gender may have an important relationship with the protégé's career outcomes. The lack of any overall gender differences in amount of sponsorship received suggests this correlation between the sponsor's gender and the participant's supervisor status is not driven only by differences in the amount of sponsorship received (although we cannot rule that out completely. We elected to conduct a second study to replicate and extend the relationship between the protégé's career outcomes and the sponsor's gender in a different context.

### **Appendix C: Supplement for Chapter 3**

Please see Tables C1-C2, which provides supplementary qualitative support for the arguments included in Chapter 3. These tables include additional quotes by subject and assigned code but are not comprehensive of all coded statements from all interviews.

## Appendix Tables

**TABLE A1.** Descriptive statistics and correlation matrix for pilot study (Chapter 1 Appendix, Pilot Study)

	M	SD	1	2
1. Female Candidate	0.462	0.500		
2. Overqualified Candidate	0.523	0.501	0.060	
3. Offer	5.015	1.545	-0.043	-0.144*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE A2.** Descriptive statistics and correlation matrix (Chapter 1 Appendix, Study 2 replication)

	M	SD	1	2	3	4	5
1. Female Candidate	0.509	0.501					
2. Overqualified Candidate	0.505	0.501	0.017				
3. Perceived Firm Commitment	0.029	0.779	0.093	0.214**			
4. Perceived Career Commitment	5.246	1.037	0.179**	-0.007	0.290***		
5. Competence (standardized)	5.967	1.039	-0.190***	0.244***	0.441***	0.286***	
6. Offer	5.759	1.134	0.162**	0.002	0.325***	0.660***	0.459***

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE A3.** Results of ANOVA models (Chapter 1 Appendix, Study 3-4 supplemental analyses)

<i>Study 3: Results of 2 (candidate gender) x 2 (candidate qualification level) x 2 (prior firm meritocracy condition) ANOVA on Offer</i>	
	Offer (F-Stat)
Female Candidate	9.23**
Overqualified Candidate	1.88
Meritocratic Prior Firm	4.72**
Female Candidate x Overqualified Candidate	12.04***
Female Candidate x Meritocratic Prior Firm	3.70 <sup>†</sup>
Overqualified Candidate x Meritocratic Prior Firm	29.26***
Female Candidate x Overqualified Candidate x Meritocratic Prior Firm	0.62
Constant	8.72***
Residual Degrees of Freedom	414
Observations	421

<i>Study 4: Results of 2 (candidate gender) x 2 (candidate qualification level) x 2 (candidate communality) ANOVA on Perceived Likeability, Perceived Career Commitment, and Offer</i>			
	Perceived Likability (F-Stat)	Perceived Career Commitment (F-Stat)	Offer (F-Stat)
Female Candidate	1.62	2.38	0.00
Overqualified Candidate	0.04	0.99	2.84 <sup>†</sup>
Communal Candidate	0.07	3.34 <sup>†</sup>	1.31
Female Candidate x Overqualified Candidate	2.33	0.45	0.15
Female Candidate x Communal Candidate	0.27	6.79**	0.16
Overqualified Candidate x Communal Candidate	1.69	14.09***	30.23***
Female Candidate x Overqualified Candidate x Communal Candidate	1.73	18.77***	0.51
Constant	1.21	6.00***	4.90***
Residual Degrees of Freedom	417	415	413
Observations	424	422	420

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE A4.** Moderated mediation models for *Perceived Firm Commitment* (Chapter 1 Appendix, Study 3 supplemental analyses)

<i>Indices of partial moderated mediation</i>		Coefficient	(SE)	95% CI
Female Candidate		0.061	(0.162)	−0.250, 0.386
Meritocratic Prior Firm		−.658*	(0.170)	−1.005, −0.327
<i>Table of indirect effects</i>				
Moderator 1	Moderator 2	Coefficient	(SE)	95% CI
Female Candidate	Non-meritocratic Prior Firm	0.016	(0.013)	−0.242, 0.268
	Meritocratic Prior Firm	−0.642*	(0.152)	−0.945, −0.356
Male Candidate	Non-meritocratic Prior Firm	−0.046	(0.144)	−0.337, 0.235
	Meritocratic Prior Firm	−0.704*	(0.154)	−1.011, −0.411

*Note:* Table A4 shows the results from the moderated mediation analysis for perceptions of firm commitment using the SPSS macro PROCESS conducted for supplementary analyses in Study 3. The indices of partial moderated mediation indicate if the mediation model of Overqualification on Offer via Perceived Firm Commitment was supported for the two moderators. Results showed that the model was not moderated by two moderators, but by one: if the prior firm was meritocratic or not. This model was not further moderated by the candidate's gender. The table of indirect effects provides additional insight. Results showed that for male and female candidates leaving meritocratic prior firms, there was a negative indirect effect of overqualification on likelihood to receive a job offer via perceptions of commitment to the prospective firm.

\*95% CI does not include zero

**TABLE A5.** Moderated mediation models for *Perceived Career Commitment* (Chapter 1 Appendix, Study 3 supplemental analyses)

<i>Indices of partial moderated mediation</i>		Coefficient	(SE)	95% CI
Female Candidate		0.721*	(0.171)	0.394, 1.061
Meritocratic Prior Firm		0.216	(0.161)	−0.104, 0.528
<i>Table of indirect effects</i>				
Moderator 1	Moderator 2	Coefficient	(SE)	95% CI
Female Candidate	Non-meritocratic Prior Firm	0.651*	(0.153)	0.368, 0.956
	Meritocratic Prior Firm	0.866*	(0.145)	0.581, 1.157
Male Candidate	Non-meritocratic Prior Firm	−0.070	(0.156)	−0.378, 0.228
	Meritocratic Prior Firm	0.146	(0.137)	−0.131, 0.403

*Note:* Table A5 shows the results from the moderated mediation analysis for perceptions of career commitment using the SPSS macro PROCESS conducted for supplementary analyses in Study 3. The indices of partial moderated mediation indicate if the mediation model of Overqualification on Offer via Perceived Career Commitment was supported for the two moderators. Results showed that the model was not moderated by two moderators, but by one: candidate gender. This model was not further moderated by the type of prior firm. The table of indirect effects provides additional insight. Results showed that regardless of the type of prior firm, there was a positive indirect effect of overqualification on likelihood to receive a job offer via perceived career commitment for female candidates.

\*95% CI does not include zero

**TABLE A6.** Moderated mediation models for *Perceived Firm Commitment* (Chapter 1 Appendix, Study 4 supplemental analyses)

<i>Indices of partial moderated mediation</i>		Coefficient	(SE)	95% CI
Female Candidate		0.107	(0.186)	−0.247, 0.478
Meritocratic Prior Firm		0.631*	(0.211)	0.240, 1.055
<i>Table of indirect effects</i>				
Moderator 1	Moderator 2	Coefficient	(SE)	95% CI
Female Candidate	Non-communal Candidate	−0.386*	(0.176)	−0.737, −0.053
	Communal Candidate	0.246	(0.172)	−0.082, 0.593
Male Candidate	Non-communal Candidate	−0.492*	(0.184)	−0.869, −0.146
	Communal Candidate	0.139	(0.160)	−0.171, 0.458

*Note:* Table A6 shows the results from the moderated mediation analysis for perceptions of firm commitment using the SPSS macro PROCESS conducted for Study 4. The indices of partial moderated mediation indicate if the mediation model of Overqualification on Offer via Perceived Firm Commitment was supported for the two moderators. Results showed that the model was not moderated by two moderators, but by one: candidate communality. This model was not further moderated by candidate gender. The table of indirect effects provides additional insight. Results showed that regardless of the candidate's gender, there was a negative indirect effect of overqualification on likelihood to receive a job offer via perceptions of firm commitment for non-communal candidates.

\*95% CI does not include zero

**TABLE A7.** Sample size by condition (Chapter 1 Appendix, Study 4)

		Overqualified	Qualified	Total
Communal Candidate	Female Candidate	67	40	107
	Male Candidate	63	49	112
	Total	130	89	219
Non-communal Candidate	Female Candidate	43	62	105
	Male Candidate	42	59	101
	Total	85	121	206
Total		215	210	425

*Note:* Table A7 includes the full sample of 425 participants. Three participants did not complete the study, and the majority of analyses are conducted on a sample of 422.

**TABLE B1.** Logit model on if the sponsor was called back (Chapter 2 Appendix, Study 1)

	(1)	(2)	(3)	(4)	(5)	(6)
Male Sponsor	.277 (.263)	.328 (.286)	.293 (.288)	.369 (.294)	.329 (.294)	.572 (.446)
Perceived Sponsor Tenure	.870*** (.165)	.798*** (.224)	.364 (.261)	.690** (.232)	.396 (.266)	.172 (.382)
Male Candidate	-.174 (.263)	-.184 (.264)	-.212 (.269)	-.137 (.271)	-.159 (.274)	.031 (.393)
Male Sponsor x Perceived Sponsor Tenure		.153 (.330)	.317 (.341)	.075 (.341)	.203 (.349)	.668 (.539)
Male Candidate x Perceived Sponsor Tenure						.404 (.483)
Male Sponsor x Male Candidate						-.468 (.602)
Male Sponsor x Perceived Sponsor Tenure x Male Candidate						-.818 (.707)
Perceived Sponsor Credibility			.598*** (.176)		.426* (.186)	.429* (.187)
Perceived Candidate Quality				.583*** (.136)	.491*** (.143)	.472*** (.144)
Constant	1.607*** (.232)	1.591*** (.233)	1.665*** (.239)	-.668 (.562)	-.255 (.597)	-.260 (.611)
Pseudo-R <sup>2</sup>	.083	.084	.114	.128	.141	.145
AIC	379.837	381.622	371.521	365.727	362.352	366.841
ll(model)	-185.918	-185.811	-179.760	-176.863	-174.176	-173.420
Observations	426	426	426	426	426	426

Note: Table B1 reports results from logit models on if the sponsor was called back and the candidate hired (results consistent with a linear probability model framework). Standard errors in parentheses.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE B2.** Transcript of voicemail message for male and female sponsors (Chapter 2 Appendix, Study 1)

"Hi this is (sponsor name), I got your email about potential research assistants and I think I have the perfect person for you. (Candidate name) just graduated from our psychology program here and I've been working with (him/her) for the past 2 years or so. You mentioned you were looking for someone who is a self-starter and I immediately thought about (candidate name). (S/he) actually approached me directly about working together when (s/he) was a sophomore which, as you know, is pretty rare for an undergrad. And, I've been nothing but impressed with (candidate name) ever since. Anyway, I could go on and on about (candidate name), but I'll wait to hear from you before I clog up your inbox! Hope to chat soon."

Note: Table B2 reports the script used in Study 1. This same script was used by all actors to produce the audio stimuli used in Study 1. All recordings were 40-50 seconds in length.

**TABLE B3.** Distribution of candidate characteristics (Chapter 2 Appendix, Study 2)

	Full Sample ( <i>n</i> =669)	Successful Clerks ( <i>n</i> =191)	Proportion Test Z-Scores
Candidate gender	69.66% male ( <i>n</i> =466)	65.45% male ( <i>n</i> =125)	1.50
Candidate Editor	50.22% editors ( <i>n</i> =336)	59.69% editors ( <i>n</i> =114)	-3.09**
Candidate Top-5 Grad (overall)	55.31% graduated from Top-5 school ( <i>n</i> =370)	72.77% graduated from Top-5 school ( <i>n</i> =139)	-5.74***
Candidate Harvard Grad	19.73% ( <i>n</i> =132)	25.65% ( <i>n</i> =49)	-2.43*
Candidate Columbia Grad	5.23% ( <i>n</i> =35)	7.33% ( <i>n</i> =14)	-1.54
Candidate Yale Grad	17.64% ( <i>n</i> =118)	25.13% ( <i>n</i> =48)	-3.21***
Candidate Stanford Grad	8.22% ( <i>n</i> =55)	9.95% ( <i>n</i> =19)	-1.03
Candidate UChicago Grad	4.48% ( <i>n</i> =30)	4.71% ( <i>n</i> =9)	-.18

*Note: Table B3 includes additional descriptive statistics of the sample. Data set includes multiple observations of candidates of 17 D.C. Circuit judges across multiple years (1995-2015). This table includes additional descriptive statistics of the candidate observations. To determine if there were meaningful differences between successful SCOTUS clerks and unsuccessful candidates, proportion tests comparing those two populations were conducted. The table above includes details of the full sample for descriptive purposes.*

**TABLE B4.** Distribution of candidate characteristics by gender (Chapter 2 Appendix, Study 2)

	Full sample ( <i>n</i> =669)	Successful Clerks ( <i>n</i> =191)
Candidate Editor	50.22% editors ( <i>n</i> =336)	59.69% editors ( <i>n</i> =114)
	76.79% of editors male ( <i>n</i> =258)	73.68% of editors male ( <i>n</i> =84)
Candidate Top-5 Grad	55.31% ( <i>n</i> =370)	72.77% ( <i>n</i> =139)
	69.73% of graduates male ( <i>n</i> =258)	62.59% of graduates male ( <i>n</i> =87)
Candidate Harvard Grad	19.73% ( <i>n</i> =132)	25.65% ( <i>n</i> =49)
	74.24% of graduates male ( <i>n</i> =98)	65.31% of graduates male ( <i>n</i> =32)
Candidate Columbia Grad	5.23% ( <i>n</i> =35)	7.33% ( <i>n</i> =14)
	82.86% of graduates male ( <i>n</i> =29)	64.29% of graduates male ( <i>n</i> =9)
Candidate Yale Grad	17.64% ( <i>n</i> =118)	25.13% ( <i>n</i> =48)
	65.25% of graduates male ( <i>n</i> =77)	58.33% of graduates male ( <i>n</i> =28)
Candidate Stanford Grad	8.22% ( <i>n</i> =55)	9.95% ( <i>n</i> =19)
	58.18% of graduates male ( <i>n</i> =32)	57.89% of graduates male ( <i>n</i> =11)
Candidate UChicago Grad	4.48% ( <i>n</i> =30)	4.71% ( <i>n</i> =9)
	73.33% of graduates male ( <i>n</i> =22)	77.78% of graduates male ( <i>n</i> =7)

*Note: Table B4 includes additional descriptive statistics of the sample, by gender. Data set includes multiple observations of candidates of 17 D.C. Circuit judges across multiple years (1995-2015). This table includes additional descriptive statistics of the candidate observations, by gender.*

**TABLE B5.** Distribution of D.C. Circuit Judge characteristics across candidate observations (Chapter 2 Appendix, Study 2)

	Full Sample ( <i>n</i> =669)	Successful clerks ( <i>n</i> =191)	Proportion Test Z-scores
Candidates of male judges	77.43% ( <i>n</i> =518)	91.62% ( <i>n</i> =175)	-5.55***
Candidates of judges from Top-5 law schools	70.40% ( <i>n</i> =471)	78.53% ( <i>n</i> =150)	-2.91**
Candidates of senior status judges	14.35% ( <i>n</i> =96)	7.33% ( <i>n</i> =14)	3.274***
Candidates of Republican White House-nominated judges	62.18% ( <i>n</i> =416)	53.93% ( <i>n</i> =103)	2.78**
T-test Scores			
Average judge tenure for candidates	<i>m</i> =12.66 years	<i>m</i> =11.45 years	2.498**
Of candidates with male judges only	<i>m</i> =13.50 years	<i>m</i> =11.69 years	
Of candidates with female judges only	<i>m</i> =9.80 years	<i>m</i> =8.81 years	
Average successful prior clerk tally	<i>m</i> =8.39	<i>m</i> =11.74	-6.75***
Of candidates with male judges only	<i>m</i> =10.13	<i>m</i> =12.43	
Of candidates with female judges only	<i>m</i> =2.430	<i>m</i> =4.19	

*Note: Table B5 includes additional descriptive statistics of the sample. Data set includes multiple observations of candidates of 17 D.C. Circuit judges across multiple years (1995-2015). This table includes additional descriptive statistics of the candidate observations, by the gender of the D.C. Circuit judge that recommended the candidate. To determine if there were meaningful differences between samples of successful SCOTUS clerks and unsuccessful candidates, proportion tests and t-tests were performed. Table above shows the full sample of all candidates for descriptive purposes.*

**TABLE B6.** Logit model on the candidate successfully advancing to SCOTUS clerkship in full sample (M1-5) and CEM sample (M6-10) (Chapter 2 Appendix, Study 2)

	Analyses on Full Sample (M1-M5)					Analyses on CEM Sample (M6-M10)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Male Judge	1.604*	3.697*	2.985	2.754	2.946	1.739**	3.818*	4.240	3.922	4.154
	(.648)	(1.477)	(1.951)	(2.168)	(2.162)	(.607)	(1.560)	(2.984)	(3.147)	(3.117)
Judge Tenure	-.053	.175 <sup>†</sup>	.146	.184	.196	-.021	.172	.197	.256	.254
	(.044)	(.105)	(.132)	(.145)	(.143)	(.047)	(.109)	(.185)	(.202)	(.198)
Male Candidate	-.337	2.818	2.660	3.248	3.412	-.732	2.671	3.453	4.418	4.619
	(.325)	(2.221)	(2.721)	(2.917)	(2.871)	(.514)	(2.471)	(3.927)	(4.231)	(4.123)
Male Judge x Judge Tenure		-.254*	-.261 <sup>†</sup>	-.272 <sup>†</sup>	-.289 <sup>†</sup>		-.226	-.400*	-.434 <sup>†</sup>	-.446*
		(.128)	(.142)	(.158)	(.155)		(.144)	(.201)	(.228)	(.228)
Male Candidate x Male Judge		-3.335	-3.133	-3.388	-3.623		-3.509	-4.339	-4.719	-5.099
		(2.346)	(2.748)	(2.943)	(2.906)		(2.656)	(4.052)	(4.298)	(4.104)
Male Candidate x Judge Tenure		-.465**	-.472*	-.552*	-.582*		-.437*	-.578 <sup>†</sup>	-.699 <sup>†</sup>	-.721
		(.165)	(.203)	(.240)	(.237)		(.201)	(.330)	(.393)	(.381)
Male Candidate x Male Judge x Judge Tenure		.492**	.511*	.567*	.603*		.472*	.701*	.800 <sup>†</sup>	.827*
		(.175)	(.214)	(.247)	(.242)		(.220)	(.348)	(.410)	(.392)
Judge Senior Status			-.758	-1.275	-1.215 <sup>†</sup>			-1.064	-1.127	-1.048
			(.567)	(.617)	(.637)			(1.274)	(1.286)	(1.395)
Judge Top-5 Grad			.302	.155	.194			-.145	-.581	-.560
			(.386)	(.361)	(.370)			(1.009)	(1.020)	(.950)



	Analyses on Full Sample (M1-M5)					Analyses on CEM Sample (M6-M10)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Judge Repub. Nominee			.730 <sup>†</sup> (.422)	.656 (.402)	.576 (.405)			1.239 <sup>†</sup> (.648)	1.161 <sup>†</sup> (.697)	.992 (.747)
Judge Clerk Tally			.138*** (.039)	.126** (.044)	.124*** (.043)			.196** (.060)	.206** (.065)	.216** (.067)
Candidate Top-5 Grad			.171 (.422)	.160 (.482)				-.562 (.543)	-.642 (.697)	-.962 (1.121)
Candidate Editor			.438 <sup>†</sup> (.228)	.481* (.225)	.445 <sup>†</sup> (.234)			.706 (.437)	.711 (.448)	.461 (.455)
Judge-Candidate Educ Match				-.814* (.327)	-.935 (.369)				-.991 (.778)	-1.117 (.973)
Judge-Justice Educ Match				.000 (.000)	.000 (.000)				.000 (.000)	.000 (.000)
Candidate Columbia Grad					.184 (.562)					1.100 (1.484)
Candidate Harvard Grad					.253 (.540)					.586 (.928)
Candidate Stanford Grad					-.324 (.670)					-.611 (1.401)
Candidate UChicago Grad					.582 (.688)					-.043 (1.485)
Candidate Yale Grad					.108 (.635)					.000 (.000)
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant		-3.623 (1.614)	-2.477 (1.971)	-2.812 (2.180)	-2.909 (2.199)	-.800 (.627)	-3.213 (1.669)	-2.337 (2.900)	-2.682 (3.054)	-2.496 (2.962)
Pseudo-R <sup>2</sup>	.109	.138	.223	.210	.214	.176	.225	.346	.342	.355
AIC	729.834	715.665	613.718	553.984	559.623	299.901	292.677	255.734	231.754	236.304
ll(model)	-341.917	-330.832	-273.859	-242.992	-241.812	-126.950	-119.339	-94.867	-82.877	-81.152
Observations	622	622	544	504	504	265	265	238	220	220

*Note: Table B4 reports results from logit models on if the candidate successfully secured a SCOTUS clerkship with two-way clustered robust standard errors by D.C. Circuit judge and year (results consistent in a linear probability model framework). Standard errors in parentheses. Models 1-5 are analyses conducted on the full data set and Models 6-10 are analyses conducted on the matched subsample that was created using a coarsened exact matching procedure.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE B7.** Descriptive statistics for total sponsorship received by participant gender and correlation matrix (Chapter 2 Appendix, Supplemental Survey Evidence)

	N	Mean	SD	Minimum	Maximum
Male participant	206	22.612	28.675	0	145
Female participant	192	20.292	38.240	0	260
Total	398	21.492	33.608	0	360
	1	2	3		
1. Male participant					
2. Number of prior supervisors	.145**				
3. Supervisor	.004	-.035			
4. Total sponsorship received	.035	.145**	.004		

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE B8.** Zero-inflated negative binomial model of the effect of participant gender and number of prior supervisors on *Total Sponsorship Received* (Chapter 2 Appendix, Supplemental Survey Evidence)

	Model 1 (Total Sponsorship Received)	Model 2 (Total Sponsorship Received)
Male participant	.087 (.108)	.027 (.108)
Number of prior supervisors		.017** (.006)
Supervisor participant		-.015 (.107)
Constant	3.144*** (.078)	3.037*** (.103)
Inflate		
Total sponsorship received	-44.704 (24107.220)	-37.706 (4189.542)
Constant	23.355 (17720.070)	19.857 (3079.742)
Alpha	.979 (.069)	.958 (.068)
AIC	2973.784	2968.828
ll(model)	-1481.842	-1477.414
Observations	398	398

Note: Standard errors included in parentheses. <sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**TABLE B9.** Zero-inflated negative binomial model of the effect of participant gender and number of prior supervisors on total sponsorship received for non-supervisors only (Chapter 2 Appendix, Supplemental Survey Evidence)

	Model 1 (Total Sponsorship Received)	Model 2 (Total Sponsorship Received)
Male participant	.318 <sup>†</sup> (.164)	.263 (.167)
Number of prior supervisors		.011 (.009)
Constant	3.045*** (.111)	2.972*** (.124)
Inflate		
Total sponsorship received	-38.568 (6557.002)	-44.568 (29386.86)
Constant	20.201 (4902.519)	23.2001 (21972.120)
Alpha	.112 (.099)	1.108 (.100)
AIC	1465.383	1465.451
ll(model)	-727.692	-726.726
Observations	199	199

Note: Standard errors included in parentheses. <sup>†</sup> $p \leq .10$ , \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

**Table B10.** Zero-inflated negative binomial model of the effect of participant gender and number of prior supervisors on total sponsorship received for supervisors only (Chapter 2 Appendix, Supplemental Survey Evidence)

	Model 1 (Total Sponsorship Received)	Model 2 (Total Sponsorship Received)
Male participant	-.137 (.141)	-.196 (.139)
Number of prior supervisors		.024** (.009)
Constant	3.257*** (.108)	3.099*** (.120)
Inflate		
Total sponsorship received	-39.351 (10619.980)	-41.604 (18642.450)
Constant	20.906 (7845.851)	22.034 (13775.050)
Alpha	.823 (.083)	.790 (.080)
AIC	1509.147	1502.829
ll(model)	-749.573	-745.415
Observations	199	199

Standard errors included in parentheses. <sup>†</sup> $p \leq .10$ , \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

**TABLE B11.** Sponsor-protégé (i.e., participant) pairings (Chapter 2 Appendix, Supplemental Survey Evidence)

	Male Participants	Female Participants	Total
Male Sponsor	162	79	241
Female Sponsor	44	113	157
Total	206	192	398

**TABLE B12.** Number of participants in supervisor and non-supervisor positions by sponsor gender (Chapter 2 Appendix, Supplemental Survey Evidence)

	Non-Supervisor Participants	Supervisor Participants	Total
Male Sponsor	106	135	241
Female Sponsor	93	64	157
Total	199	199	398

**TABLE B13.** Means and standard deviations of unstandardized variables (Chapter 2 Appendix, Additional Analyses for Study 1)

	Mean	SD
Perceived Sponsor Tenure (unstandardized)	4.015	.635
Perceived Sponsor Credibility (unstandardized)	4.368	.599

**TABLE B14.** Means of variables by condition, unstandardized (Chapter 2 Appendix, Additional Analyses for Study 1)

	Male Candidate	Female Candidate
<i>Perceived Sponsor Tenure (unstandardized)</i>		
Male Sponsor	3.988	3.994
Female Sponsor	3.915	4.060
<i>Perceived Sponsor Credibility (unstandardized)</i>		
Male Sponsor	4.383	4.384
Female Sponsor	4.263	4.336

**TABLE C1.** Legend for codes in supplementary evidence table (Chapter 3 Appendix)

Code	Label
1	Investment-oriented mental model (motivated by benefits to sponsor)
2	Duty-oriented mental model (motivated by responsibility to protégé)
3	High effort indicators in potential protégés
4	High potential indicators in potential protégés
5	Mixed incentives to provide sponsorship at ConsultCo (i.e., perceived cost of providing sponsorship)

*Note: Table C1 is a supplement to Table C2 and indicates what code corresponds to which theme and aspect of the theoretical framework.*

**TABLE C2.** Additional illustrative quotes as supporting qualitative evidence (not exhaustive of all coded statements, see table note for details) (Chapter 3 Appendix)

Gender	SubID	Codes	Quote
Male	1	1	You will still need to recruit and attract talent and help you support because it's all about leverage.
Male	1	1	It's a true win-win.
Male	1	1	I'm successful for making him successful then, if that makes sense
Male	2	1	The partner should like their teams and are loyal, and they push actively to get those promoted.
Male	2	1	So you can't invest in everybody... So I'm investing in this many people per year, and I understand that people will come and leave the firm so when someone I've invested in leaves the firm I'm sorry to see them go but if they're going to a great opportunity then I'm like fantastic, terrific, you know?
Male	2	1	Here's your next project. Stay close to me. I'm going to take care of your metrics. In return, I'm going to help you get better at this. In return you're going to work hard for me so it's going to be good for both of us... I'm trying to make it a small thing rather than a big thing and maximize the yield on my investment.
Male	9	1	Essentially your name is on that person... there's inherent self-interest in making sure that person is successful
Male	21	1	The more you develop these high performers, the more the contributors can contribute. And if you do that, you'll get rewarded yourself.
Male	22	1	I'm certainly a big believer we should foster top talent. They make us look better.
Male	22	1,5	We're collectively cultivating the careers of individuals in our practice and hold ourselves to those outcomes, I think you'd see a better performance in terms of career management. You get what you measure.
Male	22	1	You have that rapport. You have that connection. You do good work for them. They put you in positions to succeed. So... I'm a part of their measurement.
Female	5	2	So that was the first time I personally felt like I had a force [in reference to sponsorship].

Gender	SubID	Codes	Quote
Female	5	2	Definitely more the speaking up. I think I've always tried to give the opportunities, but I think the outright advocacy from me, again I always thought I shouldn't have said too much or something. And now I'm just going to speak up so I guess people can hear me.
Female	5	2	And I try to make sure I am exposing them and that I'm actually, while I believe I'm being fair, I'm also amplifying my support for them. Meaning I feel like I have a bigger voice at the table, if you will, and stronger support and demand a little more in order to help these folks along.
Female	5	2	I do realize in my role that I have sort of power to make people believe they can. Yes. I mean, I realize, no, I could do it more often. I think it's strange that I have that power. [in reference to sponsorship and mentorship]
Male	9	2	It's up to you to make sure they're doing the right things because you're the one who went out there and hired them...how do you really make sure that everyone's got someone looking out for them?
Female	14	2	I guess I identify with it only because I faced quite a bit of it when I was growing up in the firm. But I was lucky because I had partners who pretty much did the same thing for me. So I'm sort of paying it forward, if you will.
Male	16	2	So I think being willing to kind of let the leash go and actually give people the freedom to do things and let that person actually get the credit and the spotlight for doing it, I think is a good thing.
Female	25	2	Makes them even better. But then again, that requires this sense of partnership. Because your ability to let them go may mean that you take a temporary hit or that you trust that other people in the system will do the job they can do. So it's all by choice. We all have faith as partners.
Female	25	2	But if you do that, then I think you're in the wrong place. It's a value.
Male	2	3	I'm looking for intellectual curiosity, which is your willingness to work hard, desire to be better, and desire to develop inner competency.
Female	3	3	[junior employee] works her a** off and will do anything to be successful...I think she has what it takes to be a partner in the firm so I thought it would be a good investment
Female	3	3	Everyone is so busy right now and although career development is definitely a priority, I could not afford to put time in, and I don't put time in, outside of what is required for people who don't show up. That is a minimum requirement for me...I do put a lot of time into the people who show up, good people show up.
Female	6	3	Someone has to meet me halfway. But then I have a part as sort of the partner in the trenches with those individuals. And what am I doing about it as a servant leader, if you will, to do that?
Male	13	3	If you're willing to learn and you want to be mentored, I'm happy to do that. But you're gonna have to show me that that's worth my time and investment.
Female	14	3	[talking about a director, lower in rank]...is extremely hard working, raises his hand and extremely savvy from a social networking standpoint

Gender	SubID	Codes	Quote
Female	14	2,3	[talking about a director, lower in rank]...she's amazing...she faces pretty much the same challenges that I did when I was growing up in the firm as a woman, you know. So working with her...it has more to do with 'can I evangelize her and help her create her brand and sort of help her navigate the firm in a manner that makes her feel she's an equal.' Not that she isn't, but what makes her feel like that, too.
Female	14	3	...you own drive and ambition and desire to sort of move forward, to learn more. Not move forward in terms of the corporate ladder standpoint, but move forward in terms of growing yourself...trying to learn more and more, trying to understand more and more how you fit into the broader scheme of things and your own small ecosystem and all of that.
Female	14	3	...a large piece of it is from being collaborative and understanding that you're a sum of everybody around you. And yes, you do bring something to the table. But, you know, the team success is extremely important because if the team is successful, you're successful too.
Female	17	3	If they weren't showing an interest and the passion, then I wouldn't have spent me time.
Male	18	3	Something that is actually inherently coachable.
Male	21	3	Be passionate about what [they] want to achieve.
Female	25	3	So I think there's obviously work ethic. People with good work ethic are worth their weight in gold. And if you couple that with great attitude and great problem solving, oh my!
Female	25	3	I would say...attitude. So you want, and this is a huge one for me, because you want someone who has the right approach to leaning in and working hard and keeping an open mind in terms of, you know, where life will take them. And, you know, positivity...a can-do attitude can make all the difference in the world.
Male	27	3	I can only help you as much as you are willing to, want to be helped. And as long as you're putting in the effort, I'm more than happy to put in the extra effort to help you be successful
Male	1	4	...should make all the effort to build those relationships but the staff needs...it's a kind of push-pull like that the staffing needs to recognize that your longer-term, like you need people in your corner.
Male	1	4	In the technical, he passed, but he's not a superstar. But you know what he's really good at? The clients love him. Clients that love our people come back and give us lots of money.
Male	4	4	So this manager comes to me and he's like 'listen, there are clients in my group that are asking for this. The firm is building out its capability. How do I get the leadership that I report to support me in something that the firm wants to do and our clients ask?'. That's what I'm talking about [in reference of supporting someone who came to him]
Female	6	4	So for me, the individual who looks successful has to own that responsibility first.
Male	10	4	There is a set of core consulting skills that I think is very important for a consultant to know...How do you do a good analytical model? How do you sharply write your point of view so that your clients that are paying for your services understand that?



Gender	SubID	Codes	Quote
Male	10	4	Just a tremendously sharp individual, you know. And very eager, very enthusiastic.
Male	10	4	He was extremely good at the analytics and, you know, building and going and figuring out the data behind it.
Male	13	4	I make the same offer to every new person that I meet. And I tell them, 'hey, I'm happy to sit down with you for 15 minutes or half an hour or whatever time I have that particular day and answer any questions that you have about my perspectives or anything.'...Amazingly, very few people take me up on that. But there are always a few that take me up on it...Take me up on it immediately and come prepared...And they were insightful and clever.
Male	13	4	There are opportunities in life that you cannot prepare for, and you're either going to be able to take advantage of them or you're not based on how you respond in those moments. So people who get it are going to take advantage of that.
Male	13	4	...the one's that do take me up on it almost invariably are the ones that I find I can slap on any project, right, because they get it. We talk in consulting a lot about people who either get it or don't...And those are the ones who don't take opportunities like that. The ones who take opportunities like that are the ones who get it, understand how things are going to work.
Male	16	4	...if you measure it quantitatively, you know, good numbers. Or selling work was delivering work like if you looked on paper, you'd be like, well this guy is awesome.
Male	16	4	High performance from a client perspective where we see, you know, clients reacting really well to working with these people.
Male	18	4	Seeing the talent that he brought to the project, to not just projects but to his way of running the team, he's someone that is a sought-after people leader. The people like his coaching, his mentoring. I don't want to lose that for the firm for simple things that can be fixed. [referencing advocating for something a senior staff member needed]
Male	19	4	One of the most important things is to take personal ownership of their development...being your own advocate for your career and you need to speak up and ask for certain experiences that you want to get. Ask for the right training and learning and education and you know really push yourself to learn and get better...And you have to take ownership and speak up for yourself. Otherwise, you know, it's going to be difficult.
Male	19	4	You know, speaking up for your own development and everything else, if you have that network of people that you can go to, you can kind of get whatever you want out of it.
Male	19	4	When I talk about speaking up, this isn't just about asking for development. It's also the people who say, 'hey I'm the best, the greatest. You know, I should be promoted fast,' and those people tend to get promoted the most quick, is what I've seen.
Male	19	4	There's one recently, now a senior manager, was a manager last year. One perfect example of a person who is relatively quiet and super smart and just a great behind-the-scenes guy...But you know I had seen that this person is very talented.
Male	20	4	You could see it, you know, he had all the traits of...four of the five traits of a partner.

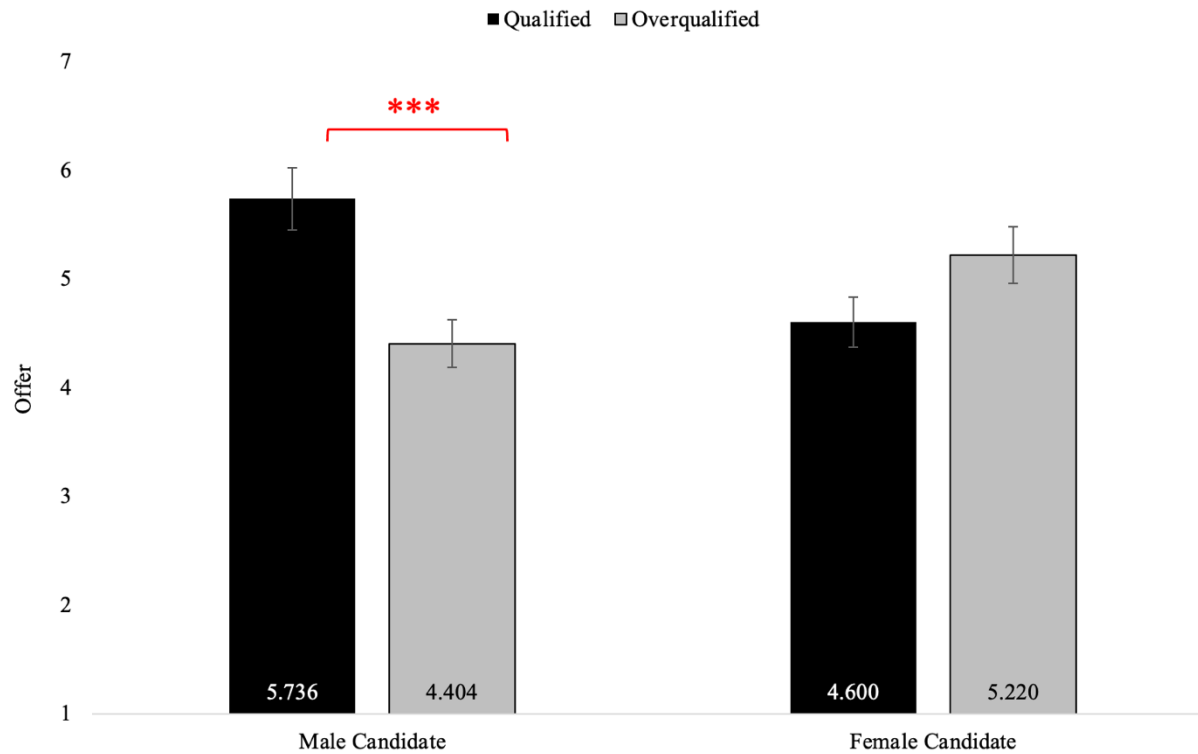
Gender	SubID	Codes	Quote
Male	21	4	I've introduced them to the senior partners and I've taken the backseat and said, you go do that conversation. You know, ahead of the conversation, I said 'hey there's this individual coming to talk to you. Here's what they're doing. Here's the background. Here's what I think of the individual. You should come to your own conclusions.' But you know, I think this individual's got tremendous potential. You know, so I've, in the background, laid the foundation to make them successful.
Male	4	5	My observation is the formalized mechanisms that the firm has to help people find their place, all operate under the assumption that partners are willing and proactively helping that happen, and that's just not an accurate assumption.
Male	4	5	I can't emphasize this enough, it's not just that they're not rewarded for doing it, but that what the firm is currently doing now is pursuing a very aggressive evolutionary strategy. So everyday they're getting new...metrics, objectives, that they have to fulfill to help the firm do that. And none of those things have to do with the problem we're talking about. So each of these leaders has a heavier burden of their day to day work than they've every had in their career at [firm]. And all of those things are pushing them to look in a different direction than what you and I are talking about.
Female	5	5	I have seen, and heard rumors of like, 'if you don't work solely for this partner, you're not going to get that person's support for getting promoted.' And any belong to that area or part. You know, like if you go off and try to diversify, you will incur disfavor.
Female	6	5	I always believe we're capable...but sometimes we as an enterprise, I don't know if we kill it or stunt it because we want to win the short term battle so we reward the short term behavior. The next thing you know then, lost the longer term, the bigger, the longer term win.
Male	16	5	I mean as a partner my primary measurement mechanisms are the amount of revenue that I bring in...and there isn't really the right people measurement mechanisms embedded in there right now.
Male	18	5	Like I feel like we were just making so much more because we've shrunk the amount of time we're spending with our people and focusing in only on how we generate revenue and profit.
Female	23	5	We put these incentive around teaming and we try all these things. But, you know, you could have one of the best and brightest people that should be put on a piece of work and they won't because they're not in that person's particular like go-to market team. But it's good for this person, right? It gives them diversity [of experience]. It allows them to expand what they do. We should be tracking and cultivating these people, but we don't because our culture stands in the way.
Female	23	5	The number one thing is your personal revenue. So a couple of years ago, we said, oh no, we're going to have teams...It's not going to be partner [only] team awards. It's going to include managing directors and directors and true team awards. Ok. I think that's interesting. But for our firm to be successful and grow, it's not just about the team around you. And so we still are not incentivizing people and we're not making it a requirement of our leaders.

Gender	SubID	Codes	Quote
Female	23	5	We talk about this every year. We're going to change the way we measure people and ourselves. And we make tweaks. We make tweaks around the edges, but we never get to the heart of what the issue is, which is it's still all about, you know, an individual person and how they maximize their revenue. So then they pick people around them that they know they like and they don't take the chance of unleashing the power of everybody else.
Female	25	5	I think short term revenue incentives detract not just from investing in junior people, but more importantly detract from cooperation, collaboration, partners.
Male	27	5	I mean, people are definitely recognized, not economically, but for being great leaders and great developers of talent. I think people do get penalized for being on the opposite end of that spectrum. But there is a bunch of people that are in between. And, you know, on the lower end or the higher end that don't really feel any economic implications for helping people or not. But I don't think people take that, at least myself and other partners on my team, feel that all that matters is financial metrics. I think like that is probably one of the most important factors.
Male	28	5	You know, the number one way we identify talent and reward and motivate people is through career advancement and bonuses and raises. But now pay raises is somewhat taken out of the equation. They are somewhat automatic based on your level.
Male	28	5	Partners don't feel accountable for the recruitment, development, and advancement of the best and brightest people...it's like it's always someone else's problem...But partners need to be trained and measured on doing the right things for our people, in the context of the greater good for the practice and the firm.
Male	30	5	They were never trained to do it. And the firm doesn't expect them, and they're not evaluated on it. So guess what? It's not gonna happen. I mean, unless you're personally driven to that.
Male	1	1,2	If you think about all the sacrifices [junior employee] made to me...I just felt like I have to do everything in my power to make him be successful in what he was trying to achieve at the firm.
Male	28	1,5	I don't know the number, but 60 to 70 percent of the people wind up working for a small group and then don't get the diverse experience of working for a broader group and then therefore you don't get the true benefit of the diverse experience and learnings from broader people. And then there's not a fair scorecard. Because everyone has their own little teams that are under them, and you know, there are pluses and minuses to that. If you have a team that you know is working for you all the time, you invest in them in a greater way but I don't think we are always fairly identifying the right people for advancement.
Female	25	2,5	You know, the responsible partner also allows for a variety of experiences, which means a variety of partners to work with. Partners love to hoard resources, sometimes to the detriment of the resource...[you] ensure that they get a wide variety of exposure to different styles, skills, and approaches so that they can become more well-rounded.
Female	5	3,4	First, it takes a lot of initiative. So willingness to roll up your sleeves and get things done. And kind of beg for forgiveness rather than seek permission. So don't wait for someone to tell you to do everything you need to do.
Male	8	3,4	Dedication and hard work. Someone who is not making other people have to carry the weight of what they should be working on...you just need really smart, hardworking people to collaborate.

Gender	SubID	Codes	Quote
Male	10	3,4	...about half of what I look for is in a strong individual with a good trajectory...[and] with someone I believe is passionate about the consulting business and is passionate about helping clients.
Male	28	3,4	I would say ask lots of questions. I'd say be entrepreneurial and innovative. Work hard, work smart. Have a point of view and be able to share that point of view.

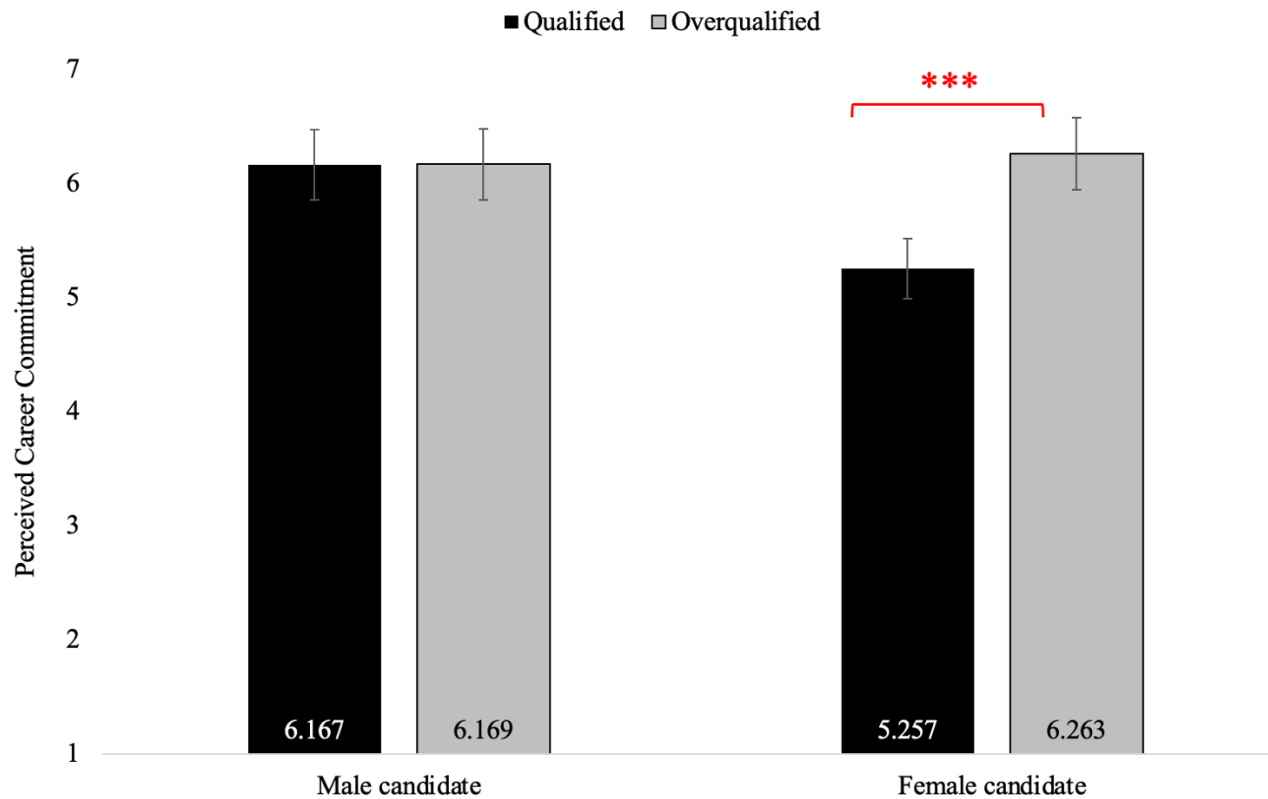
*Note: Table A2 includes additional illustrative quotes by ID and theme. This is not an exhaustive accounting of all coded statements and is intended to be a supplement to the evidence that is presented in the main manuscript. Select quotes from Participants 7, 26, and 32 are not included here or in the main manuscript due to their expressed preference for direct quotes not being used. Codes from these interviews were still used for analysis and development of the theoretical framework.*

## Appendix Figures

**FIGURE A1.** The effect of candidate gender and qualification level on *offer* (Chapter 1 Appendix, Pilot Study)

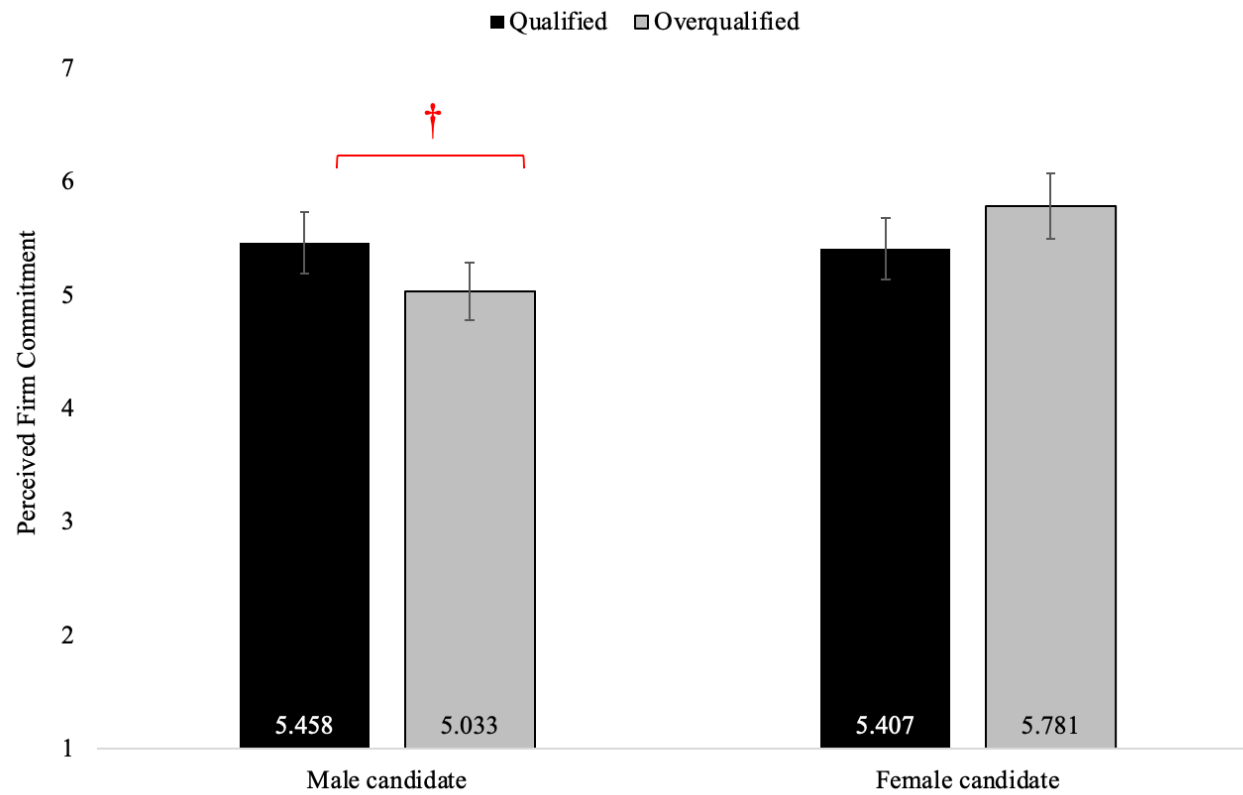
*Note: Figure A1 illustrates the candidate gender  $\times$  qualification level two-way interaction on the likelihood the candidate will receive a job offer. The asterisks indicate the significance level of the Bonferroni-adjusted contrast test, which found overqualified male candidates were less likely to receive a job offer than qualified male candidates.*

$^{\dagger}p < .10$   $^*p < .05$   $^{**}p < .01$   $^{***}p < .001$

**FIGURE A2.** The effect of candidate gender and qualification level on *Perceived Career Commitment* (Chapter 1 Appendix, Study 2 replication)

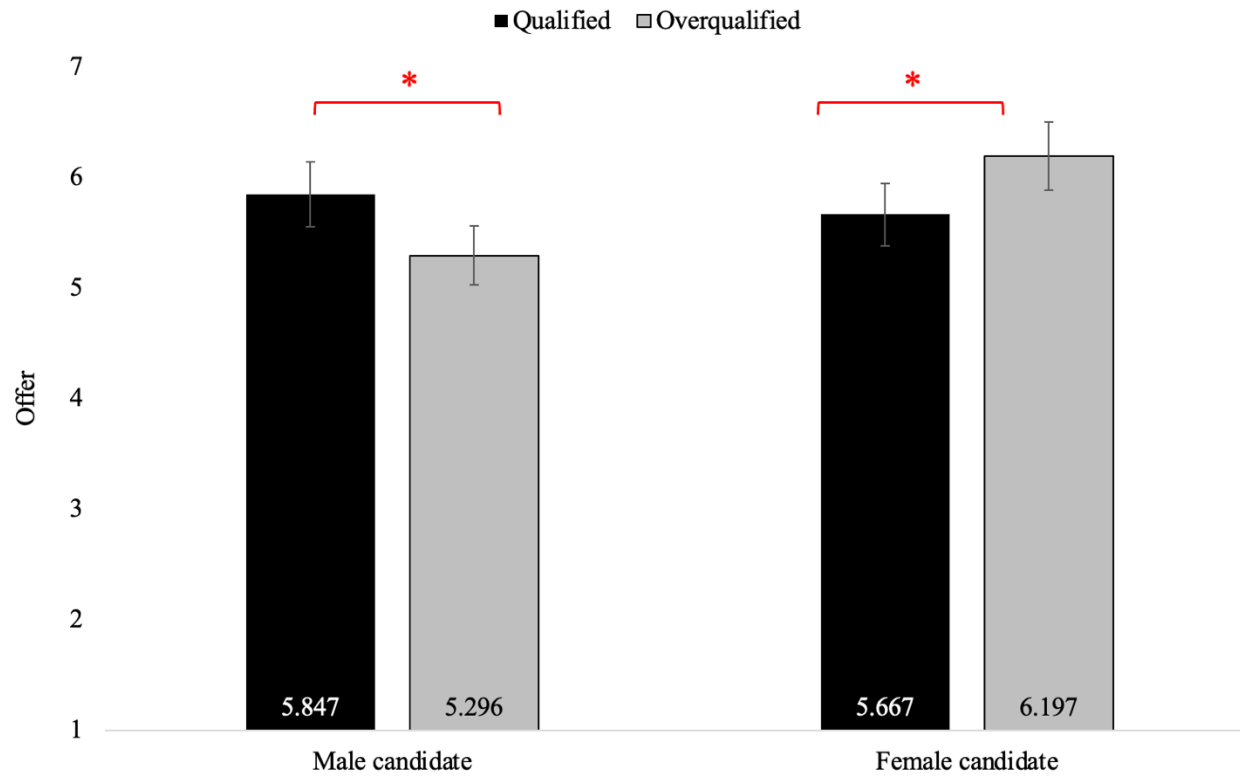
Note: Figure A2 illustrates the candidate gender  $\times$  qualification level two-way interaction on perceptions of the candidate's career commitment. The asterisks indicate the significance level of a Bonferroni-adjusted contrast test, which found overqualified female candidates were perceived to be more committed to their careers than qualified female candidates.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A3.** The effect of candidate gender and qualification level on *Perceived Firm Commitment* (Chapter 1 Appendix, Study 2 replication)

Note: Figure A3 illustrates the candidate gender  $\times$  qualification level two-way interaction on perceptions of the candidate's commitment to the prospective firm. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which showed overqualified male candidates were perceived to be less committed to the prospective firm than qualified male candidates.

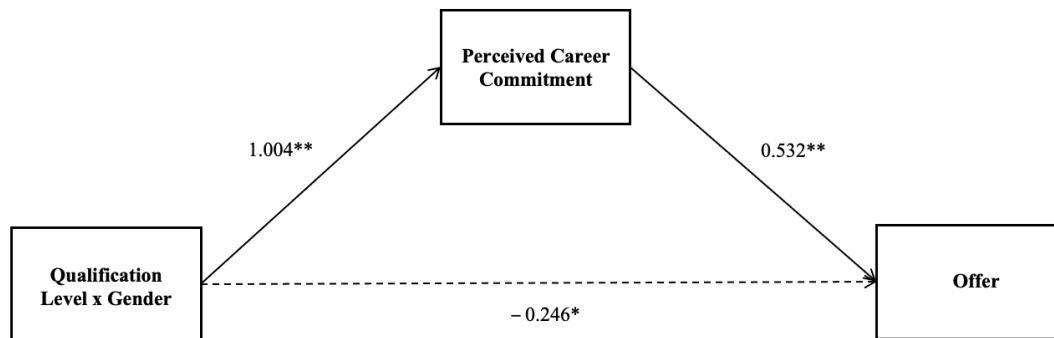
† $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A4.** The effect of candidate gender and qualification level on *Offer* (Chapter 1 Appendix, Study 2 replication)

*Note: Figure A4 illustrates the candidate gender  $\times$  qualification level two-way interaction on the likelihood the candidate will receive a job offer. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found that overqualified male candidates were less likely to receive job offers compared to qualified male candidates. But the opposite was true of female candidates.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

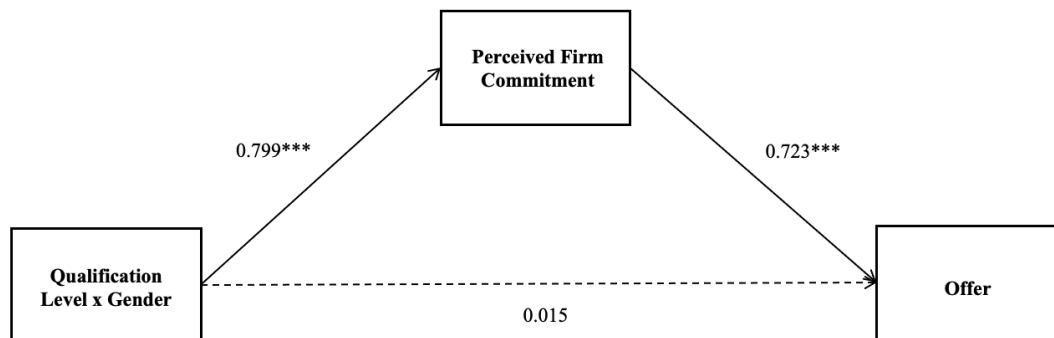


**FIGURE A5.** Moderated mediation models (Chapter 1 Appendix, Study 2 Replication)

*Index of Moderated Mediation:  $b = 0.534$ , 95% CI: {0.277, 0.860}*

*Indirect effect for female candidates:  $b = 0.535$ , 95% CI: {0.323, 0.771}*

*Indirect effect for male candidates: ns*



*Index of Moderated Mediation:  $b = 0.577$ , 95% CI: {0.225, 0.971}*

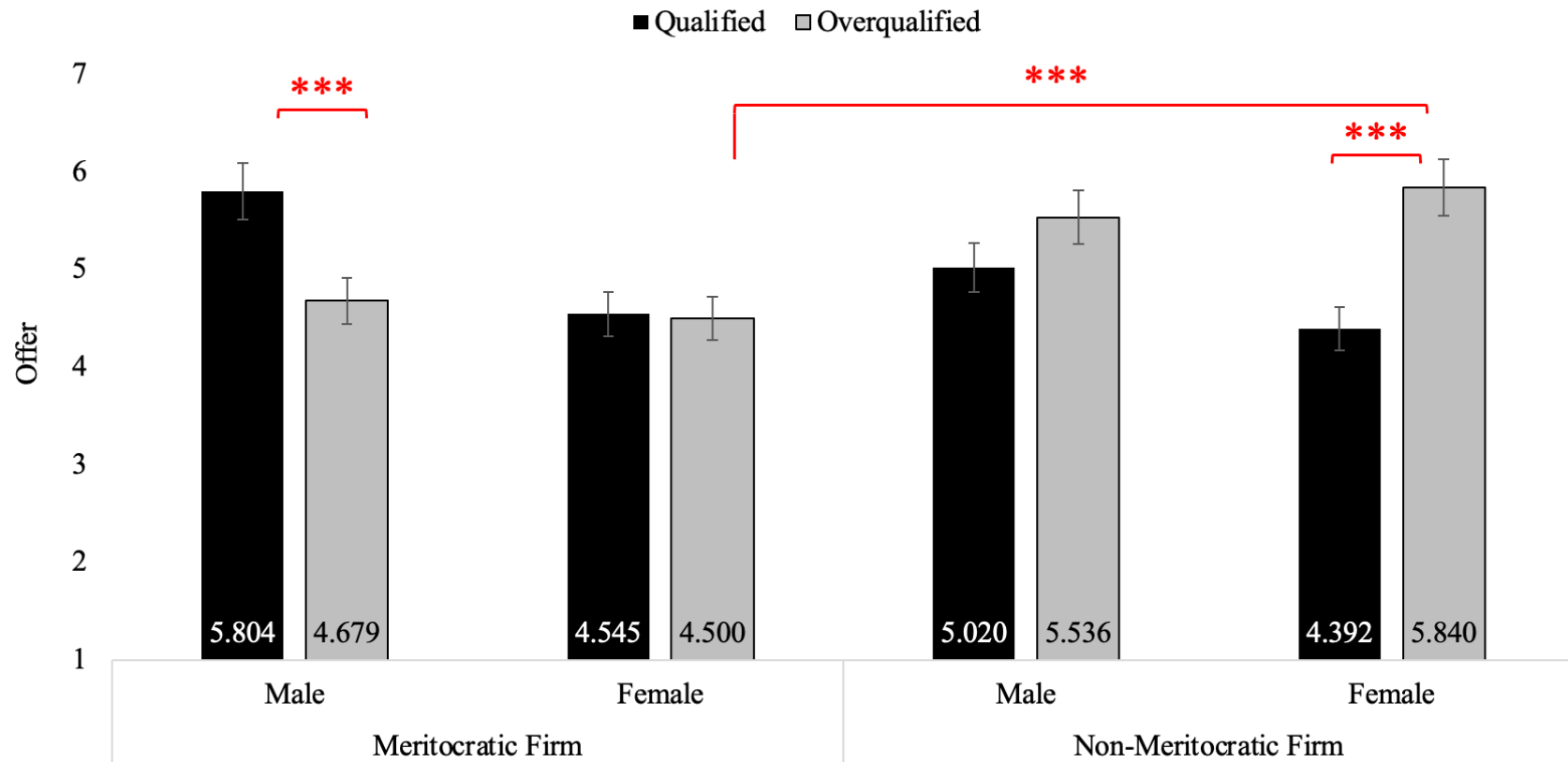
*Indirect effect for female candidates:  $b = 0.270$ , 95% CI: {0.102, 0.441}*

*Indirect effect for male candidates:  $b = -0.308$ , 95% CI: {-0.641, -0.013}*

*Note: Figure A5 illustrates the moderated mediation models conducted with the SPSS macro PROCESS in Study 2's replication. The models show how perceptions of firm and career commitment explain the interactive effect of candidate gender and qualification level on likelihood to receive a job offer.*

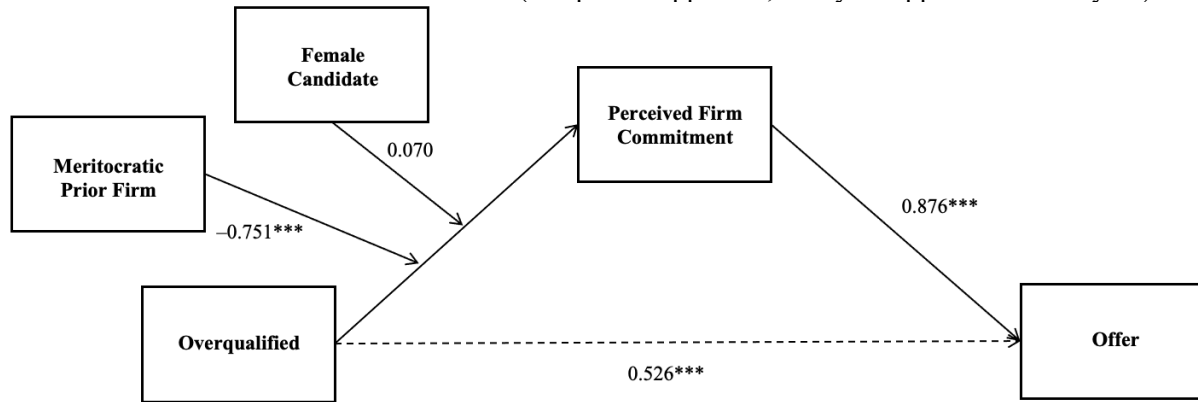
*† $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$*

**FIGURE A6.** The effect of candidate gender, qualification level, and prior firm meritocracy on *Offer* (Chapter 1 Appendix, Study 3 supplemental analyses)



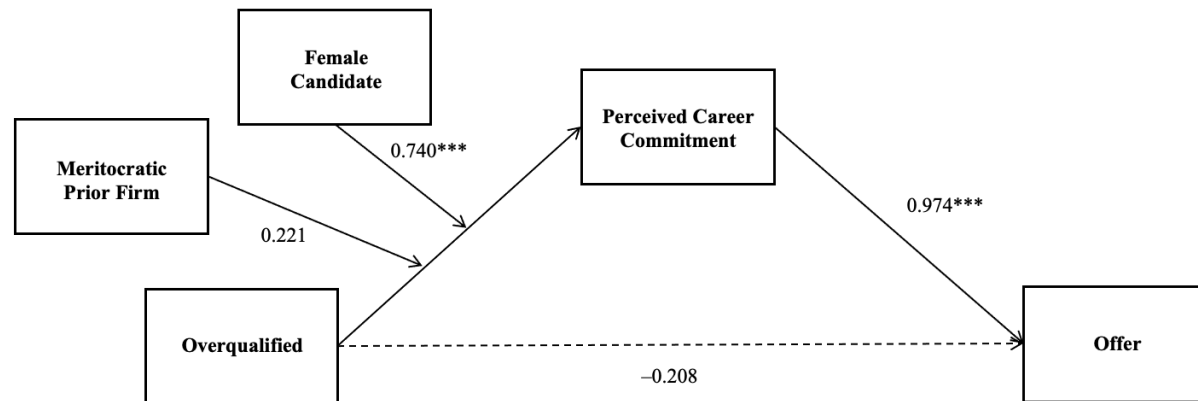
*Note: Figure A6 shows the effects of candidate gender, qualification level, and prior firm meritocracy on the candidate's likelihood to receive a job offer. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found that when leaving meritocratic prior firms, overqualified male candidates were less likely to receive job offers than qualified male candidates. Overqualified female candidates were more likely to receive job offers than qualified female candidates leaving non-meritocratic firms and overqualified female candidates leaving meritocratic firms.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A7.** Moderated mediation models (Chapter 1 Appendix, Study 3 supplemental analyses)

Index of Partial Moderated Mediation via Candidate Gender: ns

Index of Partial Moderated Mediation via Prior Firm Meritocracy:  $b = -0.658$ , 95% CI:  $\{-1.005, -0.327\}$



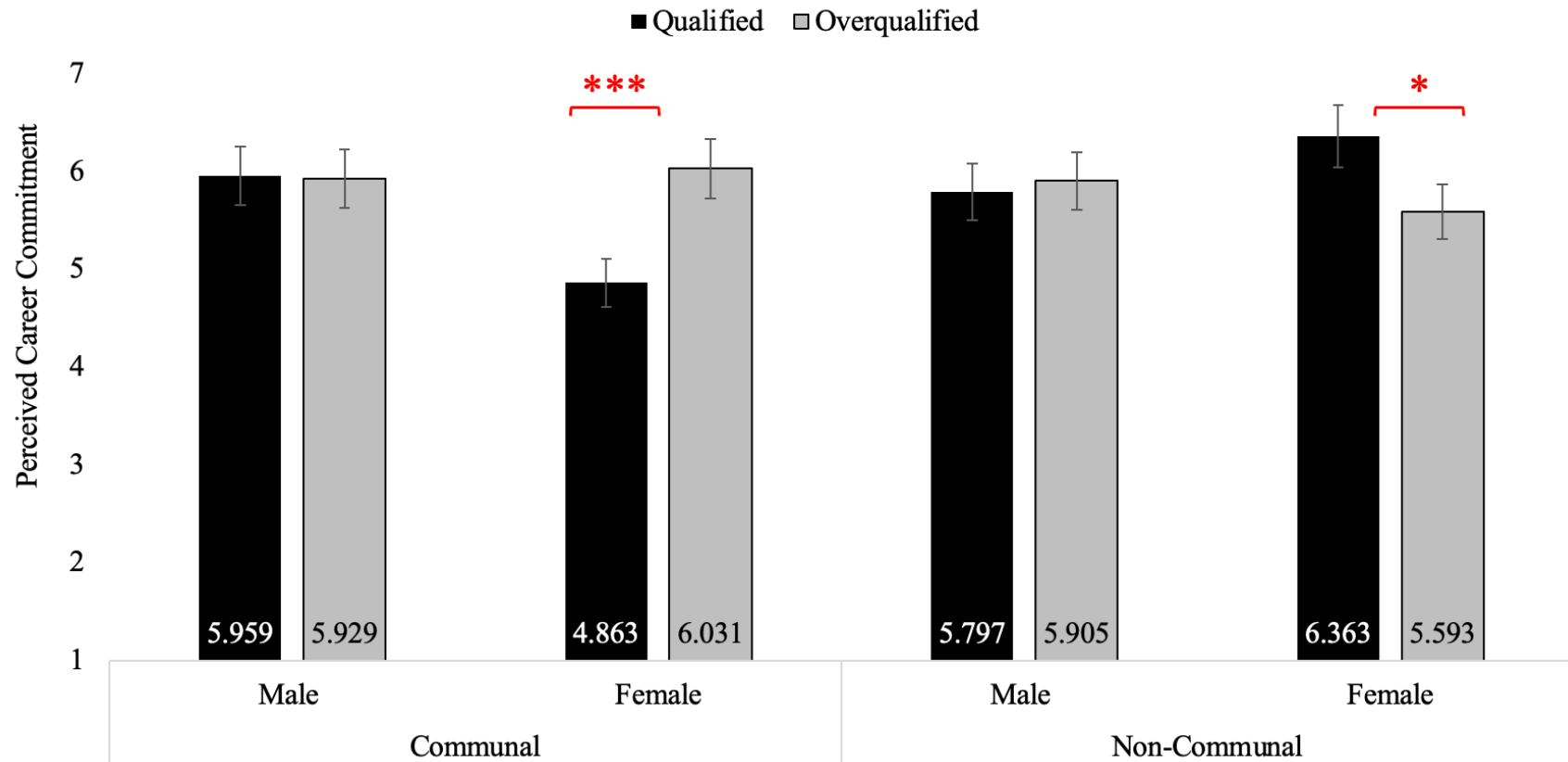
Index of Partial Moderated Mediation via Candidate Gender:  $b = 0.721$ , 95% CI:  $\{0.394, 1.061\}$

Index of Partial Moderated Mediation via Prior Firm Meritocracy: ns

Note: Figure A7 shows the moderated mediation analyses conducted using the SPSS macro PROCESS for Study 3. These models show how perceptions of firm and career commitment explain the effects of candidate gender, qualification level, and prior firm meritocracy on likelihood the candidate will receive a job offer.

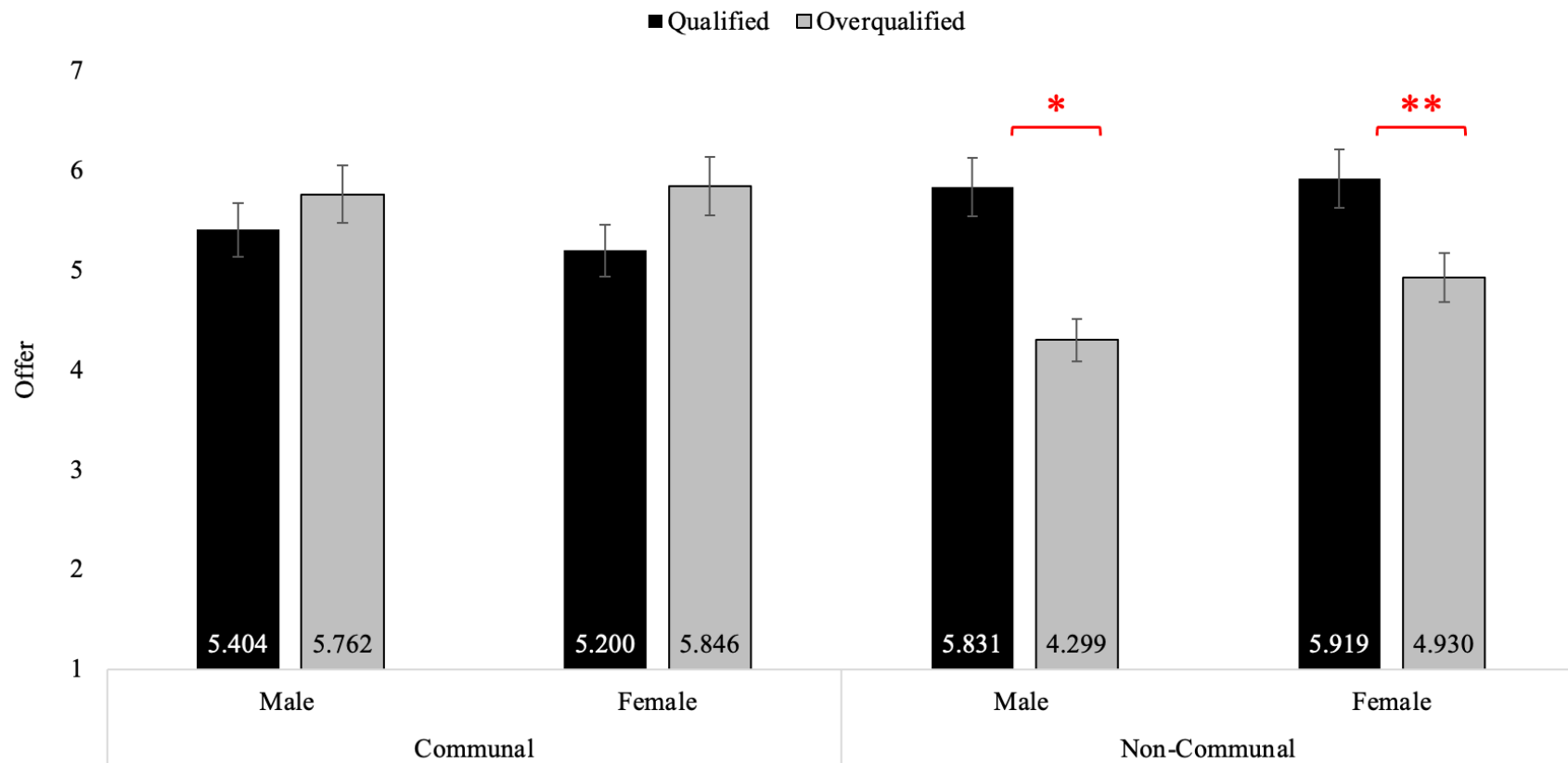
<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A8.** The effect of candidate gender, qualification level, and communality on *Perceived Career Commitment* (Chapter 1 Appendix, Study 4 supplemental analyses)



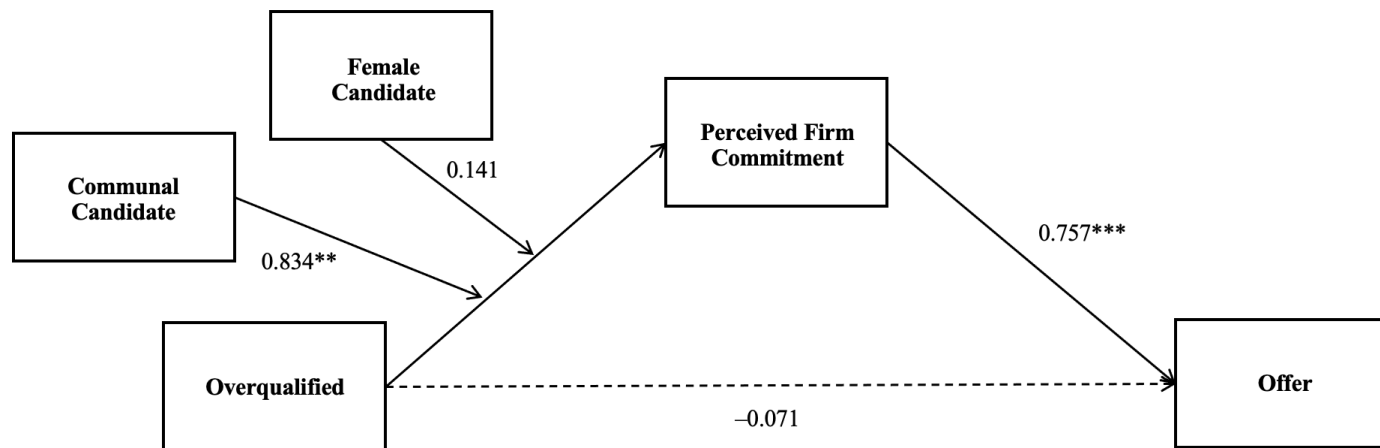
Note: Figure A8 shows the effects of candidate gender, qualification level, and communality on perceptions of career commitment. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found communal overqualified female candidates were perceived to be more committed to their careers than communal qualified candidates. The opposite was true of non-communal female candidates.

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A9.** The effect of candidate gender, qualification level, and communality on *Offer* (Chapter 1 Appendix, Study 4 supplemental analyses)

*Note: Figure A9 shows the effect of candidate gender, qualification level, and communality on the candidate's likelihood to receive a job offer. The asterisks indicate the significance level of Bonferroni-adjusted contrast tests, which found that the overqualification penalty persisted among non-communal candidates.*

<sup>†</sup> $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**FIGURE A10.** Moderated mediation analyses (Chapter 1 Appendix, Study 4 supplemental analyses)

*Index of Partial Moderated Mediation via Candidate Gender: ns*

*Index of Partial Moderated Mediation via Communal Candidate:  $b = 0.631$ , 95% CI: {0.240, 1.055}*

*Note: Figure A10 shows the moderated mediation model conducted with the SPSS macro PROCESS in Study 4. The model shows how perceptions of firm commitment explains the interactive effects of candidate gender, qualification level, and communality on the likelihood of the candidate receiving a job offer.*

*† $p < .10$  \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$*

**FIGURE A11.** Sample profile of qualified female job candidate**Sarah Anderson**

Associate Analyst, Investment Banking Division

Greater New York City Area



Merrill Lynch



Cornell University

**Experience****Associate Analyst, Investment Banking Division**

Merrill Lynch

Jun 2015 – Present · 5 years 4 months

Greater New York City Area

- Created LBO financing model to support \$1.5 million M&A transaction
- Assesses investment opportunities and builds pitch-books supporting North American deals
- Participated in all stages of capital raising process of \$1 million in common stock, preferred stock, and bond offerings

**Summer Intern**

UBS

Jun 2014 – Aug 2014 · 3 months

Greater New York City Area

- Performed financial analysis via pro forma cash flow models
- Participated in all stages of capital raising process for \$1 million in common stock, preferred stock, and bond offerings

**Education****Cornell University**

Bachelor of Science - BS · Applied Economics and Management

2011 – 2015

**FIGURE A12.** Sample recommendation for communal job candidate**Featured Strengths & Skills**

Strong collaborator

Cooperative

Supportive

**Recommendations**

“ Thomas is an exceptional colleague who has continued to demonstrate his commitment to teamwork and collaborative work. He is a thoughtful and considerate employee who has thrived at our firm.

**FIGURE A13.** Sample recommendation for non-communal job candidate**Featured Strengths & Skills**

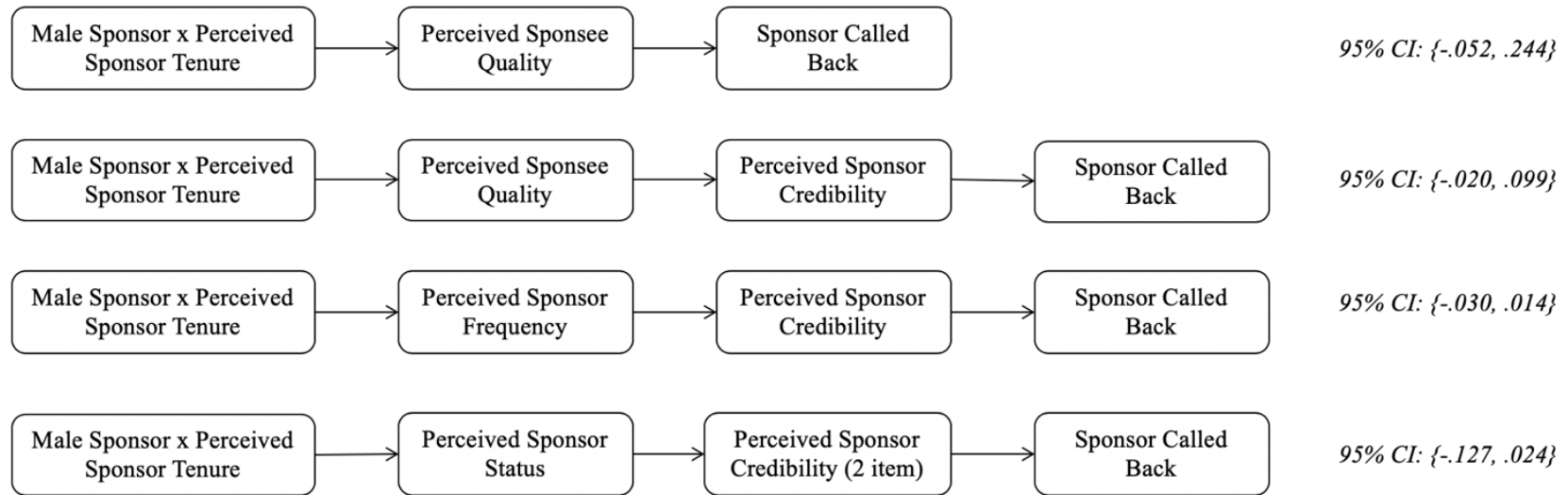
Independent

Assertive

Self-starter

**Recommendations**

“ Thomas is an exceptional colleague who has continued to demonstrate his ability to rise to a challenge. He is a talented and ambitious individual who is determined to succeed. Thomas has really demonstrated his ability to thrive in a highly competitive environment.

**FIGURE B1.** Alternative non-significant mediation models (Chapter 2 Appendix, Study 1)

*Note: Figure B1 displays results from several moderated mediation models that were estimated using Preacher and Hayes' process of estimating confidence intervals with 5,000 bootstrapped samples in the program PROCESS. All moderated mediation models reported above were non-significant.*

*\*95% CI does not include zero*