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GENDER AND NETWORKING: BUILDING AND BENEFITING FROM HIGH STATUS TIES IN THE WORKPLACE

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GENDER AND NETWORKING: BUILDING AND BENEFITING FROM HIGH STATUS TIES IN THE WORKPLACE

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
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ABSTRACT

GENDER AND NETWORKING: BUILDING AND BENEFITING FROM HIGH STATUS TIES IN THE WORKPLACE

While organizations have significantly reduced the overt and intentional forms of sex discrimination that impeded women's careers in the past, a great deal of research suggests women continue to face informal barriers in the workplace. One such arena in which women tend to be disadvantaged is in their workplace networks. In many ways, men and women have similar networks, yet women are less likely than their male counterparts to have personal relationships with high status coworkers. Scholars have long suggested that these strategic connections are valuable and may be especially beneficial to or necessary for women. Networking has long been touted as one way women can overcome workplace disadvantage by strategically developing and/or capitalizing on such networks, which can enable their success and satisfaction at work. However, networking is a considerable investment. Indeed, networking has been called women's third shift, after work and family responsibilities. As such, it is vital that we understand how women and men can best capitalize on their investments in networking. This research seeks to add to our scholarly understanding by examining the extent to which men and women can translate their networking behaviors into high status connections and capitalize on those connections to enhance their performance and job satisfaction. Results suggest networking behaviors enable men and women to have friends with higher informal status. However, while

men's networking behaviors are related to having higher ranking (formal status) friends, women's networking behaviors are related to having lower ranking friends. Post-hoc analyses begin to explore the possibility that these gender differences are due to choices made by or others' reactions to male and female networkers. Results also distinguish between employees' gender and legitimacy to shed light on how and why men and women can develop and capitalize on high status connections, providing practical implications for employees and organizations seeking to intervene to enable women and men to develop high status connections. This research uses multimethod data to illuminate ways in which both women and men can translate their networking behaviors into high status connections, workplace performance, and job satisfaction.

Keywords: Gender, Networking, Status Ties in the Workplace

Meredith Woehler

August 2, 2017

Date

GENDER AND NETWORKING: BUILDING AND BENEFITING FROM HIGH STATUS TIES IN THE WORKPLACE

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CHAPTER ONE: INTRODUCTION

While organizations have significantly reduced the overt and intentional forms of sex discrimination that impeded women's careers in the past (Sturn, 2001), a great deal of research suggests women continue to face informal barriers in the workplace. One such arena in which women tend to be disadvantaged is in their workplace networks. In many ways, men and women build similar networks. For example, research shows that men and women tend to have similarly open networks of structural holes, hierarchical networks built around one's boss, and networks built around contacts beyond the boss (Burt, 1998: 27). Additionally, research shows no difference in the number of friends, amount of time spent with friends (Caldwell & Peplau, 1982), or the size of discussion networks amongst men and women (Fischer, 1982; Marsden, 1987). However, large-scale survey and interview data have shown that women often have more difficulty than men in developing certain strategic network connections, especially personal relationships with high status coworkers (Hewlett, Peraino, Sherbin, & Sumberg, 2010).

Scholars have long recognized the value of having high status connections. Indeed, Podolny called this strategy of cultivating high status connections an 'aristocrat strategy' (Podolny, 1994: 482). Status is one of the most important bases of social hierarchy, which confers power and influence over others, providing advantage to employees with higher status friends. Status can be conferred formally: "Within the boundaries of the organization, greater value inheres in positions of higher formal rank" (Magee & Galinsky, 2008: 355). Status can also be established informally (Blau & Scott, 1962), routed in others' deference to an individual (Magee & Galinsky, 2008). Individuals with high formal and informal status can provide their friends with benefits by acting as pipes or conduits of the advantageous resources they have access to (Podolny, 1994). Specifically, employees' high status friends have superior access to both tangible resources – such as superior physical capital (e.g., equipment and facilities), assistance (Merton, 1988), financial capital (Stuart, Hoang, & Hybels, 1999), and other coveted resources

(Stuart & Ding, 2006) – and intangible resources – such as the charisma (Merton, 1968, 1988), confidence (Frank 1985), and self-efficacy (Podsakoff & Farh, 1989; Tay, Ang, & Van Dyne, 2006) needed to drive and coordinate success in organizations. High status friends can also provide benefits by acting as prisms or signals of an actor's quality (Podolny, 1994), enabling employees to benefit by 'basking in the reflected glory' of their high status friends, even if they have done nothing to bring about their friends' status and success. As Cialdini and his colleagues explained, "people make known their non-instrumental connections with positive sources because they understand that observers to these connections tend to evaluated connected objects similarly" (Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976: 374).

As the decision-makers and influencers within organizations, these high status contacts have been found to provide their personal connections with career opportunities, feedback, advice, mentorship, advocacy, and even sponsorship (Thomas & Kram, 1998; Higgins & Kram, 2001). However, women often struggle to develop personal relationships with those with high status relative to their male counterparts. For example, those with high formal status provide their mentors and sponsors with the most benefits (Carter & Silva, 2010; Ibarra, Carter, & Silva, 2010), but women tend to have lower status mentors than men, who have been found to provide them with less visible support and overall fewer benefits (Carter & Silva, 2010; Lang, 2011). Scholars have long suggested that women connect to fewer high status coworkers because positions with the highest formal and informal status within organizations are still overwhelmingly held by men (European Commission, 2012; Gorman & Kmec, 2009; U.S. Bureau of Labor Statistics, 2015). Specifically, women are less likely to connect with men, including high status men, due to the natural human tendency for men and women to build relationships with those of the same gender (called *homophily*, Ridgeway & Smith-Lovin, 1999; Rogers & Kincaid, 1981), misunderstandings and tensions in cross-gender relationships (Tannen, 1994), concerns that third parties may perceive close personal relationships between men and women at work as improprietous (Hewlett

et al., 2010), and gender stereotypes that suggest that women are less desirable contacts than their male counterparts (Wellington, 2001; Wood & Karten, 1986).

These factors result in women developing less effective networks than their male counterparts: friendship networks that are homophilous with regard to gender, and that also include lower status contacts than men's networks (Ibarra, 1992; Ridgeway & Smith-Lovin, 1999). This research explores the extent to which women can employ networking behaviors to develop friendships with those with high formal and informal status, which they are unlikely to have without such intentional efforts. Additionally, this research seeks to disentangle these potential mechanisms of women's network disadvantage – the gender and status of men and women's network contacts – to explore the impact women and men's networking behaviors have on their friendships with high status contacts and those of the opposite gender. This is especially important because scholars have suggested that women may also develop fewer high status male and female contacts. Research has found that unequal hierarchical gender distributions create interpersonal dynamics in which women are less likely to identify with one another or "perceive senior women as role models with legitimate authority" (Ely, 1994: 203), making women less likely to seek out relationships with high status women. As such, it is of particular importance to understand how women (and men) can develop relationships with high status and cross-gender coworkers.

Networking has long been considered one of the most crucial ways women can break through the glass ceiling (Baker, 1994; Catalyst, 1993, 1999; Wellington & Catalyst, 2001), including a potential solution for women to develop beneficial connections with their high status and opposite-gender coworkers (Hewlett et al., 2010). I define networking behaviors as actions intended to develop, change, or leverage interpersonal relationships with potentially instrumental contacts. Specifically, women may be able to overcome the disadvantages that would result from the lower status networks they are likely to develop by engaging in networking behaviors that enable them to develop high status friendships. While there is evidence to suggest networking

provides employees with advantage broadly, organizational scholars have very little evidence regarding how it provides benefits. While, this literature has come to theoretical consensus that networking provides advantage because it enables individuals to develop advantageous networks and provides beneficial resources (for a review, see Porter & Woo, 2015), scholars have only recently begun examining these claims empirically (see Table 1.1). Specifically, networking behaviors have been found to enable individuals to develop new relationships (Vissa, 2012), larger networks (Van Hoye, van Hooft, & Lievens, 2009; Wolff & Moser, 2006), stronger relationships (Langford, 2000; Van Hoye et al., 2009), and more diverse networks (e.g., network range; Shipilov, Labianca, Kalnysh, & Kalnysh, 2014). However, none of the studies examining the process by which men and women translate their networking behaviors into networks of relationships have investigated gender differences. Furthermore, while we know that women are unlikely to develop high status connections based on the natural human tendency for homophily and other organizational constraints and yet women may especially need such high status connection, the extent to which women can intentionally employ networking behaviors that will enable women them to develop relationships with high status connections is still unknown.

This study investigates the following research question: To what extent can women (and men) employ networking behaviors that enable them to develop and capitalize on high status and cross-gender relationships? In order to provide important theoretical and practical insights when investigating this line of inquiry, it is vital to distinguishing between men and women's ability to translate their networking behaviors into high status connections, as well as cross-gender connections. The relative representation of men and women along status levels has been changing and continues to change (Pew Research Center, 2015), underscoring the importance of distinguishing between the status and gender of employees' connections. As this pattern continues, the need to distinguish between the degree to which men and women are able to translate their networking behaviors into relationships with employees of high status, as well as

and separate from relationships with employees of their own and the opposite gender only increases.

Another important contribution of this paper is that it disentangles the impact of gender and legitimacy upon the process by which employees translate their networking behaviors into workplace networks and capitalize on those networks. Legitimacy manifests in the approval and esteem of others (Hogue, Yoder, & Ludwig, 2002; Ridgeway & Berger, 1986; Zelditch & Walker, 1984). Vast organizational research has suggested that gender impacts the process by which employees gain and benefit from their workplace networks, due to, for instance, gender stereotypes, the status assigned to each gender (i.e., status characteristics), and tendencies for homophily (cf., Ridgeway & Smith-Lovin, 1999). Some networks scholars have suggested that these differences in the development or benefits of networks for men and women are driven by a lack of legitimacy (sometimes called credibility; Cabrera & Thomas-Hunt, 2007), theorizing and interpreting gender differences as being gender-neutral (i.e., legitimacy and not gender is driving differences; see for example, Burt, 1998). Such scholars have theorized that women need to first gain legitimacy in order to develop advantageous networks, such as high formal and informal status connections. For example, prior research has suggested that women need to develop personal relationships with high status mentors and sponsors in order to break through the glass ceiling (Carter & Silva, 2010; Lang, 2011), but scholars have theorized that doing so likely requires them to have legitimacy (Cabrera & Thomas-Hunt, 2007). Other such scholars have suggested that women need to first gain legitimacy to benefit from their own advantageous networks, such as high formal and informal status connections. For example, Burt (1998) has proposed that women need to gain legitimacy – such as by gaining an influential sponsor with a network rich in structural holes – in order to then be able to rely upon their own advantageous networks for promotions. Such gender-neutral theorizing or interpreting of results implicitly or explicitly proposes that if women can simply gain legitimacy, their disadvantage in developing or benefiting from such relationships will dissipate.

A final line of theorizing suggests that *both* gender and legitimacy impact the process by which employees' gain and benefit from their workplace relationships (Hogue et al., 2002; Ridgeway & Berger, 1986). Thus, scholars lack consensus with regard to whether and how gender only, legitimacy only, or both gender and legitimacy impact the extent to which employees can translate their networking behaviors into and benefit from high status and cross-gender connections. By disentangling the impact of gender and legitimacy on the relationship between networking behaviors and high status and gender-homophilous friendship networks, this research adds to our scholarly understanding of the ways in which men and women can impact the networks they develop through their intentional efforts. Differentiating between and accounting for both gender and legitimacy not only enables me to test and refine widely accepted theorizing, it also enables organizational scholars to refine the practical advice and organizational interventions we provide to help women and anyone without legitimacy to overcome disadvantages by developing high status connections.

In this study, I focus on two key advantages that networking may provide employees, which are of core interest to organizational scholarship: employee performance and job satisfaction. Scholars have long been interested in understanding the complexities associated with gender differences in performance outcomes given the obstacles and biases that largely harm women's task performance (Biernat, Tocci, & Williams; Foschi, 1996; West, Heilman, Gullett, Moss-Racusin, & Magee, 2012; alternatively, for biases harming men's performance as leaders, see Paustian-Underdahl, Walker, & Woehr, 2014). Networking has generally been shown to be positively related to job performance (Casciaro, Gino, & Kouchaki, 2014; Hwang, Kessler, & Francesco, 2004; Thompson, 2005; see Sturges, Conway, Guest, & Liefooghe, 2005 for an exception), although none of these studies have accounted for individuals' actual networks of relationships (see Table 1.1). However, these scholars have theorized that networking impacts employees' performance not only because it enables them to develop beneficial networks, but also because it enables employees to elicit more advantageous resources from their network

connections. For example, networking may enhance performance for employees by enabling them to develop friendships with higher status coworkers. Furthermore, networkers with high status friends may elicit more resources from their relationships than non-networkers with these same relationships. These theoretical mechanisms for this relationship remain untested, which leaves open the possibility that only one or neither of these theoretical explanations is at work in organizations. This research posits that networking will improve individuals' workplace performance, in part, by enabling individuals to develop friendship networks with high (formal and informal) status and low gender homophily, as well as by eliciting additional resources from these connections. Moreover, this study examines whether this process differs by gender, which largely remains unexamined.

Furthermore, prior research provides mixed evidence regarding whether networking might impact job satisfaction. While Porter and colleagues (2016) found that employees' networking behaviors were positively related to their job satisfaction, two other studies failed to find support for this relationship (Griffeth, Steel, Allen, & Bryan, 2005; Wanberg, Kanfer, & Banas, 2000). However, I suggest these mixed findings are due to gender differences regarding the process by which networking impacts job satisfaction. For example, Macintosh and Krush (2014) found that networking behaviors were positively related to job satisfaction for men, but unrelated to job satisfaction for women. I posit that the process by which networking behaviors enable individuals to develop and capitalize on their workplace relationship differs for men and women, which may explain prior mixed and non-significant findings with regard to the relationships between networking and job satisfaction, as well as networks and job satisfaction more broadly.

This research contributes to a growing body of research examining network development, including the behavioral antecedents to network development. Decades of research has shown the importance of networks for individuals' workplace success (for reviews, see Brass, Galaskiewicz, Greve, & Tsai, 2004; Burt, Kilduff, & Tasselli, 2013). Since informal work relationships are such

a consequential component of organizational life, reaching a comprehensive understanding of the bases for their formation are crucial to specifying accurate theories of organizations. As such, a growing body of research examines network development, which allows scholars to test and refine theory.

Table 1.1: Literature Review on Networking and Social Network Relations

Citation	Networking Definition	Social Network Relations (metrics) Examined or Controlled	Gender Differences	Performance and/or Job Attitudes Examined	Findings
Van Hoye, van Hooft, & Lievens (2009) *Journal of Occupational and Organizational Psychology*	Networking Behavior Frequency: "Individual actions directed towards contacting friends acquaintances, and other people to whom the job seeker has been referred for the main purpose of getting information, leads, or advice on getting a job" (pg. 662; drawn from Wanberg et al., 2000)	Social Tie Network Characteristics: Size (number of contacts who might help job seeker find a job), Tie Strength, Tie Status (educational, occupational, general life status)	Not examined	None	Engaging in more frequent networking behaviors was positively related to network size and tie strength, but not tie status. Women spent slightly less time networking than men.
Vissa (2012) *Organization Science*	Network Broadening: "the extent to which an entrepreneur reaches out to new people and establishes interpersonal knowledge about them" (pg. 494); Network Deepening: "the extent to which an entrepreneur strengthens ties to existing personal network contacts by time pacing interactions with them, overlaying friendships over purely business relations, and preserving existing ties" (pg. 494)	Examined: Number of entrepreneurs' new exchange partners in target organizations (size; potential customers, alliance partners, and/or suppliers). Controlled for: Structural holes in the entrepreneur's egocentric network	Not examined	None	The positive relationship between network-broadening actions and new exchange partners was mediated by reliance on referrals. The relationship between network-deepening actions and new exchange partners was not mediated by reliance on referrals. However, network-deepening actions were negatively related to the number of new exchange partners.
Wolff & Moser (2006) *Diagnostica*	Networking Behaviors: "Behaviors that are aimed at building, maintaining, and using informal relationships that possess the (potential) benefit of facilitating work-related activities of individuals by voluntarily granting access to resources and maximizing common advantages"	Size and structural holes in the task advice, strategic information, and psychosocial networks (i.e., network in which an individual can discuss personal matters)	Not examined	None	Networking behaviors were positively correlated with size in both the task advice and strategic information networks. Networking behaviors were negatively correlated with structural holes in both the task advice and strategic information networks. Networking behaviors were not correlated with either size or structural holes in the psychosocial network.
	Networking Strategies: "Repeated and patterned relational behaviors, which amount to an ensemble or configuration of interdependent relational activities" (pg. 32) Exploration: "Activities aimed at maximizing the number of new relationships, seeking to broaden the network, 'exploring possibilities'" (pg. 34)				

Table 1.1: Continued

Citation	Networking Definition	Social Network Relations (metrics) Examined or Controlled	Gender Differences	Performance and/or Job Attitudes Examined	Findings
Bensaou, Galunic, & Jonczyk-Sédès (2014) *Organization Science*	Networking Strategies: "Repeated and patterned relational behaviors, which amount to an ensemble or configuration of interdependent relational activities" (pg. 32) Exploration: "Activities aimed at maximizing the number of new relationships, seeking to broaden the network, 'exploring possibilities'" (pg. 34) Leverage: "Activities aimed at intensifying selected relationships, striving for depth to extract value" (pg. 34)	Network (task advice, buy-in, professional development, innovation, friendship, and external) Size and Density	Not examined	None	Did not examine the relationships between network exploration and leveraging with network size and density.
Langford (2000) *Australian Journal of Psychology*	Networking Behavior: "A wide array of behaviors designed to build informal interpersonal relationships with people inside and outside the organization (pg. 164; definition drawn from Michael & Yukl, 1993)"	Relationship quality was measured as self-reported relationship strength with 16 work-related categories of people.	Not examined	None	After splitting their field sample into a derivation and a validation sample, the authors found that networking behaviors were positively related to relationship strength in the latter, but not the former sample. Networking behaviors were also positively related to objective career success.
Shipilov, Labianca, Kalnysh, & Kalnysh (2014) *Social Networks*	Career Network-Building Behavioral Tendencies: Meeting people through (a) joint involvement in structured formal groups organized specifically to encourage meeting others and developing norms of mutual obligation and reciprocity (i.e., structured foci networking) or (b) individually oriented activities, such as going to a friend's party and developing a relationship with someone met there by chance (i.e., individually driven networking; pg. 72).	Examined: Network range (i.e., knowing employees within a range of organizations); Controlled for: Friends' Status (i.e., pay);	Not examined	None	Structured foci networking (SFN) had a curvilinear relationship with network range such that individuals obtain maximum range if they engage in moderate levels of structured foci networking. Individually driven networking (IDN) was positively related to network range. Network range had a positive relationship with promotion speed. Extroversion and Machiavellianism were positively related to IDN. Machiavellianism, but not agreeableness, was positively related to SFN.
Lambert, Eby, & Reeves (2006) *Journal of Career Development*	Networking Intensity: "The frequency and thoroughness with which individuals contact other people to get information, leads, or advice about job opportunities and the job search process" (p. 357)	Employees' self-perceived network quality was conceptualized as consisting of two dimensions: (a) the diversity or breadth among network contacts (4 items; e.g., "The individuals that I know on a social basis know each other quite well"; reverse scored) and (b) the perceived value of the information received from one's contacts (2 items; e.g., "The individuals in my social network provided me with access to valuable information and resources during my job search").	Examined but not found	No	Did not examine relationship between network intensity and perceived network quality. Gender and race did not predict the intensity with which individuals engage in networking and or their own perception that their networks were diverse or provided them with valuable information. Age demonstrated a curvilinear relationship with network diversity such that middle-aged individuals reported greater diversity among their network contacts than did younger or older employees. Proactive personality was positively related to networking intensity.

Table 1.2: Literature on Networking and Employee Performance and Job Attitudes

Citation	Networking Definition	Performance and/or Job Attitudes Examined	Gender Differences	Social Network Relations (metrics) Examined or Controlled	Findings
Porter, Woo, & Campion (2016) *Personnel Psychology*	Networking: "Behaviors aimed at building, maintaining, and using informal relationships that possess the (potential) benefit of facilitating work-related activities of individuals by voluntarily granting access to resources and maximizing common advantages" (Wolff & Moser, 2009, pp. 196–197).	Self-reported job satisfaction	Not examined	None	Networking within one's organization was positively related to job satisfaction and job embeddedness. Networking with those outside of one's organization was positively related to perceived employment opportunity and job offers. The negative relationship between networking within one's organization and voluntary turnover was mediated by job embeddedness. The positive relationship between networking outside of one's organization and voluntary turnover was mediated by job offers.
Wanberg, Kanfer, & Banas (2000) *Journal of Applied Psychology*	Networking Intensity: "The frequency and thoroughness of using networking in the job search (e.g., the frequency and thoroughness of contacting other people to get information, leads, or advice about job opportunities and the job search process) (p. 495)"	Self-reported job satisfaction	Not examined	None	Individuals who found their jobs through networking did not report higher levels of job satisfaction than those who did not find their jobs through networking.
Macintosh & Krush (2014) *Journal of Business Research*	Peer, Professional, and Customer Networking: "Individuals' attempts to develop and maintain relationships with others who have the potential to assist them in their work or career" (p. 2628; drawn from Forret & Dougherty, 2001)	Self-reported job satisfaction and organizational commitment	Examined and found	None	Networking with employees within one's organization was not related to job satisfaction or organizational commitment. For men, the positive relationship between networking with those within one's organization and organizational commitment was mediated by job satisfaction. For women, networking with those within one's organization not related to job satisfaction but was directly related to organizational commitment. Networking with professionals outside of one's organization was and networking with customers was not related to job satisfaction. Networking with professionals outside of one's organization and with customers predicted job satisfaction for women, but not men.
Griffeth, Steel, Allen, & Bryan (2005) *Journal of Applied Psychology*	Networking: "Coming into contact with a variety of people, which enhances an individual's visibility in the job market and provides the individual with an informational link to job opportunities as they arise in the employment market (pg. 338)"	Self-reported job satisfaction and organizational commitment	Not examined	None	Networking was negatively related to organizational commitment, but not job satisfaction.
Sturges, Conway, & Liefooghe (2008) *International Journal of Human Resource Management*	Networking: [Did not formally define networking]	Self-reported job satisfaction and organizational commitment	Not examined	None	Networking behaviors were negatively related to affective commitment, but not continuance commitment. The authors did not examine the relationship between networking and performance.
McCallum, Forret, & Wolff (2014) *Career Development International*	Networking Behaviors: "Individuals' attempts to develop and maintain relationships with others for the purpose of mutual benefit in their work and career (p. 596)"	Self-reported organizational commitment	Not examined	None	Networking behaviors focused within an individual's organization was positively related to affective commitment and normative commitment, but not continuance commitment. Networking with individuals outside of an individual's organization showed a significant negative relationship with normative commitment, but not with affective commitment or continuance commitment.

Table 1.2: Continued

Citation	Networking Definition	Performance and/or Job Attitudes Examined	Gender Differences	Social Network Relations (metrics) Examined or Controlled	Findings
Sturges, Guest, Conway & Davey (2002) *Journal of Organizational Behavior*	Networking Behaviors: "Cultivating influential contacts at work, getting introduced to people who could influence career development, and building contacts in areas where one would like to work (pgs. 733, 736)"	Self-reported organizational commitment	Not examined	None	Networking was not related to organizational commitment in either lagged or contemporaneous analyses.
Sturges, Conway, Guest, & Liefooghe (2005) *Journal of Organizational Behavior*	Networking: [Did not formally define networking]	Line manager-rated performance, self-reported affective and continuance commitment	Not examined	None	Networking was not related to affective commitment, continuance commitment, or job performance.
Casciaro, Gino, & Kouchaki (2014) *Administrative Science Quarterly*	Professional Networking: "The purposeful building and nurturing of relationships to create a system of information and support for professional and career success (p. 719)"	Objective archival performance (billable hours)	Not examined	None	"Those who engaged in instrumental-professional networking more frequently tend to have higher performance on the job. The frequency of instrumental networking mediate[d] the relationship between feeling dirty and job performance: feeling dirty has a statistically significant negative indirect effect on [performance]. To address the possibility of reverse causality, we performed a second path analysis, which showed no effects of job performance, either direct or indirect, on either networking frequency or feeling dirty, effectively reducing the plausibility of networking frequency and feelings of dirtiness as artifacts of job performance."
Noe (1996) *Journal of Organizational Behavior*	Networking: "Developing contacts inside the company who provide one with access to information and resources (pg. 122)"	Manager-rated performance	Not examined	None	The authors combined networking items and seeking career guidance items to create 'seek information from others,' which was not related to performance.
Thompson (2005) *Journal of Applied Psychology*	Network Building: "Seek allies and advocates to support personal initiatives and actively strive to attach to people who occupy positions of influence and power (pg. 1012)"	Supervisor-rated task performance	Not examined	None	Network building was positively related to job performance, although this positive relationship was partially mediated by initiative-taking.
Hwang, Kessler, & Francesco (2004) *Academy of Management Learning & Education*	Horizontal and Vertical Networking Behaviors: "Establishing effective relationships with key people – both inside and outside of the organization—who have the potential to assist in one's work or career (pg. 139)"	Self-reported performance (prior semester grades)	Not examined	None	Both vertical (targeting professors) and horizontal (targeting fellow students) networking behaviors had a positive impact on grade performance.
De Vos, De Stobbeleir, & Meganck (2009) *Journal of Business Psychology*	Networking: [Did not formally define networking]	Pre-employment beliefs about employee obligations relating to performance	Not examined	None	Networking was not related to pre-employment beliefs about employees' obligations for performance.

CHAPTER TWO: LITERATURE REVIEW/THEORY

WHY STUDY NETWORK DEVELOPMENT?

Decades of research has shown the importance of networks for individuals' workplace success (for reviews, see Brass et al., 2004; Burt et al., 2013). Since informal work relationships are such a consequential component of organizational life, reaching a comprehensive understanding of the bases for their formation are crucial to specifying accurate theories of organizations. Studying network development is important because it allows scholars to test and refine theory.

For decades, managerial scholars studying effective networks of workplace relationships have implicitly or explicitly suggested that individuals should seek to develop effective networks by changing their networks to include more effective structures and compositions. Given the importance of such malleable individual-level antecedents to networks and network change, scholars have devoted relatively little attention to examining and understanding the control individuals have in developing their relationships compared to the stable individual differences and factors external to the individual that have been found to impact networks. Specifically, as scholars have explored the antecedents to interpersonal networks, they have largely focused on how actor similarity, personality, proximity, organizational structure, environmental factors (Brass et al., 2004), and one's prior network structures and characteristics (Ahuja, 2000; Carpenter, Li, & Jiang, 2012; Gulati & Gargiulo, 1999; Shipilov & Li, 2008; Zaheer & Soda, 2009) impact one's network.

However, examining and understanding the capability individuals have to develop their relationships is important not only from a theoretical, but also a practical perspective. Specifically, understanding the actions individuals can take to developing their relationships is

also of practical importance to a professional discipline like managerial science because it impacts the recommendations offered to employees with regard to developing networks – such as high status networks – and enhancing the benefits – such as performance and job satisfaction – that they receive from their networks. As networks research has revealed, the networks that naturally result from network tendencies and constraints (e.g., actor similarity, personality, proximity, organizational structure, environmental factors; Brass et al., 2004) do not necessarily result in advantageous networks (Cullen-Lester, Woehler, & Willburn, 2016) and certainly can result in disadvantageous networks for underrepresented groups (Ely, 1994; Leonard, Mehra, & Katerberg, 2008; Mehra, Kilduff, & Brass, 1998). Yet individuals may be able to break free from these tendencies and constraints through their actions intended to overcome such disadvantage by developing advantageous network structures and compositions, which is indeed a key rationale for women's leadership development programs (Cullen-Lester et al., 2016; Ely, Ibarra, & Kolb, 2011). However, a recent literature review regarding whether leadership training is effective at helping individuals develop more effective networks, a main goal of many leadership development programs, shows that the outcome is rarely studied and that results are mixed and inconclusive (Van de Valk & Constas, 2011). We know that individuals can be taught to see network structures more accurately (Janicik & Larrick, 2005) and that actively participating in social capital training can help individuals be better performers, gain promotions, and keep their jobs (Burt & Ronchi, 2007), which may be a result of individuals learning to see and capitalize on opportunities from the networks they already have or that develop regardless of their actions (Burt et al., 2013; Janicik, 1998) or individuals' actions actually developing divergent network connections.

Thus, even though it is theoretically and practically important to examine and understand the impact of individuals' attempt to develop their networks, I will explicate how little we know regarding how individuals' attempts to develop their networks can actually impact their networks

(Porter & Woo, 2015; Wolff, Moser, & Grau, 2008). I next briefly review the literature on networking behaviors (for more extensive reviews, see Gibson, Hardy, & Buckley, 2014; Porter & Woo, 2015), the actions individuals engage in to develop and capitalize on their networks.

NETWORKING BEHAVIORAL ATTEMPTS AT NETWORK DEVELOPMENT

Ahuja and colleagues propose that individuals' agency behavior within network development involves "actors purposively enacting their social structures (White, 1992; Emirbayer & Mische, 1998; Burt, 2005) …by choosing or not choosing to establish connections with certain other actors in their networks, by forming or dissolving network links, or by strengthening or weakening relationships" (Ahuja et al., 2012: 438). These agentic attempts to develop and change one's network of workplace relationships have been conceptualized and studied as *networking behaviors* – actions intended to develop, change, or leverage interpersonal relationships with potentially instrumental contacts (Forret & Dougherty, 2001; Porter & Woo, 2015). A growing body of literature has established the relationship between networking behaviors and workplace and career outcomes (for a review, see Porter & Woo, 2015). For example, networking impacts performance (Thompson, 2005), salary (De Vos, De Clippeleer, & Dewilde, 2009; Forret & Dougherty, 2004; Gould & Penley, 1984; Kuijpers, Schyns, & Scheerens, 2006; Langford, 2000; Wolff & Moser, 2009), promotions (Forret & Dougherty, 2004; Luthans, Rosenkrantz, & Hennessey, 1985; Michael & Yukl, 1993; Orphen, 1996; Wolff & Moser, 2010), and career satisfaction (De Vos et al., 2009; Kuijpers et al., 2006; Wolff & Moser, 2009).

This literature has come to theoretical consensus that networking behaviors result in positive work and career outcomes because one's networking behaviors elicit advantageous resources (Porter & Woo, 2015), which could result from individuals developing networks that include more advantageous structures and compositions and/or from individuals learning to use and capitalize on resource opportunities from the networks they already have or that develop

regardless of their actions. Scholars have begun to explore how individuals' networking behaviors actually impact their networks (Porter & Woo, 2015; Wolff et al., 2008). Specifically, networking behaviors have been found to enable individuals to develop new relationships (Vissa, 2012), larger networks (Van Hoye et al., 2009; Wolff & Moser, 2006), stronger relationships (Langford, 2000; Van Hoye et al., 2009), and more diverse networks (e.g., network range; Shipilov et al., 2014). However, the extent to which individuals can intentionally employ networking behaviors that will enable them to develop relationships with high status connections is still unknown.

Employees' networking behaviors may also benefit them by allowing them to capitalize on the networks they already have or that develop regardless of their actions. Research certainly suggests that individuals differ in the degree to which they derive benefits from their advantageous networks (Burt et al., 2013) and that everyone has untapped potential within their networks that could provide additional benefits (Fitzsimons & Shah, 2008; Obukhova & Lan, 2013; Smith, Menon, & Thompson, 2012). An important new thread of social network research lends credence to the possibility that individuals' behaviors impact their ability to capitalize on their networks (Grosser, Obstfeld, & Labianca, 2015; Obstfeld, Borgatti & Davis, 2014). Specifically, scholars have shown that individuals' work outcomes are not only the product of the networks they have, but also how they behave in those networks (Kellogg, 2014; Lingo & O'Mahony, 2010; Obstfeld, 2005).

However, it is widely acknowledged that the theoretical causal process whereby networking produces positive work and career outcomes by engendering advantageous networks and/or enabling the acquisition of beneficial resources remains largely untested (Gibson et al., 2014; Porter & Woo, 2015; Wolff et al., 2008). A historically fragmented conceptualizations of networking (Porter & Woo, 2015) and a dearth of empirical examinations of the theoretical mechanisms explaining how networking impacts work and career success and satisfaction has

plagued this literature, constraining its ability to answer such fundamental and general research questions regarding networking as: How and why does networking relate to career outcomes? Theorizing has historically also been ambiguous regarding what networks or resources are produced by each facet of networking behaviors. However, this fragmented literature has begun to converge on a nuanced conceptualization of what networking is (i.e., building, strengthening/maintaining, and leveraging contacts), which enables scholars to move this stream of research forward by refining our theoretical understanding of the process by which the facets of networking relate to workplace success and satisfaction (Kuwabara, Hildebrand, & Zou, 2016).

What are networking behaviors?

Scholars have begun to converge on a nuanced conceptualization of what networking is; it includes behavioral attempts to build relationships with others, strengthen/maintain relationships with existing contacts, and leverage contacts. I define *networking behaviors* as actions intended to develop, change, or leverage interpersonal relationships with potentially instrumental contacts (Forret & Dougherty, 2001; Porter & Woo, 2015). The networking behaviors individuals engage in are inter-related and are considered a "behavior syndrome" (Wolff, et al., 2008) because individuals tend to consistently engage in a set of networking behaviors (Wolff & Moser, 2006; see also Sturges et al., 2002). However, individuals can and often do change the networking behaviors they engage in based on training (De Janasz & Forret, 2007), network feedback (Gamberini, Martino, Spagnolli, Baù, & Ferron, 2011; Martino, Baù, Spagnolli, & Gamberini, 2009), as well as changes in their beliefs about networking (Bensao, Galunic, & Jonczyk-Sédès, 2015) and motivation to engage in networking (Kuwabara et al., 2016).

Inductive networking research suggests that building networking behaviors involve two types of actions. First, they involve voluntary and purposeful behaviors intended to encounter new individuals, such as through structured foci like participating in projects, events, and

organized groups (Bensaou et al., 2015; Kim, 2013; Vissa, 2012; Wolff & Moser, 2006). Networking research also recognizes that individuals may purposefully encounter individuals with whom they attempt to build relationships outside of structured foci (such as by running in the same area as the networking target or by approaching him or her in the cafeteria at work; Bensaou et al., 2015; Shipilov et al., 2014). In addition, networkers may spontaneously come across individuals with whom they purposefully choose to attempt to build a relationship (Casciaro et al., 2014; Kim, 2013). Thus, building networking behaviors also include behaviors intended to get to know a contact upon meeting them (Kim, 2013; Vissa, 2012; Wolff & Moser, 2006) - such as initiating conversations to identify reasons to begin working together, to find out a new contact's areas of expertise, backgrounds, skill sets, as well as to determine mutual connections to individuals or employers (Kim, 2013).

Inductive networking behavioral research has also examined the behaviors individuals use to maintain or strengthen their relationships with others, finding that these interactions include (1) communications and actions intended to benefit or provide assistance to the other (called *other-prioritization*; Kim, 2013), which may be on a personal or professional level (Vissa, 2012) - such as 'chit-chat' about others' personal lives, joking around (Luthans, 1988), identifying others' needs or issues, proposing how to address them, and delivering results that make others successful - ; and (2) communications about the self (called *self-prioritization*; Kim, 2013) on a personal or professional level (Vissa, 2012) - such as using others as sounding boards (Bensaou et al., 2015), informing about current tasks (Kim, 2013), complaining (Luthans, 1988), or talking about your career (Macintosh & Krush, 2014) or past achievements (Kim, 2013). Maintenance/strengthening networking behaviors involve increasing frequency of interaction, self-disclosure, and contributions of resources and value to another person (Vissa, 2012).

Leveraging networking behaviors include communications or actions intended to extract resources or benefits from a relationship to assist oneself or others, such as asking for advice,

information, or help solving a problem (Wolff & Moser, 2009; Wolff & Kim, 2012), calling in favors (Floyd, 2015), requesting political support (Bensaou et al., 2015), asking someone to introduce you to someone you want to meet or recommend you for an opportunity at work (Cullen-Lester et al., 2016). Networks have untapped potential value in them and leveraging networking behaviors are an active way of capitalizing on those opportunities and realizing the potential benefits of one's network (Floyd, 2015).

Due to the pervasiveness of the norm of reciprocity, one can begin this cycle of exchanging favors - the fulfillment of which establishes trust and strengthens relationships (Gouldner, 1960) - by providing (professional or personal) value to a contact (i.e., maintaining/strengthening networking behaviors), thereby obligating that contact to reciprocate your future requests, or by leveraging a contact, thereby obligating yourself to reciprocate their future requests. In addition, one can ask questions about a new contact (building networking behavior), obligating oneself to reciprocate the self-disclosure (maintaining networking behavior - called *self-prioritization*; Kim, 2013). Networking scholars have theorized that initiating a cycle of reciprocity is an effective strategy for strengthening relationships and capitalizing on one's network (Ibarra & Hunter, 2007) because most professionals exchange favors based on a principle of fairness, striving to preserve an equal balance of giving and getting, protecting themselves by seeking reciprocity after being asked for favors or resources (Grant, 2013).

Table 2.1. Dimensions of Networking Behaviors:

Building Networking Behaviors	Involves two types of actions: (1) Voluntary and purposeful behaviors intended to encounter new individuals, such as through structured foci like participating in projects, events, and organized groups; (2) Behaviors intended to get to know a contact upon meeting them - such as initiating conversations to identify reasons to begin working together, to find out a new contact's areas of expertise, backgrounds, skill sets, as well as to determine mutual connections to individuals or employers
Maintaining/ Strengthening Networking Behaviors	These interactions include: (1) communications intended to benefit or provide assistance to the other (called *other-prioritization*), which may be on a personal or professional level - such as 'chit-chat' about others' personal lives, joking around, identifying alters' needs or issues, proposing how to address them, and delivering results that make alters successful-; and (2) communications about the self (called self-prioritization) on a personal or professional level - such as using others as sounding boards, informing about current tasks, complaining, or talking about your career and past achievements
Leveraging Networking Behaviors	Includes actions intended to extract resources or benefits from a relationship, such as asking for advice, information, feedback, or help solving a problem, calling in favors to gain political support, as well as asking someone to introduce you to someone you want to meet or to recommend you for an opportunity at work

In sum, research on *networking behaviors* suggests these investments in one's career are

worthwhile, impacting one's performance, promotions, salary, and career satisfaction. Although scholars have theorized that networking produces workplace success and satisfaction by enabling the acquisition of beneficial resources and/or engendering advantageous networks, this theoretical causal process remains largely untested (Gibson et al., 2014; Porter & Woo, 2015; Wolff et al., 2008). Specifically, the networking behavioral literature has shown that one's networking behaviors are likely to be correlated with one's networks (see Table 1.1) and to employees' workplace performance and job satisfaction (see Table 1.2), yet has failed to examine the causal process by which networking behaviors enable employees to develop and capitalize on their workplace relationships. In the next section, I describe how employees' gender may impact the extent to which their networking behaviors enable men and women to develop and capitalize on workplace networks.

THE ROLE OF GENDER IN NETWORKING EFFECTIVENESS

While organizations have significantly reduced the overt and intentional forms of sex discrimination that impeded women's careers in the past (Sturn, 2001), a great deal of research suggests women continue to face informal barriers in the workplace. One such arena in which women tend to be disadvantaged is in their workplace networks. For example, one key driver of network development is *homophily* – the human tendency to prefer relationships with those similar to oneself – and gender homphily is an important driver of gender differences in men and women's networks (Cabrera & Thomas-Hunt, 2007), often resulting in women developing fewer relationships with men and dominant coalition members in their organizations, hindering women from gaining influence and advancing in their career (Brass, 1985). Indeed, when women are relatively rare in a setting - which they generally are in higher organizational ranks (Gorman & Kmec, 2009), male-dominated and higher paid industries (Blackburn, Jarman, &

Brooks, 2000; Catalyst, 2007), better paid segments of an organization (Baron & Bielby, 1985; Baron, Davis-Blake, & Bielby, 1986; cf. Cohen, Broschak, and Haveman, 1995), and roles considered necessary work experience for reaching the upper echelons (Silva, Carter, & Beninger, 2012; Silva & Ibarra, 2012) – homophily's impact on relationship development is amplified due to the heightened salience of gender for these numerically rare women (Ely, 1995; Mehra et al., 1998; South, Bonjean, Markham, & Corder, 1982). Since men still overwhelmingly hold high status positions, this can result in women naturally developing lower status networks than their male counterparts.

However, networking has long been considered one of the most crucial ways women can break through the glass ceiling (Baker, 1994; Catalyst, 1993, 1999; Hewlett et al., 2010; Wellington & Catalyst, 2001). Specifically, women may be able to overcome the disadvantages resulting from such naturally developing lower status networks by engaging in networking that enables them to develop higher status networks. For example, women's networking behaviors may allow them to overcome such informal barriers and become more successful at work by enabling them to develop and capitalize on friendships with influential and high ranking men and women (Ibarra, 1993, 1997), as well as relationships that make them central in the dominant coalition (Brass, 1985).

Yet despite theorizing that networking may be one key way women can break through the glass ceiling, prior research suggests networking may work differently for women (Forret & Dougherty, 2004; Misner, Walker, & De Raffele, 2012) and may even be less beneficial for women relative to men (Hewlett et al., 2010; Macintosh & Krush, 2014). Yet we know very little about how and why networking impacts individuals' work/career outcomes differently for each gender and thus how women and men can best capitalize on their investments in networking. Understanding how and why men and women differentially benefit from networking is theoretically and practically important and this research seeks to investigate this important area of

inquiry. Indeed, Ibarra (1993) argued that the best way to move this research stream forward, beyond simply the identification of women's exclusion from informal interaction networks, is to examine what causes network differences for men and women, including differences in network development strategies used by each gender, as well as what the consequences of these differences are for men and women's work and career outcomes. Scholars have noted the continued dearth of research on gender differences in the strategic actions employees take to develop their networks, as well as research regarding how men's and women's social networks change (Cabrera & Thomas-Hunt, 2007). Indeed, there are a number of possible reasons for such gender differences, each with different implications for theory and practice.

It is possible that networking behaviors may differentially enable men and women to develop their relationships, resulting in divergent workplace success and satisfaction. As such, men and women's networking behaviors may create distinct networks. For instance, prior research suggests that the human tendency for developing homophilous relationships in organizations that typically have an unequal hierarchical distribution by gender (Ely, 1994, 1995; Ibarra, 1993; Kanter, 1977), as well as covert or overt gender bias that results in the exclusion of women from "the old boys network" (Eagly & Carli, 2007; Kanter, 1977; Linehan & Scullion, 2008; Mehra et al., 1998), result in men and women creating different networks. As such, men and women's networking behaviors may differentially enable them to develop these networks. Understanding the extent to which men and women can developing networks that enable their workplace success and satisfaction has implications for the theory of networks, as well as practical implications regarding how to properly instruct men and women regarding how to develop their networks. For instance, women and/or men may need to engage in relatively more networking or different networking behaviors than the opposite gender in order to develop effective networks.

Alternatively, men and women may be equally capable or incapable of developing relationships, such as high status relationships, through their networking behaviors. This would suggest that men and women may differ in their ability to capitalize on their networks because similar networks produce divergent outcomes (Burt, 1998; Carter & Silva, 2010; Eddleston, Baldridge, & Veiga, 2004; Ibarra, 1997). For example, scholars have suggested that women do not derive as many benefits from large networks and structural holes as men do because these network positions are considered agentic, and thus counter to gender stereotypes, resulting in women with these networks being perceived as more competent but less warm than women perceived to have smaller, more closed networks (Brands & Kilduff, 2013), thus limiting their effectiveness (Eagly & Carli, 2007). Other scholars have posited that those without legitimacy – which includes women in many settings – may need to develop networks centered around key sponsors who have networks rich in structural holes (Burt, 1998). Finally, while these scholars have suggested that close relationships with males, including friendships with high status males, are beneficial, others suggest that developing such relationships might be perceived negatively due to prescriptive social norms that limit the level of closeness considered appropriate in a male–female work relationships (Cabrera & Thomas-Hunt, 2007), which may limit the value of such relationships for females more than their male counterparts (Hewlett et al., 2010). If similar networks produce different results for men and women, this suggests that men and women can best capitalize on their investments in networking by developing different networks (Ibarra, 1997). Alternatively, if individuals have little ability to develop their networks, or if men and women have differing abilities to develop their networks, this line of thinking may suggest that men and/or women should activate and mobilize different portions of their potential network (Smith et al., 2012) in order to best capitalize on their investments in networking.

Thus, this research seeks to further our nuanced understanding of how gender does or does not impact the causal process by which networking provides workplace success and

satisfaction, illuminating how men and women can best capitalize on their investments in networking. I suggest that understanding gender differences in networking's impact requires examining both how men and women's abilities to develop and capitalize on their networks. Individuals' networking behaviors likely impact their relationships and/or their ability to capitalize on those relationships by modifying others' interest in developing relationships with them and/or willingness to provide them with resources. Previous research certainly suggests that gender is likely to impact others' interest in developing relationships with networkers and/or willingness to provide networkers with resources. Gender is not only the first characteristic that others notice when they see an individual (Contreras, Banaji, & Mitchell, 2013), it also has a significant impact on others' perceptions of an individual's behavior (Heilman & Chen, 2005), which suggests that gender is likely to have an impact on others' reception of male and female networkers.

Not only is gender a salient and relevant individual characteristic that is likely to impact others' reception to an individual's networking behaviors, gender stereotypes also significantly impact others' perceptions of an individual's behaviors in distinct ways. While descriptive and prescriptive gender stereotypes result in women being expected to be warm, nice, friendly, generous, unselfish, kind, helpful, supportive, encouraging, and compassionate (i.e., *communal*), they result in men being expected to be competent, decisive, assertive, and tough (i.e., *agentic*). Indeed, women often have to establish an exceptional degree of competence to convince others they are as capable as their male colleagues (Wellington, 2001). Yet female employees who are perceived as competent, are perceived as less warm because members of social categories with stereotypes involving ambivalent perceptions of competence and warmth – such as females, who are stereotyped as high in warmth and low in competence – endure a double blind (called *the warmth-competency tradeoff*) in which being perceived as higher on one dimension of social judgment leads to lower judgments on the other dimension (Cuddy, Glick, & Beninger, 2011). As

such, women who are competent, but fail to express warmth in their communication and behavior are often viewed as harsh and self-interested, contradicting gender stereotypes that women are and should be warm (Prentice & Carranza, 2002), resulting in others being less interested in developing relationships with them and less willing to provide them with resources.

Consequently, gender may impact the effectiveness of an individual's networking behaviors because men and women are received differently for their networking behaviors. This research also explores why gender may influence networking's impact on individuals' workplace success and satisfaction: subtle, pervasive, acculturated beliefs about gender (i.e., gender stereotypes) influence individuals' ability to attain and/or realize the benefits of their social capital due in part to the likelihood that men and women are viewed differently for the same behaviors (Burt, 1998; Flynn, Anderson, & Brion, *unpublished manuscript*; Forret & Dougherty, 2004; Ibarra, 1992). Thus, individuals' networking may impact their relationships and/or their ability to capitalize on those relationships by impacting others' reception to these networkers.

Understanding how and why men and women differentially benefit from networking is theoretically and practically important and this research seeks to investigate this important area of inquiry. Specifically, this research explores two possible ways gender may influence how networking impacts individuals' workplace success and satisfaction, each of which have different implications for theory and practice. Specifically, men and women's networking behaviors may result in differential workplace outcomes because their networking behaviors create distinct networks (Ibarra, 1993; Kanter, 1977; Linehan & Scullion, 2008) and/or because their networks produce divergent outcomes (Burt, 1998; Carter & Silva, 2010; Eddleston et al., 2004; Ibarra, 1997).

CHAPTER THREE: CONCEPTUAL MODEL/HYPOTHESES

Decades of research has uncovered that individuals tend to develop relationships with those they are similar to (called *homophily*). One of the strongest bases for homophily is gender (Eder & Hallinan, 1978; Ridgeway & Smith-Lovin, 1999). Such commonality makes communication more easy and natural, increases the predictability of behavior, and fosters close, trusting, personal relationships, such as friendships (Lincoln & Miller, 1979; Ridgeway & Smith-Lovin, 1999). Moreover, scholars suggest close cross-gender relationships involving emotionally intimate bonds, such as friendships, may be problematic (Kram, 1988; Thomas, 1990) because gender differences cause misunderstandings and tensions in these relationships (Ibarra, 1993; Tannen, 1994).

Men and women are also often hesitant to develop cross-gender workplace relationships fearing the potential for third parties' to perceive close personal relationships, such as friendships, between men and women as improprietous. Research suggests that men and women perceive cross-gender workplace relationships involving a romantic or sexual component to be both common and to lead to advantage for the lower status person involved. Such prevalent third party perceptions, regardless of the reality, can lead to gossip and social exclusion from coworkers who believe the close cross-gender relationship is resulting in unfair advantage. Not only is this a common perception, research suggests such relationships often do actually provide career advantage to the lower status party, bolstering the perception that close cross-gender relationships may be non-platonic and provide unfair and possibly illicit vehicles to career advancement (Hewlett et al., 2010). As such, men and women tend to develop more workplace friendships with members of their own gender than is likely by chance, given the availability of potential same- and cross-gender contacts in one's workplace (Ibarra, 1992, 1993; Ridgeway & Smith-Lovin, 1999).

Furthermore, cross-gender relationships often fail to develop because of gender stereotypes that suggest that women are less desirable contacts than their male counterparts (Ibarra, 1993). Specifically, gender stereotypes suggest that women are less valuable workplace connections, being viewed as less competent (Wellington, 2001; Wood & Karten, 1986) and 'naturally suited' to leadership (for a review, see Bem, 1981) compared with their male counterparts. This results in cross-gender relationships appearing less beneficial to men than women, diminishing the likelihood that both parties will enable such relationships to develop. Such covert or overt gender bias results in the exclusion of women from "the old boys network" (Eagly & Carli, 2007; Kanter, 1977; Linehan & Scullion, 2008; Mehra et al., 1998).

In sum, these factors all result in men developing more and women developing fewer friendships with male colleagues (Ibarra, 1993; Ridgeway & Smith-Lovin, 1999). Furthermore, women often struggle to develop personal relationships with those with high status relative to their male counterparts. For example, those with high formal status provide their mentors and sponsors with the most benefits (Carter & Silva, 2010; Ibarra, Carter, & Silva, 2010), but women tend to have lower status mentors than men, who have been found to provide them with less visible support and overall fewer benefits (Carter & Silva, 2010; Lang, 2011). Scholars have long suggested that women connect to fewer high status coworkers, in part, because positions with the highest formal and informal status within organizations are still overwhelmingly held by men (European Commission, 2012; Gorman & Kmec, 2009; U.S. Bureau of Labor Statistics, 2015). Status is one of the most important bases of social hierarchy, which confers power and influence over others, providing advantage to employees with higher status friends. Status can be conferred formally: "Within the boundaries of the organization, greater value inheres in positions of higher formal rank" (Magee & Galinsky, 2008: 355). Status can also be established informally (Blau & Scott, 1962), routed in others' deference to an individual (Magee & Galinsky, 2008). These factors result in women developing less effective networks than their male counterparts:

friendship networks that are homophilous with regard to gender, and that also include lower status contacts than men's networks (Ibarra, 1992; Ridgeway & Smith-Lovin, 1999).

However, networking has long been considered one of the most crucial ways women can break through the glass ceiling (Baker, 1994; Catalyst, 1993, 1999; Hewlett et al., 2010; Wellington & Catalyst, 2001). Specifically, women may be able to overcome the disadvantages resulting from such naturally developing low status networks by engaging in networking that enables them to develop high status networks. I define *networking behaviors* as actions intended to develop, change, or leverage interpersonal relationships with potentially instrumental contacts.

I suggest that networking can enable men and women to develop networks that diverge from the relationships that their own natural tendencies (e.g., homophily) and organizational constraints (e.g., unequal gender distribution by rank and informal status) would result in them developing. I posit that employees' intentional efforts to develop and utilize relationships with beneficial contacts will result in increases in the gender heterogeneity and the status of both men and women's friendship networks. First, in any organization in which neither gender constitutes a token class, beneficial cross-gender ties are likely to exist in greater proportions within the organization than in employees' naturally developing gender homophilous networks (Kanter, 2006), especially within friendship networks (Ibarra, 1992). Thus, while women tend to develop friendship networks that are homophilous with regard to gender, and that also include lower status contacts than men's networks, I posit that intentionally employing networking behaviors towards potentially beneficial contacts will increase the status and decrease the gender homophily of employees' friendship networks. These networking behaviors will enable these network changes by improving perceptions of networkers and thereby increasing others' interest in developing relationships with networkers (for a review, see Porter & Woo, 2015).

As men and women make intentional efforts to develop and utilize friendships with potentially beneficial contacts, such as high status and cross-gender employees, through their

networking behaviors, the gender of those networkers is likely to impact the effectiveness of their efforts. The social category of gender carries widespread value connotations (Berger, Fisek, Norman, & Zelditch, 1977; Ridgeway, 1991) routed in gender stereotypes. Such gender stereotype-based expectations are that men will be more competent and better leaders than women (for a review, see Bem, 1981), which I posit will impact others' perception of the value of and potential for benefits from developing relationships with these male and female networkers. These conscious or unconscious perceptions of men as more valuable will thus make their networking efforts more effective than women networkers. These individuals' social categorization as either a man or woman impacts the extent to which their intentional efforts to develop relationships with potentially instrumental contacts will result in friendships with high status contacts, as well as contacts of the opposite gender. Since individuals with more high formal or informal status will be more willing to develop relationships with and provide resources to coworkers they perceive as more valuable, these conscious or unconscious gender stereotype-based expectations of men's relatively elevated value should result in men's networking behavioral attempts to be more successful in developing connections than those employed by women.

Hypothesis 1a: The positive relationship between employees' networking behaviors and friends' formal status is moderated by employees' gender, such that the relationship is stronger for men than women.

Hypothesis 1b: The positive relationship between employees' networking behaviors and friends' informal status is moderated by employees' gender, such that the relationship is stronger for men than women.

I suggest that men's efforts to develop friendships with women will not only be accepted more frequently than women's efforts to develop friendships with men because of gender-based

expectations of men's value as a workplace connection (even accounting for each individual's actual value as a workplace connection), but that men will also seek more cross-gender friendships through their networking behaviors than women. Individuals enjoy connecting with those who impart them with status and power (Kemper, 1978; Heise, 1999). Due to cultural gender beliefs that men have higher status, power, and prestige than women (Lockheed, 1985; Wagner & Berger, 1997; Wood & Karten, 1986), "we would expect men to seek out women for intimate friendships more often than women seek out men" (Ridgeway & Smith-Lovin, 1999: 210).

Furthermore, men may be less concerned regarding the possibility that such close cross-gender friendships may be viewed as non-platonic, providing unfair and possibly illicit vehicles to career advancement, and thus causing backlash in men and women's work and possibly personal life. Indisputably, workplace affairs between men and women result in stiff penalties for both parties. However, the majority of men and women agree that women who engage in workplace affairs receive disproportionately negative career trajectory and reputational consequences, both in the short- and long-term, relative to men who engage in workplace affairs (Hewlett et al., 2010). This may be due to gender stereotypes, which ascribe promiscuity as a negative male trait (Bem, 1974). As a result, men are met with societal leeway for acting in a promiscuous manner given society's relaxed proscription for male promiscuity, while women are met with societal vigilance for the same behavior given society's intensified proscription against women behaving promisciously (Prentice & Carranza, 2002).

Given the perception that they likely face lesser potential negative consequences of cross-gender friendships (Hewlett et al., 2010), I posit that men will be more likely to employ networking behaviors targeting potentially beneficial cross-gender contacts than women. Certainly heightened concerns regarding the backlash women might face from developing cross-gender relationships that are or even appear to be non-platonic will likely keep some women from

being open to their male counterparts' networking attempts. However, I suggest that men's networking attempts to develop cross-gender relationships are still more likely to result in friendship development than similar networking attempts by women due to gender stereotypes that suggest men are likely to be comparatively valuable connections. Finally, the special gender stereotype-related issues women face in the workplace (Eagly & Carli, 2007) is likely to lead them to use networking behaviors to seek out friendships with other women in order to gain support and appropriate information (Ridgeway & Smith-Lovin, 1999).

Thus, I suggest that men's networking behaviors will result in friendships networks that are less homophilous with regard to gender. In other words, I posit that men's networking behaviors will be more successful in developing heterogeneous friendship networks with regard to gender specifically because of the gender category to which men and women are ascribed.

Hypothesis 1c: The negative relationship between employees' networking behaviors and friendship network gender homophily *is moderated by employees' gender, such that the relationship is stronger for men than women.*

This research also seeks to examine how gender impacts the process by which men and women benefit from friendship networks characterized by contacts with high formal and informal status and gender homophily. Gender has been found to impact the relationship between one's networks and work/career outcomes (e.g., Burt, 1998; Ibarra, 1992), suggesting that men and women differ in their abilities to capitalize on their networks. Some organizational scholars have contended that women may be disadvantaged in this process of utilizing (Burt, 1998; Cabrera and Thomas-Hunt, 2007) workplace networks because they lack legitimacy. Burt (1998), Kanter (1977), and other organizational scholars that have uncovered gender differences in network effectiveness have claimed that their theorizing is actually "gender-neutral" in that gender effects

are caused by a lack of legitimacy rather than gender specifically. Alternatively, other organizational scholars have argued that gender's very real impact on workplace relationship effectiveness is often confounded with or impacted by the very real effects of legitimacy on network effectiveness (e.g., Cabrera and Thomas-Hunt, 2007; Ridgeway & Berger, 1986; Ridgeway & Smith-Lovin, 1999). I seek to disentangle the impact of employees' gender and legitimacy on the relationships between friendship networks characterized by high status and gender homophily on two important employee workplace outcomes: performance and job satisfaction. Moreover, I suggest that they may have divergent impacts on the effectiveness of these types of networks. I argue that regardless of an individual man or woman's degree of legitimacy, these individuals' social categorization as either a man or woman impacts the effectiveness of the status and gender homophily of their friendship networks.

Friends with high formal and informal status provide employees with beneficial resources and information (Brass, 1984; Lin, 1982; Magee & Galinsky, 2008). I posit that men, who are viewed as being more valuable connections than women due to gender stereotype-based expectations (Lockheed 1985, Wagner & Berger 1997, Wood & Karten 1986), will receive more beneficial resources from their high status friends than their female counterparts due to expectations of their greater ability to reciprocate value. As such, I posit that men will be able to translate their high status friendships into higher perceived performance than women.

Hypothesis 2a: The positive relationship between employees' friends' formal status and employees' performance is moderated by employees' gender, such that the relationship is stronger for men than women.

Hypothesis 2b: The positive relationship between employees' friends' informal status and employees' performance is moderated by employees' gender, such that the relationship is stronger for men than women.

I posit that men will also receive more beneficial resources from their gender homophilous friendship networks than their female counterparts due to gender stereotype expectations of their ability to reciprocate value (Lockheed, 1985; Wagner & Berger, 1997; Wood & Karten, 1986). Additionally, these often unconscious expectations that men are more valuable contacts shape behavior within organizations in self-fulfilling ways (Magee & Galinsky, 2008). For instance, men, who are perceived as more valuable contacts, tend to receive assignments that are more challenging (Wellington, Kropf, & Gerkovich, 2003), critical to their organization's mission (Silva et al., 2012), and seen as crucial to rising to the highest levels of the organization (Wellington et al., 2003). This may indeed make them more valuable contacts given the experience, skills, knowledge, and resources these divergent roles may have provided them relative to their female colleagues, all else (e.g., rank, informal status, race) being equal. One counterargument to this proposition is that cross-gender friends may be perceived as illicit and providing unfair advantages, yet this possibility is still less likely to harm men than women. Specifically, the potential adverse impact of close cross-gender friendships being viewed as non-platonic is likely to do relatively more harm to women's reputations relative to men, preserving the likelihood that cross-gender friendships might be more valuable to men than women (Hewlett et al., 2010).

Hypothesis 2c: The relationship between employees' friendship network gender homophily and employees' performance is moderated by employees' gender, such that the relationship is positive for men and negative for women.

While high status friends provide employees with beneficial resources (Brass, 1984; Lin, 1982), these high status friends also elicit social comparison processes that can diminish an employee's self-esteem (Magee & Galinsky, 2008). Men are more attuned to their own relative hierarchical social status than women (Tannen, 1994). Additionally, these social comparisons can

result in self-perceptions that one is weak, and perhaps even yielding, impressionable (i.e., influenced by such high status contacts) and approval seeking, all of which are intensified gender stereotype-based proscriptions for men but not women (Prentice & Carranza, 2002). Thus, I posit that men will experience relatively diminished self-esteem from the social comparisons they make with their high status friends relative to with their female counterparts, which will result in men with high formal and informal status friends having reduced job satisfaction.

Alternatively, women are less attuned to their own relative hierarchical social status (Tannen, 1994), are generally in lower formal and informal hierarchical social status positions, and are typically more comfortable filling lower status social roles than men (Eagly, Karau, Miner, & Johnson, 1994). As such, I posit that will not experience this substantial decline in their self-esteem when comparing themselves with their high status friends. Rather, I suggest that the additional valuable resources they receive from their friends with high formal and informal status (despite being a relatively lesser than their male counterparts) will improve women's job satisfaction.

Hypothesis 3a: The relationship between employees' friends' formal status and employees' job satisfaction is moderated by employees' gender, such that the relationship is positive for women and negative for men.

Hypothesis 3b: The relationship between employees' friends' informal status and employees' job satisfaction is moderated by employees' gender, such that the relationship is positive for women and negative for men.

CHAPTER FOUR: METHODS

Research Setting and Sample

The sample for this study consists of employees from a cardiovascular institute within the main campus of a large, prestigious hospital system with magnet recognition from the American Nurses Credentialing Center, as well as awards of excellence in exceptional patient outcomes, safety, patient centeredness, and leadership in and consistent use of evidence based medical practices by some of the most prestigious credited institutions and publications in the world. This cardiovascular institute employs all of the cardiac physicians and surgeons throughout the hospital system and is considered one of the most prestigious institutes in the hospital system. Indeed, the hospital system was ranked in the top 1% for Heart Failure care by the Joint Commission, received a "Gold Plus" rating by the American Heart Association and the American Stroke Association, and was given the distinction as one of the "Best Hospitals for Cardiology and Heart Surgery" by U.S. News and World Report for 2015-2016. The cardiovascular institute is nationally distinguished and includes cardiac physicians and surgeons that are experts in leading-edge technologies. In addition, the cardiovascular institute was the first in the United States to perform multiple clinically approved procedures and serves as a Stereotaxis Center of Excellence for complex ablation. All 45 cardiac physicians and surgeons who primarily work at the hospital system's main campus – located in the Midwestern United States – were selected as the primary population of interest. Importantly, the main campus is a teaching hospital and includes a Cardiovascular Research Institute receiving over thirty-two million dollars from the National Institute of Health to do clinical trials and perform innovative procedures.

The environment within the cardiovascular institute is highly collaborative, as required for its teaching and research practices. Physicians, nurse practitioners, physician assistants, registered nurses, technicians, and administrative leaders work together to ensure high quality patient care and innovative solutions for patients. Indeed, researcher observation confirmed a high

degree of collaboration across these parties. For example, in the institute's emergent and intensive care units, teams of physicians, physician assistants, registered nurses, and technicians do rounds together. As such, 90 nurse practitioners, physician assistants, registered nurses, and technicians, and 36 administrative leaders were also selected by top leadership within the cardiovascular institute to participate in the initial study based on the degree to which they worked with the cardiac physicians and surgeons who primarily work at the hospital system's main campus (the primary population of interest).

Data Collection Procedure

The study was conducted in two phases. In *Phase 1*, I conducted three days of observation at the cardiovascular institute at the hospital system's main campus, as well as a series of 15 hour-long semi-structured interviews with physicians, administrative leaders, physician assistants, and nurses. I asked interviewees a set of questions related specifically to my dissertation research, as described in the measures sections below. For example, I asked employees about their roles, networking behaviors, the resources and relationships they needed to accomplish their jobs, as well as what performance and innovation meant in their roles and within the cardiovascular institute. In addition, I described the steps I would take to ensure employee confidentiality in these meetings. I hosted two presentations, which were attended by 67 employees across all the parties involved in the study. In these presentations, I described the purpose of the project, the importance of network analysis for their institute and work, what would be involved in the survey, and the steps that would be taken to ensure employee confidentiality.

Observation and interviews confirmed the importance of collaboration across physician specialties and the multiple roles within the cardiovascular institute (i.e., physicians, nurse practitioners, physician assistants, registered nurses, technicians, and administrative leaders). In

addition, observation and interviews confirmed the importance of workflow, friendship, and advice relationships within this context, as well as the importance of respect across the roles in the cardiovascular institute. Importantly, respect has been shown to be key within healthcare contexts, especially within physician-physician and physician-nurse relationships (Huntington & Shores, 1983). Indeed, prior research suggests female physicians often struggle to gain respect (i.e., status) from fellow physicians and nurses, while male physicians are often granted respect based on the historical congruence of their gender and role (Babaria, Abedin, & Nunez-Smith, 2009; Gjerberg & Kjølsrød, 2001; Wear & Keck-McNulty, 2004).

The purpose of the interviews was to exhaustively catalog all of the networking behaviors physicians employ in the cardiovascular institute, as well as all of the resources physicians need to be successful in their work and career. In addition, the interviews were designed to develop consensus regarding what constituted performance and innovation for physicians within the cardiovascular institute. From these interviews, I identified a total of 21 networking behaviors that physicians employed with colleagues within the cardiovascular institute, as well as 8 resources physicians need to be successful in their work and career.

All parties also agreed that physician performance consisted of providing high quality patient care and, in conjunction with the hospital's mission as a teaching hospital, being a good educator and teacher. Interviews and archival data revealed that physician pay was not completely standardized across physicians within our sample population and was a conglomerate of many factors, some outside of a physician's control. Thus, physician pay was not an accurate measure of performance. However, physician productivity regarding patient care provided is one component of physician pay that is standardized nation-wide by the U.S. Government, making this archival and standardized indicator valuable for measuring physician productivity, rather than physician performance (e.g., effectiveness), making this an inaccurate measure of performance. In addition, U.S. hospitals are required to send standardized Patient Experience surveys to a portion

of each physician's patients. Standardized questions regarding the physician are used nation-wide as an indicator of physician performance (i.e., patient satisfaction), yet are based on a conglomerate of many factors, some outside of a physician's control (e.g., patient improvement in health, satisfaction with nurses, technicians, and administrators). Thus, this archival and standardized indicator is valuable for measuring patient satisfaction with care/service (i.e., customer satisfaction in this setting), rather than physician performance. Therefore, coworker-rated performance (e.g., reputational performance) is the most accurate measure of physician performance in this setting.

With regard to innovation, interviewees confirmed the distinction between generating novel and useful ideas and practices versus getting new ideas and practices implemented within the cardiovascular institute, divulging many examples of physicians that had struggled to be innovative in one dimension or the other. In addition, these two dimensions of innovation corresponded to archival data from the innovation center within the cardiovascular institute. Specifically, the innovation center regularly sent documentation to employees regarding what did and did not constitute innovation within the cardiovascular institute. This documentation was for a program that rewarded innovative behavior among non-physicians within the cardiovascular institute.

The hospital system's Human Resources Department provided archival data for the study's physician population, including each physician's productivity and patient satisfaction data, as well as prior physician turnover within each department (i.e., Vascular Surgery, Cardiac Surgery, or Cardiovascular Medicine). The Human Resources Department also provided data for everyone in the survey population, including information on each employee's rank, gender, age, ethnicity, tenure, marital status, functional role, title, and department.

Phase 2 began less than three weeks after concluding the observation and interviews of Phase 1. In Phase 2, an online survey was sent to 171 employees, including 45 cardiac physicians

and surgeons (the primary population of interest), 36 administrative leaders, as well as 90 nurse practitioners, physician assistants, registered nurses, and technicians. In all, 171 employees were included in the study and were invited to participate in an online survey. These employees received an email initiation to participate in the study. The invitation included a link to an online survey. The online survey was created and maintained through Qualtrics, which provides the highest level of security. Their servers are protected by high-end firewall systems and vulnerability scans are performed regularly. Qualtrics also uses Transport Layer Security (TLS) encryption (also known as https) for all transmitted data. Respondents accessed the online survey by clicking on the link. The survey software assigned a randomly generated ID code to each employee that completed survey. The consent form was the located on the first page of the survey, and respondents clicked a box indicating that they consented to participate in the study. Non-respondents simply did not access the survey. Employees were free to opt out of participation without repercussions because management at the organization had no way to identify who had completed the survey. Checks of IP addresses showed an absence of multiple responses from the same address.

All employees participating in the study received a survey that consisted of sociometric questions designed to elicit the workflow, advice, friendship, and respect networks, as well as identify individuals each respondent would be more effective in their job if they collaborated more closely with. All employees participating in the study were listed as possible alters. These employee names pre-populated as employees began to type in names of their network of coworkers. Employees were instructed that if a coworker's name did not pre-populate, that coworker was not a part of the study and they should list another coworker. In all, employees were allowed to list up to 25 coworkers. Interviews, key informants, and pre-testing the survey suggested that employees' networks within the survey population might include up to 25 employees. Specifically, physicians that filled multiple roles were likely to work with up to 25

employees that enabled them to be successful in their work and career. 3% of employees listed the maximum number of alters, confirming that our limit was appropriate for our study population.

All employees participating in the study were also asked to rate three of their physician collaborators – that were randomly selected by the Qualtrics survey software – on a number of indicators, as described in detail in the measures section below. For example, respondents were asked to rate these physicians' performance, innovativeness, organizational citizenship behaviors, trustworthiness, networking behaviors, warmth, and competence. Employees could list as many or few physician collaborators as they desired when they listed up to 25 coworkers/alters. Employees that listed more than three physician collaborators (91%) were subsequently asked about three of their physician collaborators that were randomly selected by the Qualtrics survey software. Employees that listed three (5%), two (3%), and one (1%) physician collaborator(s) were asked to rate all of the physicians in their network.

Only the cardiac physicians and surgeons that participated in the study – the primary population of interest – were asked a series of psychometric questions, as described in detail in the measures section below. For example, physician faculty were asked about the networking behaviors they engage in at work, the perceived amount of others' networking attempts targeting them, the resources they receive at work, their perceived political skill, their job satisfaction, their creative self-efficacy, and their degree of extroversion. The online surveys showed all questions in random order, in order to alleviate question order bias (Dillman, 2000, p. 93).

A total of 123 employees (72%) completed the survey. Of the cardiac physicians and surgeons – the primary population of interest – in the study sample, 35 (78%) completed the survey. Of the non-physicians in the study sample, 88 (70%) completed the survey. Missing data for certain variables reduced the usable sample size for the primary population of interest for some analyses to 33 (73%). Respondents' ages ranged from 35 to 79 (M = 48.6) and

organizational tenure from less than a year to 31 years (M = 9.2 years). Respondents were 20% female, 60% Caucasian, 11.4% single, 82.9% full-time, and 28.6% directors. T-tests revealed that there were no significant differences between respondents and non-respondents in these categories.

Measures

Independent Variables

Networking Behaviors. I conducted initial semi-structured interviews with 15 individuals in the organization, including physicians, physician assistants, nurses, and administrators in order to ensure that survey measures fit the context. One purpose of the interviews was to exhaustively catalog all of the networking behaviors physicians employ in the cardiovascular institute. The interviews elicited consist themes with regard to the networking behaviors employed by physicians, the focal population in this study. Interviewees were asked which behaviors they engaged in to develop new relationships, maintain or strengthen current relationships, and utilize relationships. A full list of networking behaviors elicited from interviewees was compiled. Two scholars then independently compared the full list of items with the definitions of the networking behavioral dimensions - building, maintaining/strengthening, and leveraging networking behaviors – to determine which dimension each behavior was a part of. Almost all items were easily sorted and any discrepancies were discussed and easily reconciled.

A recent literature review shows that the networking literature is very diverse and has equally diverse and often confounded measures of networking behaviors. For example, networking behaviors have been "confounded with additional factors such as one's existing network of contacts (a proxy for social networks or social capital) or the skill involved in navigating interpersonal relationships (e.g., networking ability)" (Porter & Woo, 2015: 8). This literature review also points out that portions of this the literature that exclude the goal of the behavior (e.g., job performance, job search, career or personal success) in the definition and

measurement of networking behaviors alleviate dissension of this construct. As such, every effort was made to develop a contextual measure of physicians' networking behaviors that focused on *actions* individuals engage in to develop, change, and leverage their workplace relationships without specifying the desired outcome they were engaged in to achieve.

The networking behaviors literature review highlighted the validity of one well-validated measure of networking behaviors that alleviates dissension of this construct and corresponds to the nuanced conceptualization of what networking is that this fragmented literature has begun to converge on (i.e., building, strengthening/maintaining, and leveraging contacts). Specifically, Wolff & Moser's (2006) full 44-item networking behaviors scale has been well validated in multiple languages (Wolff & Moser, 2006, 2009, 2010; Wolff & Kim, 2012) and is considered the highest quality measure within the literature (Porter & Woo, 2015). As described in greater detail below, the networking items elicited from my interviews were compared to Wolff & Moser's (2006) full 44-item networking behaviors scale, as well as the shortened 18-item version of this scale (Wolff, Spurk, & Teeuwen, *working paper*). This process generally enabled the adaptation of Wolff and colleagues' items to fit the organizational context. When needed, items elicited in interviews were compared to other measures within the networking behavioral literature in order to adapt those published items to fit the organizational context. Adapted items were first reviewed independently by 3 networking behavioral scholars and then 2 key informant physicians within the organization to establish the face validity and content validity of the items within each subscale. Adapted items were then refined as needed. A final version of the adapted networking behavioral measure was again reviewed by these networking behavioral scholars and then key informant physicians within the organization to confirm the face validity and content validity of the items within each subscale. Respondents were asked to indicate the degree to which they agreed with each networking behavioral item on a Likert-type scale ranging from 1

(strongly disagree) to 7 (strongly agree). The Cronbach's alpha for the overall 21-item measure of networking behaviors was 0.92.

Building networking behaviors are defined as actions aimed at making new connections (Kim, 2013) and are comprised of actions that enable one to meet new individuals and actions that allow one to get to know the individuals one meets (Bensaou et al., 2015; Kim, 2013; Vissa, 2012). Interviewees confirmed the importance of four building networking behavioral items from Wolff and Moser's (2006) full networking scale, including all three items from Wolff, Spurk, & Teeuwen's (*working paper*) shortened internal building networking behaviors scale. These items were refined to fit the context. Items include "I approach people I know by sight and start a conversation," "At meetings, social and professional events, or informal gatherings, I take the initiative and introduce myself to new people," and "When I meet someone, I make an effort to find out as much as possible about that person." The final item previously listed was absent from Wolff and colleagues' shortened scale, but was adapted from Wolff and Moser's 44-item scale, as well as a similar item from Vissa (2012), based on the importance placed on this item by interviewees. Importantly, getting to know others has been shown by other inductive qualitative research (Kim, 2013; Vissa, 2012) to be a key component of building networking behaviors.

Many interviewees noted the distinction between utilizing informal gatherings and formal events to meet new contacts in this context. Specifically, multiple interviewees' remarks that physicians rarely got together outside of work, while formal gatherings were more prevalent. Based on these interview responses, an additional item was added to separate utilizing informal gatherings and formal events to meet new contacts. Three networking behavioral scholars were then asked to independently substantiate the face validity and content validity of the items within the subscale. Key informant physicians within the organization were then contacted to independently ensure face validity and content validity of the adapted subscale. Key informant physicians validated the distinction between informal and formal gatherings in this context and

agreed with the decision to add an additional item to separately capture physicians' actions to utilize informal gatherings and formal events to meet new contacts. Thus, networking behavioral scholars and key informants verified that the items below were contextually relevant and important, as well as confirmed that the remaining building networking behavioral items in Wolff & Moser's (2006) full 44-item networking behaviors scale were either not relevant or were repetitive. The final adapted building networking behavioral subscale is presented below. The Cronbach's alpha for the building networking behaviors subscale was 0.82.

Figure 4.1: Building Networking Behaviors

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I approach people I know by sight and start a conversation.	❍	❍	❍	❍	❍
I make use of meetings, symposiums, or social and professional events to meet new people.	❍	❍	❍	❍	❍
I initiate or accept invitations to informal gatherings (i.e., meals, drinks, coffee, attending plays or sporting events) with coworkers in order to meet new people.	❍	❍	❍	❍	❍
At meetings, social and professional events, or informal gatherings, I take the initiative and introduce myself to new people.	❍	❍	❍	❍	❍
When I meet a new coworker, I ask them questions to find out a lot about that person.	❍	❍	❍	❍	❍

Maintaining/strengthening networking behaviors are defined as actions aimed at preserving and strengthening a relationship with another (Kim, 2013) and are comprised of

continued (or increasing) personal and/or professional communications or interactions with another (including developing multiplex relationships; Vissa, 2012; Wolff & Kim, 2012), as well as providing value/benefit to the other (Kim, 2013; Wolff & Moser, 2006). Interviewees confirmed the importance of frequently keeping in contact with colleagues using various routes of communication (e.g., paging, calling, emailing, texting, faxing, and talking in person) regarding work-related matters and on a personal level. In addition, interviewees expressed that showing others one's own professional skill and expertise was an effective contextually-relevant maintaining networking behavior. This corresponds with Kim's (2013) description of self-prioritization as one dimension of maintaining networking behaviors. Specifically, self-prioritization includes communications about the self, including talking about your career and past achievements and informing about current tasks. Indeed, such self-disclosure is universally regarded as a main component of a relationship's intimacy by scholars and laypersons (Fehr, 2004).

Interviewees indicated that there were five key ways for physicians to provide value to all parties (physicians, nurse practitioners, physician assistants, registered nurses, technicians, and administrative leaders) within the cardiovascular institute in which they worked. They indicated that keeping in communication regarding the care of shared patients, as well as sharing decision-making regarding patient care, were important ways to provide value/benefit to the others in this context. In addition, doing things in a timely manner (showing up for rounds or procedures on time) and doing paperwork in a timely manner benefitted physicians by helping keep them on schedule, benefitted physicians and administrators by enabling them to bill more quickly, and benefitted PAs, NPs, nurses and technicians by helping them move patient care along more quickly, freeing up beds. As a part of the mission of a teaching hospital, teaching/training others was another key way to benefit them. Finally, interviewees indicated that recognizing others' professional skill and contributions was a key way physicians could benefit them in their roles.

This corresponds with work-related emotional support, which is universally regarded as a main component of a relationship's intimacy by scholars and laypersons (Fehr, 2004).

Interviewees also used language that suggested that physicians may think structurally (i.e., beyond the dyad) about providing benefits/value to their coworkers. Prior research has suggested that introducing or facilitating interaction between coworkers – *tertius iungens* – (Obstfeld, 2005; Simmel, 1950) and intermediating or acting as a conduit between coworkers who cannot or prefer not to interact – *tertius gaudens* – (Obstfeld, Borgatti, & Davis, 2014; Simmel, 1950) are key ways that individuals can provide benefits/value to their coworkers. As such, items regarding tertius gaudens and tertius iungens behaviors were adapted from the tertius iungens (Obstfeld, 2005) and tertius gaudens (i.e., mediation brokerage; Grosser et al., 2015) orientation measures and added to the maintaining/strengthening networking behavioral subscale.

Most items from Wolff and Moser's (2006) maintaining networking behavioral measure, including all three items from Wolff, Spurk, & Teeuwen's (*working paper*) shortened internal maintaining networking behaviors scale, fit the contextually-relevant maintaining/strengthening networking behaviors elicited from interviewees, as described above. For example, the item "If a colleague has assisted me with a difficult problem, I inform them of the outcome once the problem has been resolved" matched physicians' descriptions of sharing decision making regarding the patient care of shared patients with fellow physicians and subsequently continuously updating those fellow physicians with the patients' health status. As such, minor contextually-relevant changes to item wording were initially made to items from Wolff and Moser's (2006) maintaining networking behavioral measure, as well as Obstfeld and colleagues' tertius iungens (Obstfeld, 2005) and tertius gaudens orientation measures (Grosser et al., 2015).

Three networking behavioral scholars were then asked to independently substantiate the face validity and content validity of the items within the subscale. Key informant physicians within the organization were then contacted to independently ensure face validity and content

validity of the adapted subscale. Next, key informant physicians within the organization were contacted to independently ensure face validity and content validity of the adapted subscale. However, these key informants deemed that many of the adapted items from Wolff and Moser's (2006) maintaining networking behavioral measure did not accurately capture the corresponding contextually-relevant maintaining/strengthening networking behaviors elicited in initial interviews. As such, these items were rewritten to more thoroughly adapt the maintaining networking behavioral items to express the manners in which Wolff and Moser's (2006) items unfolded in this context. Every effort was made to retain the language used in Wolff and Moser's (2006)'s maintaining networking behavioral subscale; original wording was retained whenever minor adaptations were deemed sufficient by key informant physicians.

Networking behavioral scholars again independently substantiated the face validity and content validity of the items within the subscale. Next, key informant physicians within the organization were again contacted to independently ensure face validity and content validity of the refined subscale. Specifically, these networking behavioral scholars and key verified that the items were contextually relevant and important, as well as confirmed that the remaining maintaining networking behavioral items in Wolff and Moser's (2006) full 44-item networking behaviors measure, the tertius iungens orientation measure (Obstfeld, 2005), and the tertius gaudens orientation measure (Grosser et al., 2015) were either not relevant or were repetitive. The Cronbach's alpha for the maintaining/strengthening networking behaviors subscale was 0.85.

Figure 4.2: Maintaining Networking Behaviors

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I nurture my relationships by talking to coworkers on a personal level.	❍	❍	❍	❍	❍
I go out of my way to keep in contact with coworkers regarding the care of our shared patients and other work-related collaborations.	❍	❍	❍	❍	❍
I go out of my way to involve coworkers when making decisions about the care of our shared patients and other work-related collaborations.	❍	❍	❍	❍	❍
I am a good educator and teacher for coworkers when I want to maintain a relationship with them.	❍	❍	❍	❍	❍
I make the effort to compliment and recognize my coworkers for their high quality work and achievements.	❍	❍	❍	❍	❍
I am consistently prompt/timely (when doing rounds, procedures, paperwork, writing orders, responding to requests, etc.) because my coworkers appreciate it.	❍	❍	❍	❍	❍
I make the effort to keep others informed about my work and areas of expertise.	❍	❍	❍	❍	❍
When coworkers cannot or prefer not to interact directly (personally or professionally), I frequently mediate their interactions.	❍	❍	❍	❍	❍

Figure 4.2 Continued

I bring coworkers together when I see opportunities for collaboration between them.	❍	❍	❍	❍	❍
I introduce two coworkers when I think they might benefit (personally or professionally) from becoming acquainted at work.	❍	❍	❍	❍	❍

Leveraging networking behaviors are defined as actions intended to extract resources or benefits/value (e.g., coordination; Borgatti & Lopez-Kidwell, 2011) from a relationship (Bensaou et al., 2015; Wolff & Kim, 2012). Physicians, the focal population in this study, interviewed emphasized the importance of utilizing others to help them accomplish two of their work tasks. First, physicians rely on others to help them care for patients, such as by assisting them when they are providing patient care, relying on others' to care for patients according to their wishes when they are not present, and deriving information and advice from others with regard to making patient care decisions. Second, physicians rely on coworkers to understand others' skills and expertise, as well as connect them to those individuals when needed. For example, a physician may need to refer a patient to a specialist or surgeon for a test or procedure outside of their own and their contacts' expertise. As such, the physician could ask his/her contacts for information on who to refer the patient to, as well as a connection to the referred physician. Interviewees also used language that suggested that physicians may think structurally about leveraging benefits/value from their coworkers. As such, items regarding coalition building and leveraging structural holes were added to the leveraging networking behavioral subscale.

These specific contextual resource and coordination needs of physicians were then compared with leveraging networking behaviors captured in prior qualitative and quantitative networking behavioral research (e.g., Bensaou et al., 2015; Cullen-Lester et al., 2016; van der Heijden, Boon, van der Klink, & Meijs, 2009; Van Hoye et al., 2009; Wolff & Moser, 2006).

Asking for resources and connections were found in prior leveraging networking behavior measures and were adapted from a previously validated scale (Cullen-Lester et al., 2016). While networking behaviors related to leveraging structural holes and coalition building were not found in any networking measures, they could be adapted from other previously validated measures (Grosser et al., 2015; Ferris, Treadway, Kolodinsky, Hochwarter, Kacmar, Douglas, & Frink, 2005). However, other leveraging behaviors were found to be largely context specific, deviating significantly from prior leveraging networking behavior items. As such, additional context-specific leveraging networking behavior items were created for this study based on language used in initial interviews.

Three networking behavioral scholars were then asked to independently substantiate the face validity and content validity of the items within the subscale. Key informant physicians within the organization were then contacted to independently ensure face validity and content validity of the adapted subscale. Specifically, these networking behavioral scholars and key informants verified that the items were contextually relevant and important, as well as confirmed that leveraging networking behavioral items from prior qualitative and quantitative research were either not relevant or were repetitive. The Cronbach's alpha for the leveraging networking behaviors subscale was 0.81.

Figure 4.3: Leveraging Networking Behaviors:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Because of the relationships I've developed, I get valuable input from my coworkers that helps me make patient care and other work decisions.	❍	❍	❍	❍	❍
Because of the relationships I have built, I trust coworkers to care for my patients the way I'd like them to.	❍	❍	❍	❍	❍
Because of the relationships I've developed, my contacts tell me about others' medical skills and expertise.	❍	❍	❍	❍	❍
I have developed relationships with coworkers that will introduce me to those I want or need to meet.	❍	❍	❍	❍	❍
I have developed a network of coworkers who I can bring together when I really need to get things done.	❍	❍	❍	❍	❍
I benefit (personally or professionally) from the fact that some of my coworkers don't have a close relationship.	❍	❍	❍	❍	❍

Mediating Variables

High Formal-Status Friends. To capture each actor's access to people of high formal status, I calculated each actor's access to friends of high hierarchical rank using ego network composition measures in UCINET VI version 6.618 (Borgatti, Everett, & Freeman, 2002) to calculate the number of the actor's friends who are either administration leadership or physician directors.

High Informal-Status Friends. I calculated a measure of an actors' access to friends with high informal status since employees who are recognized by others as having useful and vital information and resources wield influence within organizations. Individuals' informal status in their organization can be identified by their in degree in the directed advice network, which measures the number of people who seek help or advice from the individual (Kilduff & Krackhardt, 1994). I measured each actor's access to friends high in informal status using ego network composition measures in UCINET VI version 6.618 (Borgatti et al., 2002) to calculate the average advice in-degree of the actor's friends.

Friendship Network Gender Homophily. The extent to which an actor's network is homophilous with regard to gender was calculated using the "ego network homophily" function in UCINET VI version 6.618 (Borgatti et al., 2002). Yules Q is a measure of similarity which ranges from -1 for perfect heterophily to +1 for perfect homophily. A value of 0 means no pattern of homophily.

Moderating Variables

Gender. The health system's Human Resources Department provided archival data for the gender of all employees participating in the surveys. Gender was coded (1 = female, 0 = male).

Legitimacy. Legitimacy manifests in the approval (Zelditch & Walker, 1984) and esteem (Ridgeway & Berger, 1986) of others. As such, legitimacy was measured as an actor's in-degree centrality in the directed respect network, which is a count of the number of people who indicated that they respected the alter. After identifying up to 25 coworkers in their network, all respondents were asked to indicate which network contacts they respect. To elicit the *respect network*, I asked: "From the people listed below, please select the individuals you, personally, respect. Check off as many or as few names that apply." The data for the respect network was arranged into a binary adjacency matrix. In the matrix, a value of 1 in cell xij indicated that *i* nominated *j*. A value of 0 indicated that *i* did not nominate *j* for that relation. These matrices include both respondents and non-respondents. The matrices were 171x171 and yielded 29,070 observations of the relationships between all possible pairs of people. I left the respect matrix unsymmetrized, retaining all reported relationships whether or not they were reciprocated. I used UCINET VI, version 6.618 (Borgatti et al., 2002) to derive an individual's status by calculating each actor's in-degree in the directed respect network. In-degree was thus simply a count of the number of people who indicated that they respected the alter.

Dependent Variables

Job Satisfaction. Actors' job satisfaction was measured using Cammann, Fichman, Jenkins, & Klesh's (1983) 3-item measure of job satisfaction. Meta analytic results suggest this Michigan Organizational Assessment Questionnaire 3-item Job Satisfaction Subscale is a reliable and

construct-valid measure of job satisfaction (Bowling & Hammon, 2008). Example items include: "All in all, I am satisfied with my job" and "In general, I like working here." Respondents answered on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The coefficient alpha for this scale was 0.85.

Performance. Physician performance was measured in 3 ways based on organizational archival records and interviews of 15 employees, including representatives of all parties involved in the study. One purpose of these interviews was to develop consensus regarding what constituted performance for physicians within the cardiovascular institute. All parties agreed that physician performance was composed of providing high quality patient care and, in conjunction with the hospital's mission as a teaching hospital, being a good educator and teacher. As such, all employees participating in the study were asked to rate three of their physician collaborators – which were randomly selected by the Qualtrics survey software – on their performance. Specifically, respondents were asked the degree to which each physician "provides high quality patient care" and "is a good educator and teacher," using a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Actors' perceived performance was measured using the average of others' ratings of physicians' performance. The coefficient alpha for this scale was 0.85.

Control Variables

The firm's Human Resources Department provided archival data pertaining to employees in the department, including data on employees' rank, tenure, years as a physician, age, hours worked per week, marital status, ethnic minority status, functional role, full/part-time status, primary center affiliation, and the department in which they worked. I controlled for a number of

demographic variables that have been shown to affect employee work outcomes. The following variables were entered into all regression models as covariates: **director** (0 = non-director, 1 = administrative or physician director), **single status** (0=not single, 1=single), **ethnic minority status** (0=white/Caucasian, 1=not white/ Caucasian), **age** (in years), and **tenure** (in years).

Network size. To capture the size of each actor's friendship network, I calculated each actor's degree centrality on the friendship network symmetrized on the maximum – meaning a dyadic friendship tie was defined as existing if either party stated that the two were friends – in UCINET VI version 6. 618 (Borgatti et al., 2002). This is simply a count of the number of people to whom the actor is connected.

Network Structural Holes. Structural holes in the friendship network were calculated using Burt's (1992) measure of constraint, which measures a focal actor's *lack* of structural holes. Network constraint is an inverse measure of an individual's social capital (i.e. social capital increases as network constraint decreases) and is a function of the number of ties in a network (size), the degree to which the ties know each other (density), and the extent to which the contacts in a network are indirectly connected through a central individual (hierarchy) (Burt, 1998). As a network becomes smaller in size, more dense, and more hierarchical, constraint increases (and social capital decreases) as in each instance, the number of available contact alternatives decreases. I subtracted each respondent's constraint score from 1 to derive their number of structural holes in the friendship network. The values of this variable range from 0 to 1 with larger numbers indicating the presence of more structural holes in a focal actor's friendship network.

Extroversion. Extroversion impacts actors' networking behaviors and is an indicator of an individual's natural tendencies to socialize and develop relationships with coworkers. Controlling for actors' level of extroversion allows me to focus my analysis on actors' intentional efforts to develop and change their workplace relationships. Actors' extroversion was measured using Gosling, Rentfrow, and Swann Jr.'s (2003) 2-item measure of extroversion from the Ten Item Personality Inventory (TIPI). A number of very brief measures of the Big Five Personality Dimensions have been developed. In a comparison of a number of these measures, Furnham (2008) concluded that the TIPI "achieves slightly better validity than the other measures." Items include: "I see myself as extroverted and enthusiastic" and "I see myself as reserved and quiet." Respondents answered on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The coefficient alpha for this scale was 0.81.

Analyses

Hypotheses were tested using ordinary least squares regression. Since dependent variables in Hypothesis 4, 5, 6, and 7 were interval-scaled measures (supervisor-rated job performance and job satisfaction) from the first survey (Phase 2), ordinary least squares (OLS) regression was appropriate to test these hypotheses. Specifically, the dependent variables in hypothesis 4, 6, and 7 is the average of others' ratings of one's performance. The dependent variables in hypothesis 5 is the average self-reported measures of one's job satisfaction. Since dependent variables in Hypothesis 1, 2, and 3 were static network measures from the first survey (Phase 2), ordinary least squares (OLS) regression was also appropriate to test these hypotheses. Specifically, the dependent variables in Hypothesis 1, 2, and 3 include high formal-status friends and high informal-status friends. Additionally, the dependent variables in Hypothesis 1 and 2 include friendship network gender-related heterogeneity.

Residuals analysis confirmed that assumptions of normality were tenable. To ensure there were no issues with multicollinearity, I ran collinearity diagnostics on all analyses. All VIF scores were less than 4, indicating there were no multicollinearity issues (Pan & Jackson, 2008). When testing the hypothesized moderations in all hypotheses, all antecedent, moderation, and interaction variables were centered in order to improve the interpretability of the main effect coefficients in the plotted interactions.

Table 5.1: Dimensions of Networking Behaviors

Building Networking Behaviors	Involves two types of actions: (1) Voluntary and purposeful behaviors intended to encounter new individuals, such as through structured foci like participating in projects, events, and organized groups; (2) Behaviors intended to get to know a contact upon meeting them - such as initiating conversations to identify reasons to begin working together, to find out a new contact's areas of expertise, backgrounds, skill sets, as well as to determine mutual connections to individuals or employers
Maintaining/ Strengthening Networking Behaviors	These interactions include: (1) communications intended to benefit or provide assistance to the other (called *other-prioritization*), which may be on a personal or professional level - such as 'chit-chat' about others' personal lives, joking around, identifying alters' needs or issues, proposing how to address them, and delivering results that make alters successful-; and (2) communications about the self (called self-prioritization) on a personal or professional level - such as using others as sounding boards, informing about current tasks, complaining, or talking about your career and past achievements
Leveraging Networking Behaviors	Includes actions intended to extract resources or benefits from a relationship, such as asking for advice, information, feedback, or help solving a problem, calling in favors to gain political support, as well as asking someone to introduce you to someone you want to meet or to recommend you for an opportunity at work

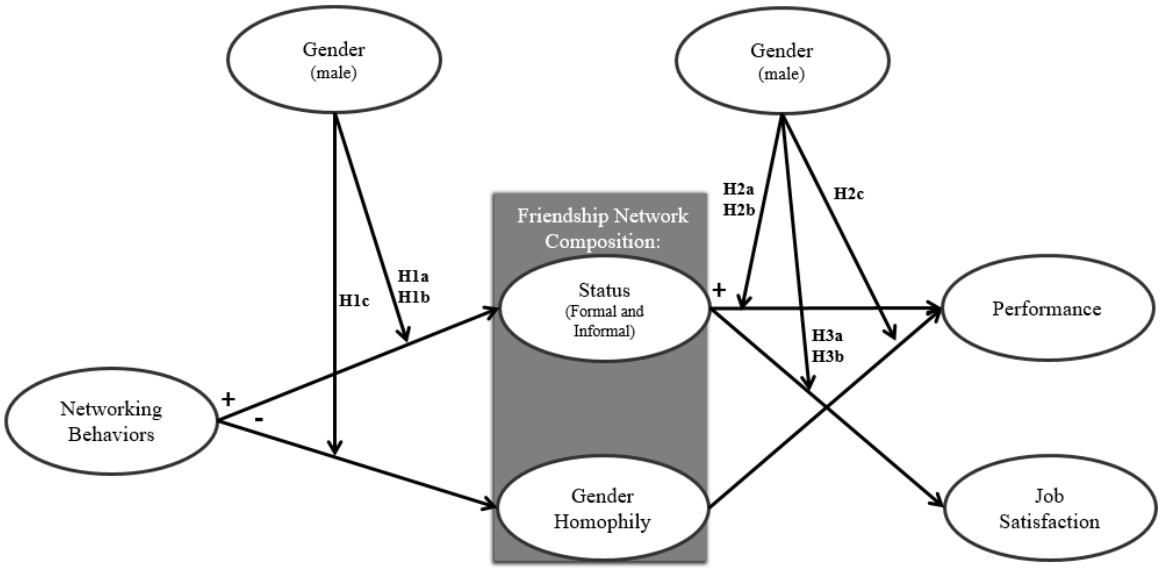
Table 5.2 contains summary statistics and the correlation coefficients for this study's variables.

Table 5.2: Summary Statistics and Correlations

	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Gender (1 = female)	0.20	0.40	0.00	1.00														
2 Legitimacy	16.02	9.38	2.00	38.00	-0.21													
3 Rank (1 = director)	0.22	0.42	0.00	1.00	-0.13	0.33 *												
4 Tenure	10.00	8.65	1.00	42.00	-0.10	-0.18	0.08											
5 Extroversion	4.77	1.58	2.00	7.00	-0.04	0.14	0.13	0.17										
6 Racial Minority (1=minority)	0.36	0.48	0.00	1.00	0.09	0.21	0.16	-0.31 *	0.27									
7 Single Status (1=single)	0.13	0.34	0.00	1.00	0.46 **	-0.24	-0.21	-0.19	-0.21	-0.15								
8 Required Workflow Size	19.91	11.68	1.00	45.00	-0.12	0.80 **	0.35 *	-0.21	0.17	0.27 †	-0.27 †							
9 Friendship Network Size	6.82	4.62	1.00	19.00	-0.22	0.81 **	0.25 †	-0.11	0.31 †	0.29 †	-0.26 †	0.66 **						
10 Friendship Network Structural Holes	0.59	0.24	0.00	0.87	-0.05	0.59 **	0.21	0.09	0.41 *	0.16	-0.28 †	0.64 **	0.60 **					
11 Friendship Network Homophily	0.40	0.54	-1.00	1.00	-0.62 **	0.05	0.14	-0.27 †	0.12	-0.04	-0.11	0.06	0.12	-0.15				
12 Friends' Formal Status	2.95	2.50	0.00	10.00	-0.10	0.58 **	0.42 **	0.06	0.45 **	0.24	-0.28 †	0.67 **	0.72 **	0.66 **	0.11			
13 Friends' Informal Status	12.83	4.09	4.00	19.73	-0.14	0.49 **	0.32 *	-0.19	0.31 †	0.22	-0.03	0.65 **	0.39 **	0.47 **	0.08	0.56 **		
14 Employees' Performance	6.39	0.44	5.28	7.00	-0.06	-0.03	0.06	0.33 *	-0.16 *	-0.26 †	-0.10	-0.12	-0.01	-0.05	-0.22	-0.05	-0.12	
15 Employees' Job Satisfaction	5.65	1.19	3.00	7.00	-0.25	0.41 *	0.32 †	-0.03	0.41 *	0.25	-0.12	0.46 **	0.35 *	0.51 **	0.22	0.58 **	0.31 †	-0.08

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
† Correlation is significant at the 0.10 level (2-tailed).

Figure 5.1: Conceptual Model



Hypothesis 1a (H1a) contends that the positive relationship between employees' networking behaviors and friendship network formal status is moderated by employees' gender, such that the positive relationship is stronger for men than women. The results of OLS regression presented in Table 5.3 largely do not support this hypothesis. First, employees' networking behaviors were not related to friendship networks with high formal status. Second, a significant negative association was found between the gender × networking behaviors interaction term and friendship network formal status (b = -1.42, p < .10). To interpret the significant moderating effects, I followed Aiken and West's (1991) method and plotted two simple regression lines corresponding to high and low values of the predictor variables defined by the separate groups (as in the case of gender) or defined by one standard deviation above and below the mean (as in the case of legitimacy; Aiken & West, 1991). As seen in Figure 5.2, the relationship between networking behaviors and friendship network formal status is positive for men and negative for women. Consistent with H1a, for men, employing more networking behaviors is related to having friends with higher formal status. Contrary to H1a, for women, employing more networking behaviors is related to having friends with lower formal status. Following Williams (2012), I also tested the direct effect of networking behaviors on friendship network formal status significantly differs as a function of the level of the moderator. At very high (90^{th} percentile; t = -2.31; p < .10) but not lower levels of networking behaviors, men and women's friends' formal status are statistically different such that men have friendship networks with higher formal status than women.

Table 5.3: OLS Results of Networking Behaviors Moderations on Friends' Formal Status

	Friends' Formal Status
Controls	
Gender (1 = female)	-0.88 (0.98)
Legitimacy (centered)	-0.07 (0.06)
Rank (1 = director)	1.08 (0.55)†
Extroversion	0.22 (0.18)
Friendship Network Homophily	-0.74 (0.95)
Independent Variable	
Networking Behaviors (centered)	-1.18 (0.85)
Interaction	
Networking Behaviors (centered) X Gender	-1.42 (0.76)†
Networking Behaviors (centered) X Legitimacy (centered)	0.06 (0.03)†
Adjusted R-Squared	0.46
F	5.25*
VIF	2.02

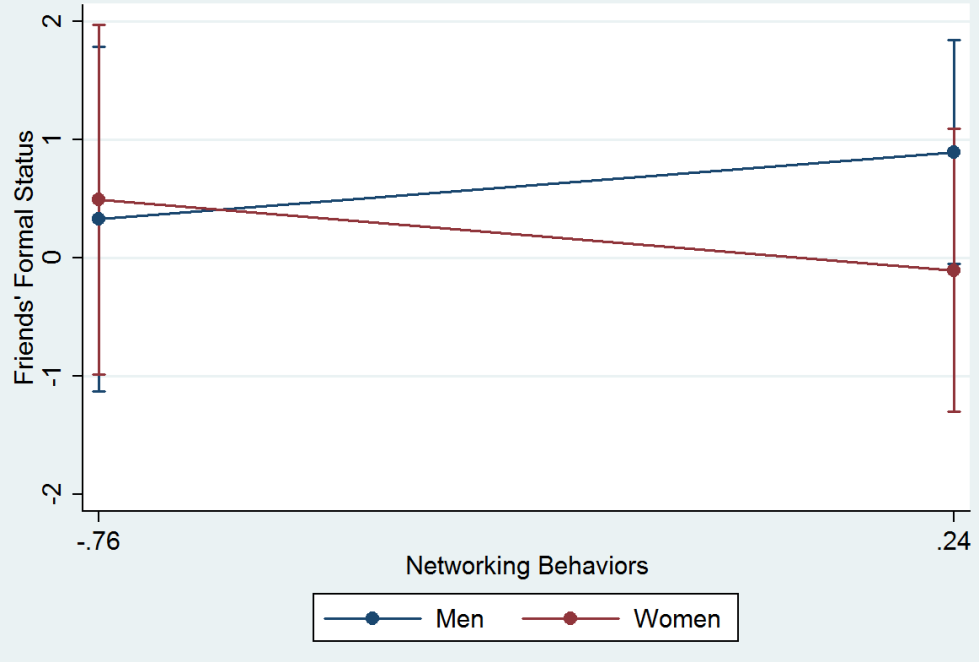
Note. Standard errors in parentheses, n = 35.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

† Significant at the 0.10 level (2-tailed).

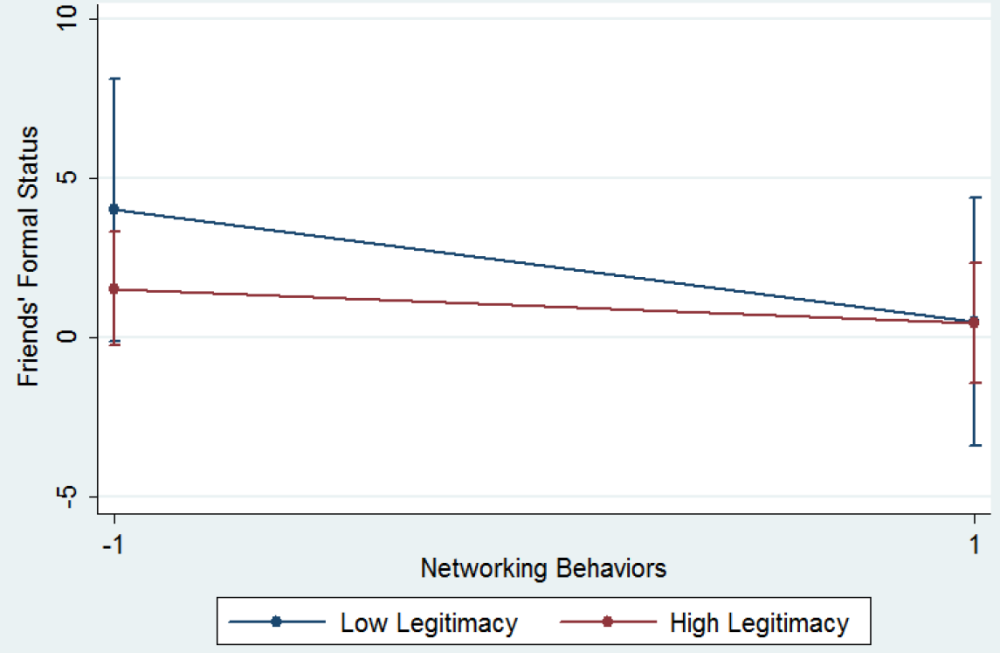
Figure 5.2: Interaction Plot of Networking Behaviors and Gender on Friendship Network Formal Status



It will be recalled that the impact of gender and legitimacy are often conflated theoretically and methodologically in networks research. As a robustness check, the effect of employees' legitimacy on the relationship between networking behaviors and friendship network formal status was also examined simultaneously, allowing me to disentangle the impact of gender and legitimacy on this relationship. As seen in Table 5.3, the interaction of legitimacy and employees' networking behaviors was a significant predictor of friendship networks with high formal status ($b = 0.06$, $p < .10$). As seen in Figure 5.3, I again followed Aiken and West's (1991) method and plotted two simple regression lines corresponding to one standard deviation above and below the mean. For employees with low legitimacy, those who employ more networking behaviors are likely to have friends with lower formal status. As confirmed by simple slopes analysis, for employees with high legitimacy, networking behaviors do not impact their friends' formal status (Williams, 2012). The direct effect of networking behaviors on friendship network informal status differed significantly as a function of the level of employees' legitimacy such that

those with low legitimacy have friends with more formal status than those with high legitimacy at low (10th percentile; t = -1.71; p < .10) but not higher levels of networking behaviors. In these analyses, I included friendship network size as a control because actors who have more friends in general may have more high status friends. I also controlled for individual differences in extroversion in order to distinguish between the impact of employees' generalized sociability and their intentional networking behaviors.

Figure 5.3: Interaction Plot of Networking Behaviors and Legitimacy on Friendship Network Formal Status



Hypothesis 1b (H1b) asserts that the relationship between employees' networking behaviors and friendship networks with high informal status is moderated by employees' gender, such that the relationship is stronger for men than women. The results of OLS regression presented in Table 5.4 show support for this hypothesized main effect, but not interaction. Employing more networking behaviors was positively related to friendship networks informal status (b = 3.26, p < .05), but this does not differ for men and women. As a robustness check, I again disentangled the impact of gender and legitimacy on this relationship by simultaneously

examining employees' legitimacy as a moderator. As seen in Table 5.4, the interaction of employees' legitimacy and networking behaviors was a significant predictor of friendship network informal status. As seen in Figure 5.4, for both high and low legitimacy employees, employing more networking behaviors is related to having friends with higher informal status, but this relationship is stronger for employees with low legitimacy. The direct effect of networking behaviors on friendship network informal status differed significantly as a function of the level of employees' legitimacy such that those with high legitimacy have friends with more informal status than those with low legitimacy at low (25th percentile; $t = 1.75$; $p < .10$) but not higher levels of networking behaviors.

Figure 5.4: Interaction Plot of Networking Behaviors and Legitimacy on Friendship Network Informal Status

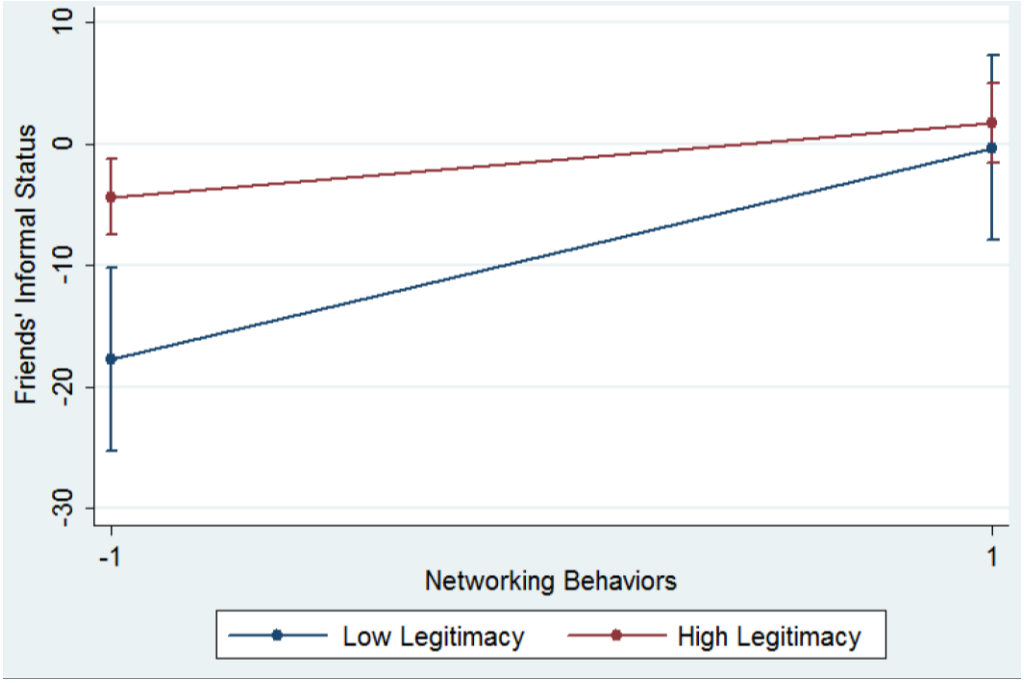


Table 5.4: OLS Results of Networking Behaviors Moderations on Friends' Informal Status

	Friends' Informal Status
Controls	
Gender (1 = female)	0.28 (1.74)
Legitimacy (centered)	0.19 (0.08)*
Rank (1 = director)	-0.05 (1.60)
Extroversion	0.34 (0.46)
Friendship Network Homophily	-1.71 (1.91)
Independent Variable	
Networking Behaviors (centered)	3.26 (1.74)*
Interaction	
Networking Behaviors (centered) X Gender	-0.39 (1.98)
Networking Behaviors (centered) X Legitimacy (centered)	-0.17 (0.09)+
Adjusted R-Squared	0.48
F	3.57**
VIF	2.97

Note. Standard errors in parentheses, $n = 35$.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
+ Significant at the 0.10 level (2-tailed).

Hypothesis 1c (H1c) posits that the negative relationship between employees' networking behaviors and friendship network homophily is moderated by employees' gender, such that the relationship is stronger for men than women. This hypothesis was supported. As seen in Table 5.5, employing more networking behaviors is related to diminished gender homophily in employees' friendship networks (b = -0.80, $p < .10$). The interaction of gender and employees' networking behaviors was also a significant predictor of friendship network gender homphily (b =

0.57, $p < .10$). As seen in Figure 5.5, the interaction shows that the hypothesis was supported. For men, employing more networking behaviors means they are likely to have less gender homophily in their friendship networks. Following Williams (2012), simple slopes analysis confirmed that, for women, employing networking behaviors does not impact the gender homophily in their friendship networks. Men and women's friendship network gender homophily are statistically different at high (75^{th} percentile; $t = 0.56$; $p < .10$) but not lower levels of networking behaviors. As seen in Table 5.5, the negative relationship between employees' networking behaviors and friendship network homophily did not differ based on employees' legitimacy.

Figure 5.5: Interaction Plot of Networking Behaviors and Gender on Friendship Network Gender Homophily

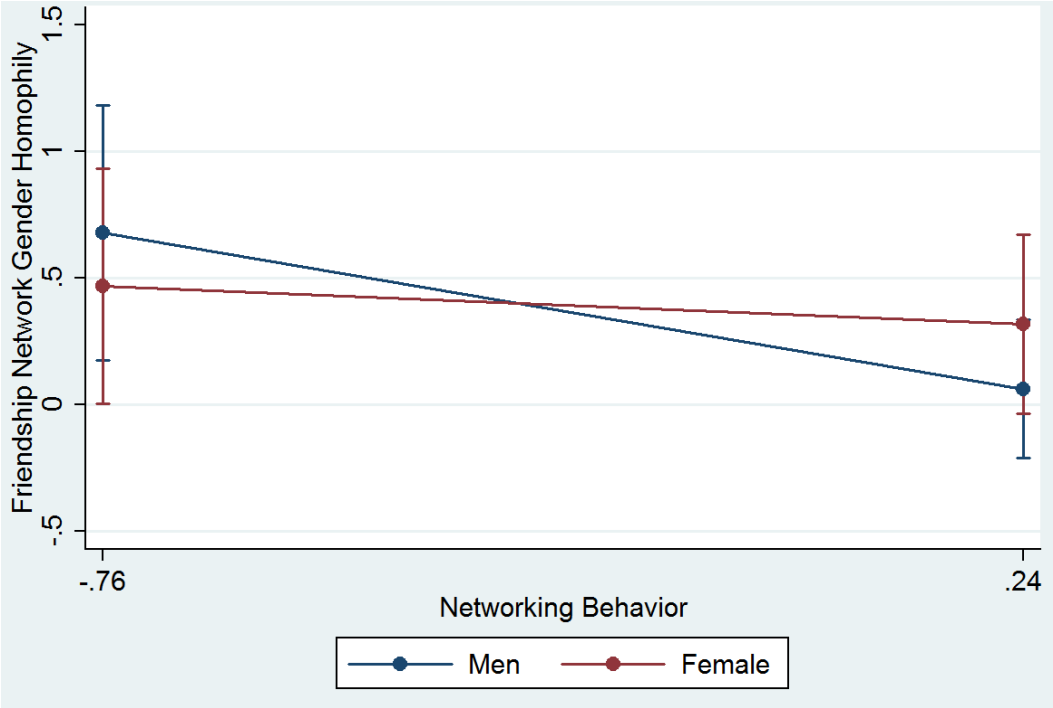


Table 5.5: OLS Results of Networking Behaviors Moderations on Friendship Network Gender Homophily

	Friendship Network Gender Homophily
Controls	
Gender (1 = female)	0.33 (0.25)
Legitimacy (centered)	0.01 (0.01)
Rank (1 = director)	0.35 (0.24)
Extroversion	-0.05 (0.06)
Friends' Formal Status	-0.09 (0.06)
Independent Variable	
Networking Behaviors (centered)	-0.80 (0.44)+
Interaction	
Networking Behaviors (centered) X Gender	0.57 (0.31)+
Networking Behaviors (centered) X Legitimacy (centered)	0.03 (0.02)
Adjusted R-Squared	0.44
F	2.57*
VIF	2.01

Note. Standard errors in parentheses, $n = 35$.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
+ Significant at the 0.10 level (2-tailed).

Hypothesis 2a (H2a) asserts that the positive relationship between employees' friendship network formal status and employees' performance is moderated by employees' gender, such that the relationship is stronger for men than women. The results of OLS regression presented in Table 5.6 do not support this hypothesis. First, friendship network formal status was not related to

performance. Second, contrary to the hypothesized direction, a significant negative association was found between the gender × networking behaviors interaction term and friendship network formal status (b = -0.70, p < .01). As seen in Figure 5.6, the interaction was not in the expected direction. For women, having friends with higher formal status is related to lower performance. Recall that performance is based on coworkers' perceptions of the quality of patient care and effectiveness of teaching provided. Simple slopes analysis confirmed that, for men, their friends' formal status is not related to their performance. At low levels of friendship network formal status (25^{th} percentile; t = 2.19; p < .05), men and women's performance is statistically different such that women have higher performance than men. Additionally, at very high levels of friendship network formal status (90^{th} percentile; t = -2.16; p < .05), men and women's performance is statistically different such that men have higher performance than women.[1]

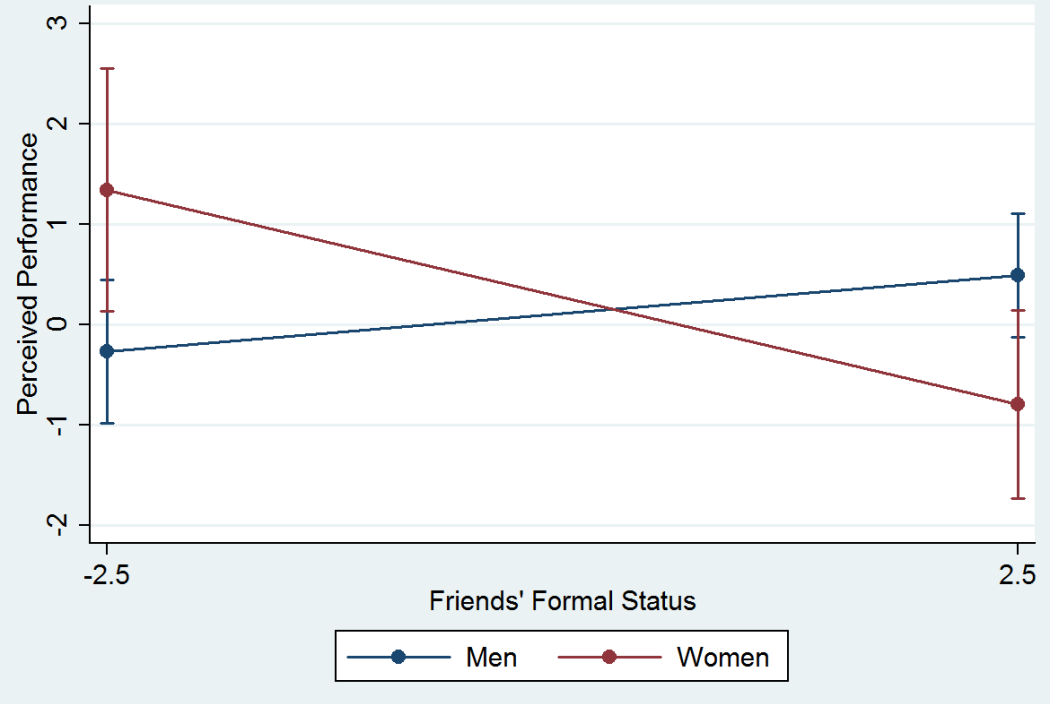
[1] These analyses examined the possibility that gender impacts the relationships in my conceptual model over and above any impact of legitimacy on these relationships. However, it was important to examine the possibility that gender and legitimacy *interacted* to impact the relationships in my conceptual model. While not formally hypothesized, I examined three-way interactions between networking behaviors, gender and legitimacy on friendship network status and gender homophily. Results showing support for this three-way interaction predicting friends' informal status can be found in Appendix 3. These other three-way interactions were not significant. Results show that networking behaviors are related to higher friends' informal status for men and women with low legitimacy, as well as women with high legitimacy (b = -0.67, p < .10). However, networking is unrelated to friends' informal status for men with high legitimacy. Networking is most beneficial in terms of improving friends' informal status for women with low legitimacy. Additionally, the positive relationship between networking behaviors and friends' informal status does not differ significantly for men with low legitimacy and women with high legitimacy. I additionally examined the possibility that a three-way interaction between gender, legitimacy, and friendship network status or gender homophily would predict job satisfaction and performance. These three-way interactions were not significant. These additional results are available from the author upon request.

Table 5.6: OLS Results of Friends' Formal Status Moderations on Employees' Performance

	Employees' Performance
Controls	
Gender (1 = female)	0.20 (0.31)
Legitimacy (centered)	0.04 (0.03)
Rank (1 = director)	0.67 (1.00)
Extroversion	0.01 (0.07)
Friendship Network Homophily	1.13 (0.40)*
Friends' Informal Status	0.01 (0.03)
Independent Variable	
Friends' Formal Status (centered)	0.18 (0.13)
Interaction	
Friends' Formal Status (centered) X Gender	-0.70 (0.25)**
Friends' Formal Status (centered) X Legitimacy (centered)	-0.02 (0.01)*
Adjusted R-Squared	0.05
F	1.10
VIF	3.57

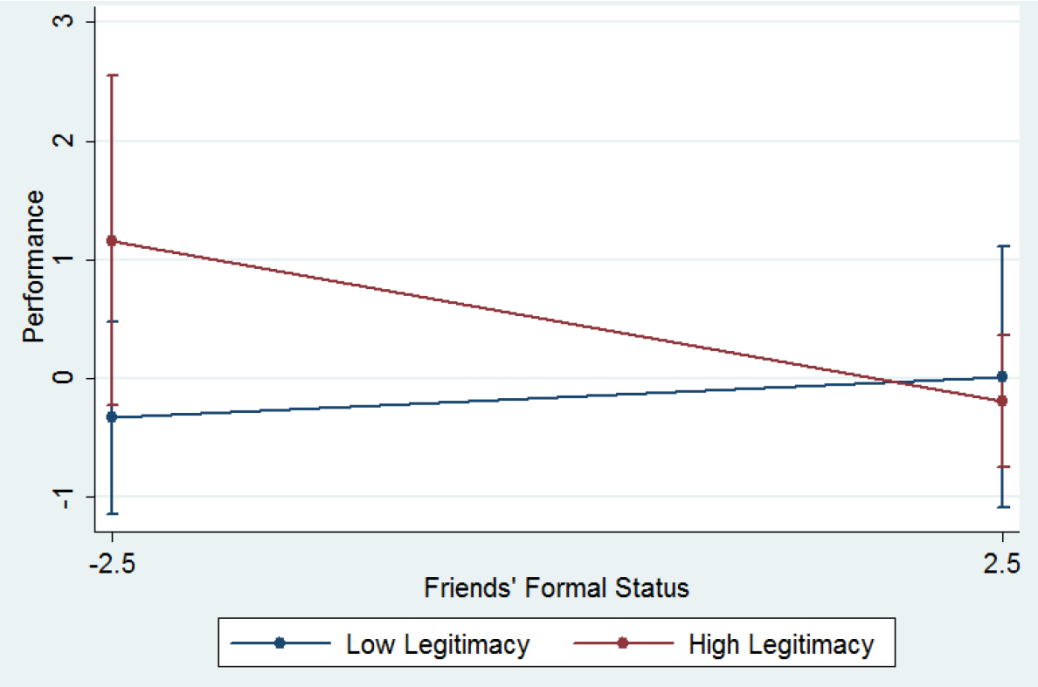
Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Figure 5.6: Interaction Plot of Friendship Network Formal Status and Gender on Employees' Performance



As a robustness check, I again disentangled the impact of gender and legitimacy on this relationship by simultaneously examining employees' legitimacy as a moderator. As seen in Table 5.6, the interaction of employees' legitimacy and friendship network formal status was a significant predictor of performance (b = -0.02, p < .01). As seen in Figure 5.7, for employees with high legitimacy, having friends with higher formal status is related to lower performance. Simple slopes analysis confirmed that, for employees with low legitimacy, their friendship network formal status did not impact their performance. High and low status employees' perceived performance are statistically different at low (25th percentile; t = 1.94; p < .10) but not higher levels of friendship network formal status such that employees with high legitimacy have better performance than employees with low legitimacy.

Figure 5.7: Interaction Plot of Friendship Network Formal Status and Legitimacy on Employees' Performance



Hypothesis 2b (H2b) contends that the positive relationship between employees' friendship network informal status and employees' performance is moderated by employees' gender, such that the relationship is stronger for men than women. The results of OLS regression presented in Table 5.7 do not support this hypothesis. First, friendship network informal status was not related to performance. Second, contrary to the hypothesized direction, a significant negative association was found between the gender × friendship network informal status interaction term and performance (b = -0.08, p < .01). As seen in Figure 5.8, the interaction was not in the hypothesized direction. For women, having friends with higher informal status was negatively related to performance. Simple slopes analysis confirmed that, for men, their friends' informal status did not impact their performance. At low levels of friendship network informal status (25th percentile; t = 3.32; p < .01), men and women's performance is statistically different such that women have higher performance than men. Additionally, at high levels of friendship

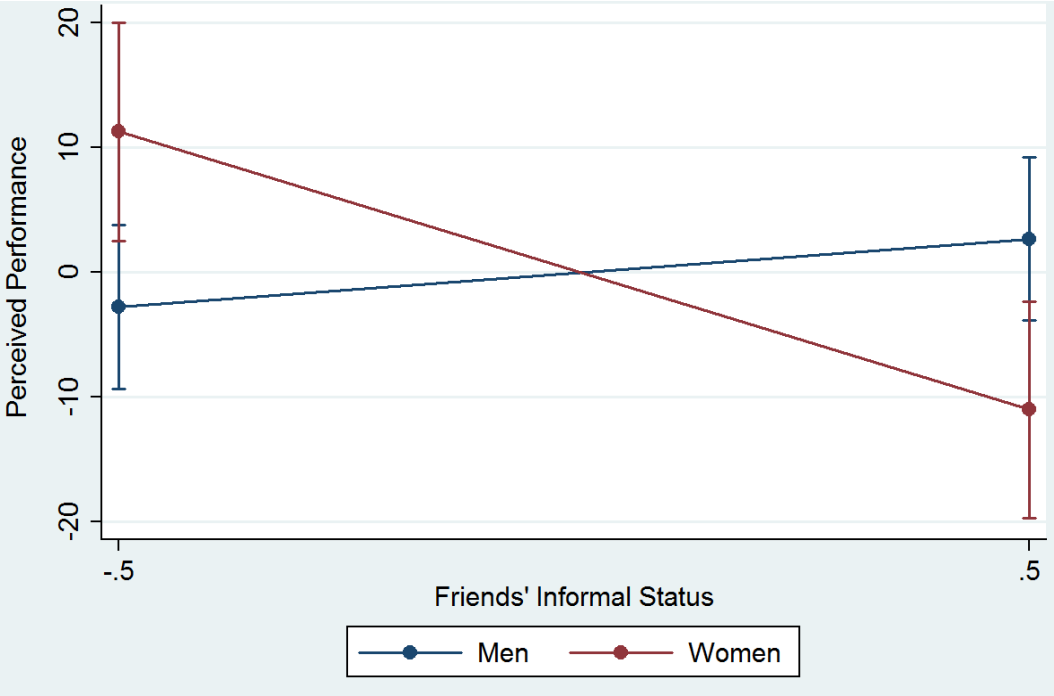
network informal status (75th percentile; t = -3.30; p < .01), men and women's performance is statistically different such that men have higher performance than women. As seen in Table 5.7, the relationship between employees' friendship network informal status and employees' performance was not moderated by employees' legitimacy.

Table 5.7: OLS Results of Friends' Informal Status Moderations on Employees' Performance

	Employees' Performance
Controls	
Gender (1 = female)	0.22 (0.12)
Legitimacy (centered)	0.12 (0.01)
Rank (1 = director)	-0.07 (0.10)
Extroversion	-0.01 (0.03)
Friendship Network Homophily	0.32 (0.19)†
Friends' Formal Status	-0.01 (0.03)
Independent Variable	
Friends' Informal Status (centered)	0.01 (0.03)
Interaction	
Friends' Informal Status (centered) X Gender	-0.08 (0.03)**
Friends' Informal Status (centered) X Legitimacy (centered)	-0.01 (0.01)
Adjusted R-Squared	0.11
F	1.05
VIF	3.90

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Figure 5.8: Interaction Plot of Friendship Network Informal Status and Gender on Employees' Performance



Hypothesis 2c (H2c) posits that the relationship between employees' friendship network gender homophily and performance is moderated by gender, such that the relationship is positive for men and negative for women. As seen in Table 5.8, H2c was not supported. First, the main effect was significant, but in the opposite direction. Employees who have more gender homophily in their friendship networks tend to be better performers (b = 1.12, p < .01). Second, the interaction between friendship network gender homophily and employees' gender was not significant. As a robustness check, I again disentangled the impact of gender and legitimacy on this relationship by simultaneously examining employees' legitimacy as a moderator. As seen in Table 5.8, the interaction of friendship network formal status and employees' legitimacy was a significant predictor of performance (b = -0.04, p < .01). As seen in Figure 5.9, for both employees with high and low legitimacy, friendship network gender homophily is positively related to performance, but the relationship is stronger for employees with low legitimacy. The

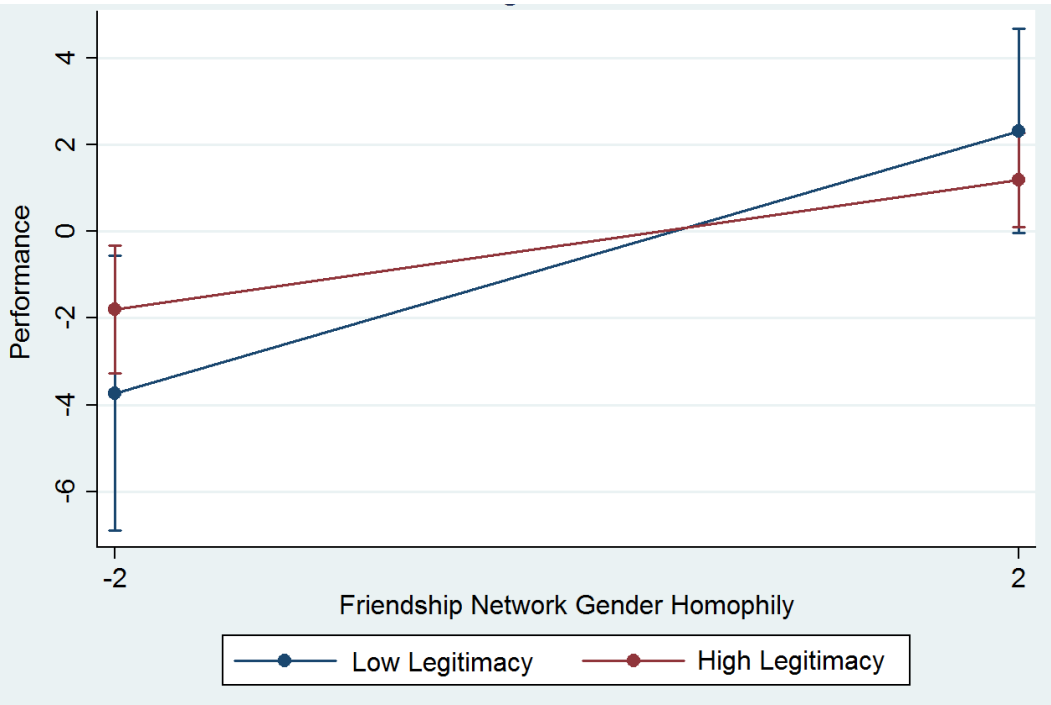
direct effect of friendship network gender homophily on employees' performance did not significantly differ as a function of the level of employees' legitimacy.

Table 5.8: OLS Results of Friendship Network Gender Homophily Moderations on Employees' Performance

	Employees' Performance
Controls	
Gender (1 = female)	-0.11 (0.56)
Legitimacy (centered)	0.02 (0.26)
Rank (1 = director)	-0.05 (0.28)
Extroversion	0.08 (0.07)
Friends' Formal Status	0.04 (0.06)
Friends' Informal Status	0.10 (0.08)
Independent Variable	
Friendship Network Homophily (centered)	1.12 (0.41)**
Interaction	
Friendship Network Homophily (centered) X Gender	0.03 (0.93)
Friendship Network Homophily (centered) X Legitimacy (centered)	-0.04 (0.02)**
Adjusted R-Squared	0.10
F	0.36
VIF	3.12

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Figure 5.9: Interaction Plot of Friendship Network Gender Homophily and Legitimacy on Employees' Performance



Hypothesis 3a (H3a) asserts that the relationship between friendship network formal status and job satisfaction is moderated by employees' gender, such that the relationship is positive for women and negative for men. H3a was partially supported. As seen in Table 5.9, the interaction between employees' friendship networks with high formal status and employees' gender was a significant predictor of employees' job satisfaction ($b = 0.87$, $p < .05$). As seen in Figure 5.10, the interaction was partially representative of the hypothesized direction. Consistent with H3a, for women, having friends with higher formal status was positively related to job satisfaction. Contrary to H3a, simple slopes analysis confirmed that, for men, their friends' formal status did not impact their job satisfaction. Men and women's job satisfaction are statistically different at low (25^{th} percentile; $t = -2.49$; $p < .05$) but not higher levels of networking behaviors such that men have higher job satisfaction than women. As seen in Table 5.9, the

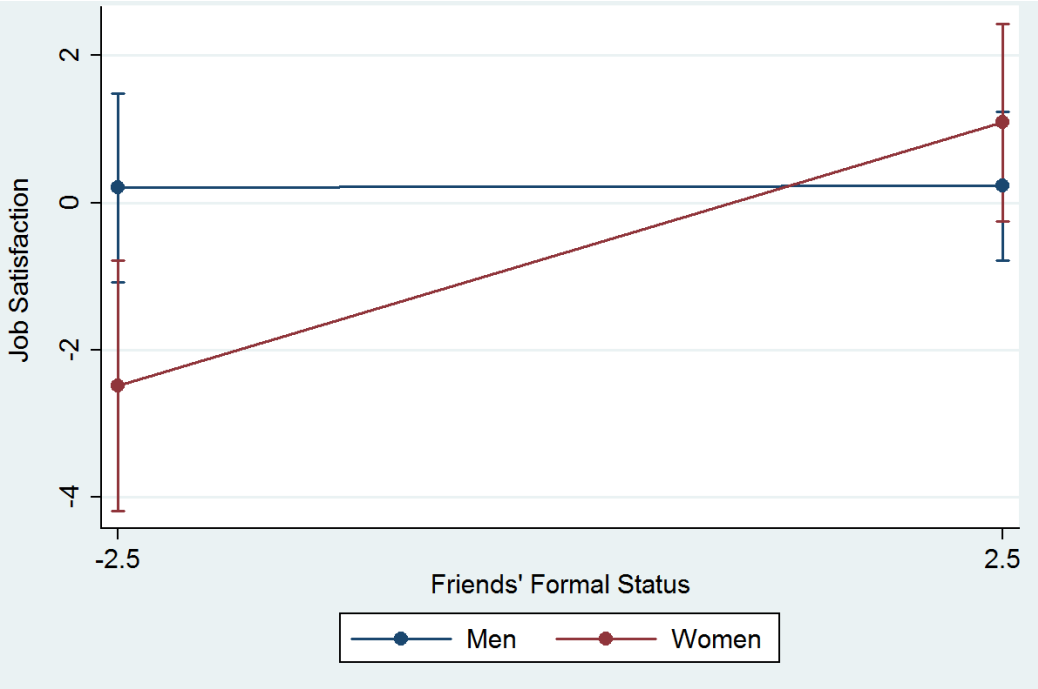
relationship between employees' friendship network formal status and employees' job satisfaction was not moderated by employees' legitimacy.

Table 5.9: OLS Results of Friends' Formal Status Moderations on Employees' Job Satisfaction

	Employees' Job Satisfaction
Controls	
Gender (1 = female)	-1.11 (0.71)
Legitimacy (centered)	-0.04 (0.04)
Rank (1 = director)	-1.40 (1.64)
Extroversion	0.16 (0.13)
Friendship Network Homophily	0.54 (0.45)
Friends' Informal Status	-0.28 (0.13)*
Independent Variable	
Friends' Formal Status (centered)	0.14 (0.25)
Interaction	
Friends' Formal Status (centered) X Gender	0.87 (0.40)*
Friends' Formal Status (centered) X Legitimacy (centered)	0.01 (0.01)
Adjusted R-Squared	0.24
F	2.53*
VIF	3.78

Note. Standard errors in parentheses, $n = 35$.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
+ Significant at the 0.10 level (2-tailed).

Figure 5.10: Interaction Plot of Friendship Network Formal Status and Gender on Employees' Job Satisfaction



Hypothesis 3b (H3b) contends that the relationship between employees' friendship network informal status and employees' job satisfaction is moderated by employees' gender, such that the relationship is positive for women and negative for men. As seen in Table 5.10, the interaction term for Hypothesis 3b was significant ($b = 0.29$, $p < .01$). As seen in Figure 5.11, the interaction was largely in the predicted direction. For women, having friends with higher informal is related to higher job satisfaction. For men, having friends with higher informal is related to lower job satisfaction. Men and women's job satisfaction were not statistically different at low or high levels of friends' informal status.

Table 5.10: OLS Results of Friends' Informal Status Moderations on Employees' Job Satisfaction

	Employees' Job Satisfaction
Controls	
Gender (1 = female)	-0.70 (0.40)
Legitimacy (centered)	-0.06 (0.04)
Rank (1 = director)	0.62 (0.43)
Extroversion	0.32 (0.15)*
Friendship Network Homophily	0.30 (0.38)
Friends' Formal Status	0.09 (0.10)
Independent Variable	
Friends' Informal Status (centered)	-0.34 (0.10)**
Interaction	
Friends' Informal Status (centered) X Gender	0.29 (0.08)**
Friends' Informal Status (centered) X Legitimacy (centered)	0.02 (0.01)*
Adjusted R-Squared	0.44
F	4.75**
VIF	2.72

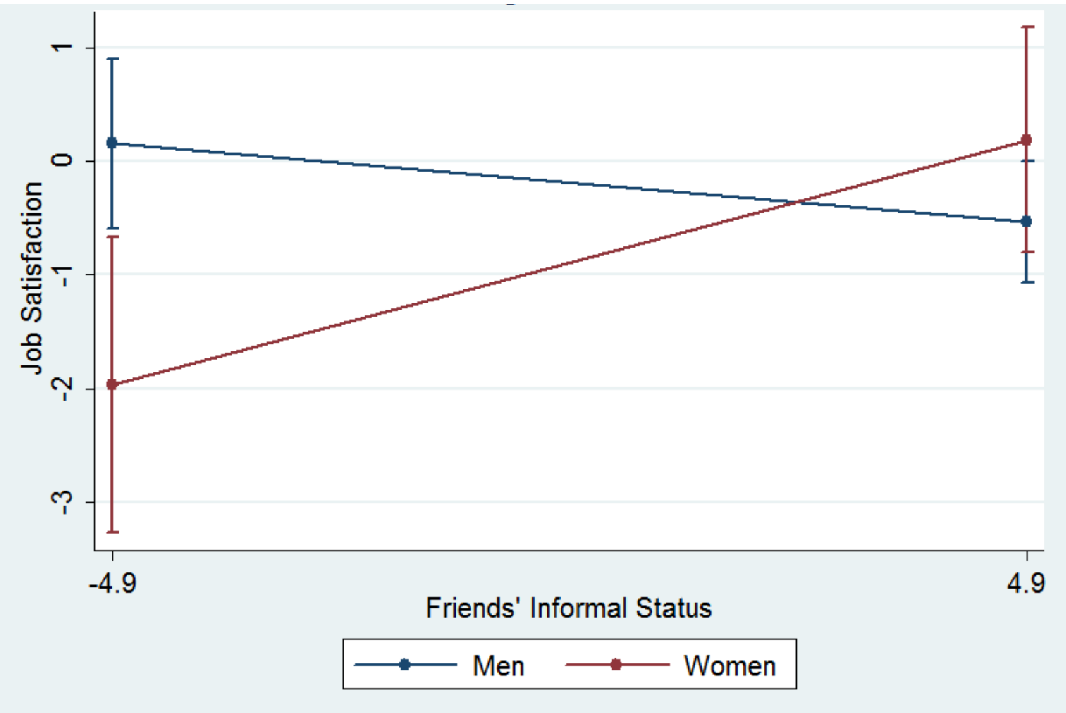
Note. Standard errors in parentheses, $n = 35$.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

+ Significant at the 0.10 level (2-tailed).

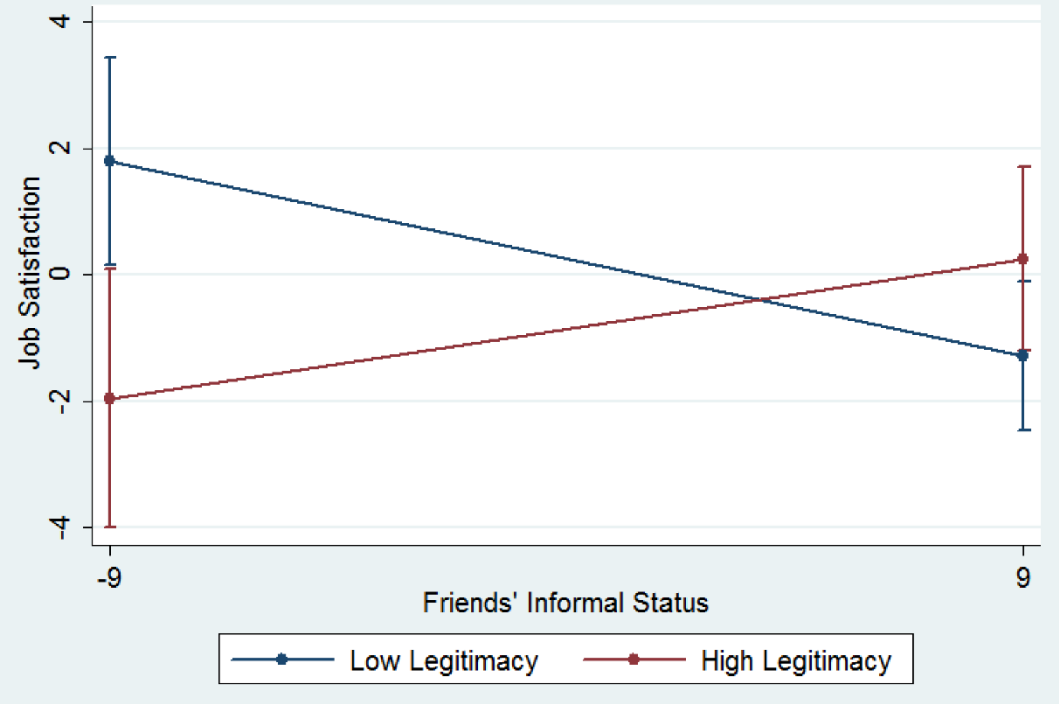
Figure 5.11: Interaction Plot of Friendship Network Informal Status and Gender on Employees' Job Satisfaction



As a robustness check, I again disentangled the impact of gender and legitimacy on this relationship by simultaneously examining employees' legitimacy as a moderator. As seen in Table 5.10, the interaction of employees' legitimacy and friendship network formal status was a significant predictor of job satisfaction (b = 0.02, p < .05). As seen in Figure 5.12, for employees with high legitimacy, having friends with higher informal status is related to higher job satisfaction. Simple slopes analysis confirmed that, for employees with low legitimacy, their friendship network informal status was negatively related to their job satisfaction. High and low status employees' job satisfaction were statistically different at low (25^{th} percentile; t = -2.11; p <

.05) but not higher levels of friendship network formal status such that employees with low legitimacy are more satisfied with their jobs than employees with high legitimacy.[2]

Figure 5.12: Interaction Plot of Friendship Network Informal Status and Legitimacy on Employees' Job Satisfaction



POST HOC ANALYSES

Since gender differences in the relationship between networking behaviors and networks – friendship network formal status, informal status, and gender homophily – could result from differences in the effectiveness of men and women's networking behaviors in cultivating relationships with these colleagues, I examined this possible explanation in two ways. First, I examined the possibility that gender differences are due to male and female networkers being

[2] I did not expect to find that employees' friendship network gender homophily was significantly related to employees' job satisfaction, or that this relationship differed based on employees' gender or legitimacy. Results confirming that these relationships were non-significant can be found in Appendix 2.

perceived differently, which would result in divergent interest in relationships with male and female networkers. For example, these gender differences could result from employees perceiving male and female networkers divergently, resulting in those with high formal status avoiding relationships with female networkers, as well as those with high formal status accepting or even seeking relationships with male networkers.

The networking behaviors individuals engage in are inter-related and are considered a "behavior syndrome" (Wolff, et al., 2008) because individuals tend to engage in a consistent set of networking behaviors (Wolff & Moser, 2006; see also Sturges et al., 2002). When individuals' behave consistently, others form impressions of them (Kelley, 1967). Indeed, people characterize others almost entirely using the two universal dimensions of social judgment: warmth and competence (Cuddy et al., 2009; Fiske, Cuddy, & Glick, 2007; Wojciszke, Dowhyluk, & Jaworski, 1998). The competence dimension of social judgment captures traits related to one's perceived ability, including skill, intelligence, competence, creativity, and insightfulness. The warmth dimension of social judgment captures traits related to one's perceived intent, including helpfulness, friendliness, sincerity, understanding, trustworthiness, and morality (Cuddy et al., 2011). Preliminary theorizing and empirical evidence suggest networking behaviors may impact others' perceptions of networkers' warmth and competence because networking behaviors generally involve both personal/social elements and instrumental elements (Misner et al., 2012; Wolff & Kim, 2012). For instance, employing networking behaviors involving contributing value to and eliciting value from others should increase one's perceived warmth and competence, respectively. Yet the social (communal) and instrumental (agentic) elements of networking behaviors may impact others' perceptions of men and women divergently given gender stereotypes that women should be communal and men should be agentic (Prentice & Carranza, 2002), as well as the warmth-competence tradeoff that women, but not men, experience. Specifically, as women's perceived warmth increases, women's perceived competence is likely to decrease; while men don't experience this tradeoff (Cuddy et al., 2011). Prior research has

suggested that perceived warmth and competence are strong drivers of others' interest in relationship development (Casciaro & Lobo, 2005; Singh & Tor, 2008). Specifically, networking behaviors can improve others' perceptions of networkers' competence and warmth (Floyd, 2015), making others more willing to develop relationships with these networkers (Casciaro & Lobo, 2005, 2008; Sing & Tor, 2008) and more willing to help them (Cuddy et al., 2011) by providing them with resources (Porter & Woo, 2015). As such, I examined the possibility that gender differences in the relationship between employees' networking behaviors and their friendship network status and gender homophily are due to male and female networkers being perceived differently in terms of warmth and competence.

Second, I examined the possibility that these gender differences resulted from coworkers' being differentially interested in relationships with male and female networkers. Consistent with the above theorizing, networking behaviors may divergently impact others' perceptions of male and female networkers' competence and warmth (Floyd, 2015), making others more interested in relationships with these male and female networkers (Casciaro & Lobo, 2005, 2008; Sing & Tor, 2008). As such, I examined the possibility that gender differences in the relationship between employees' networking behaviors and their friendship network status and gender homophily are due to coworkers with high status or of the opposite gender being differently interested in relationships with male and female networkers.

As seen in Table 5.11, networking behaviors are positively related to perceived warmth ($b = 0.40$, $p < .05$). Additionally, the interaction of employees' networking behaviors and their gender was a significant predictor of coworkers' perceptions of their warmth ($b = 0.69$, $p < .10$). As seen in Figure 5.13, for women, networking behaviors are positively related to perceived warmth. Simple slopes analysis confirmed that, for men, their networking behaviors were unrelated to coworkers' perceptions of their warmth. As seen in Table 5.12, employees'

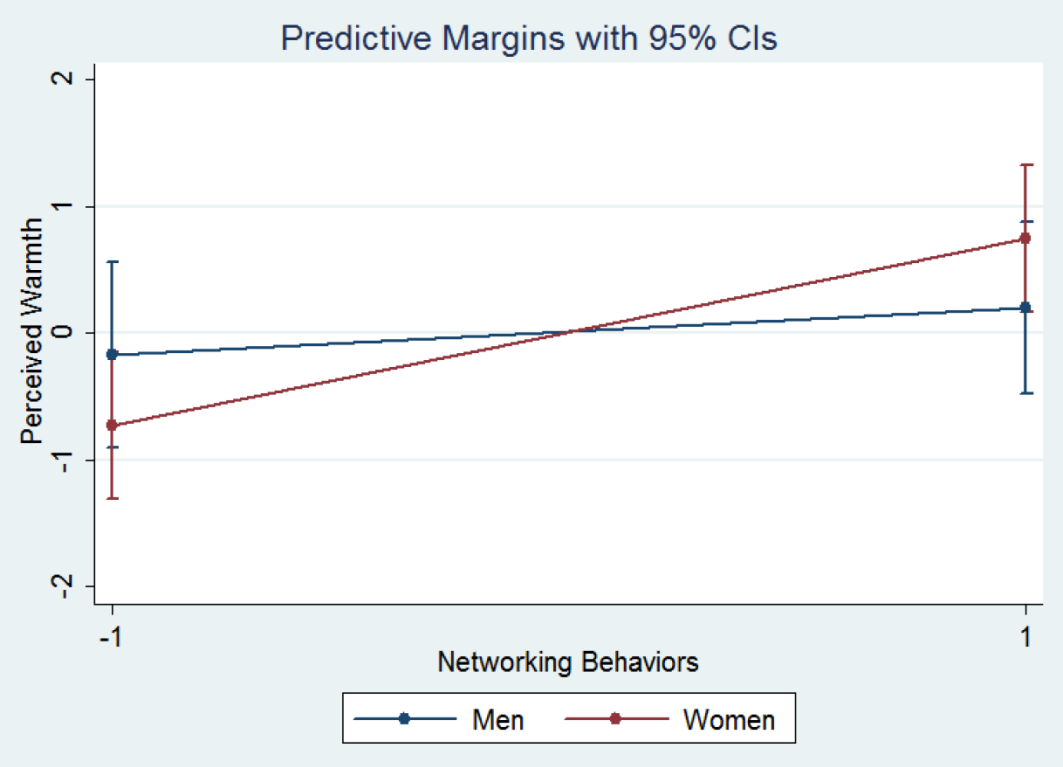
networking behaviors were unrelated to their perceived competence, and the relationship was not significantly different for men and women.

Table 5.11: OLS Results of Networking Behavior Moderations on Perceived Warmth

	Employees' Perceived Warmth
Controls	
Gender (1 = female)	-0.15 (0.28)
Legitimacy (centered)	-0.01 (0.01)
Rank (1 = director)	-0.11 (0.35)
Extroversion	0.06 (0.09)
Friends' Formal Status	-0.03 (0.09)
Independent Variable	
Networking Behaviors (centered)	0.40 (0.16)*
Interaction	
Networking Behaviors (centered) X Gender	0.69 (0.37)†
Networking Behaviors (centered) X Legitimacy (centered)	-0.23 (0.30)
Adjusted R-Squared	0.12
F	1.91

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Figure 5.13: Interaction Plot of Networking Behaviors and Gender on Perceived Warmth



As seen in Table 5.12, employees' networking behaviors were unrelated to their perceived competence, and the relationship was not significantly different for men and women.

Table 5.12: OLS Results of Networking Behavior Moderations on Perceived Competence

	Employees' Perceived Competence
Controls	
Gender (1 = female)	-0.24 (0.17)
Legitimacy (centered)	-0.01 (0.01)
Rank (1 = director)	0.08 (0.17)
Extroversion	0.01 (0.04)
Friends' Formal Status	-0.01 (0.04)
Independent Variable	
Networking Behaviors (centered)	0.01 (0.37)
Interaction	
Networking Behaviors (centered) X Gender	-0.19 (0.26)
Networking Behaviors (centered) X Legitimacy (centered)	0.01 (0.02)
Adjusted R-Squared	0.17
F	0.74

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

As seen in Table 5.13, employees' networking behaviors were unrelated to the formal status of those desiring additional collaboration with them, and the relationship was not significantly different for men and women. As seen in Table 5.14, employees' networking behaviors were unrelated to the informal status of those desiring additional collaboration with them, and the relationship was not significantly different for men and women.

Table 5.13: OLS Results of Networking Behavior Moderations on Formal Status of those Desiring Collaboration

	Formal Status of those Desiring Collaboration
Controls	
Gender (1 = female)	-0.62 (0.49)
Legitimacy (centered)	0.09 (0.03)**
Rank (1 = director)	0.79 (0.48)
Extroversion	-0.06 (0.13)
Friendship Network Homophily	0.09 (0.41)
Friends' Informal Status	0.04 (0.05)
Friends' Formal Status	0.10 (0.11)
Independent Variable	
Networking Behaviors (centered)	-0.25 (0.52)
Interaction	
Networking Behaviors (centered) X Gender	-0.48 (0.50)
Networking Behaviors (centered) X Legitimacy (centered)	0.01 (0.03)
Adjusted R-Squared	0.27
F	4.97**

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Table 5.14: OLS Results of Networking Behavior Moderations on Informal Status of those Desiring Collaboration

	Informal Status of those Desiring Collaboration
Controls	
Gender (1 = female)	-0.03 (4.35)
Legitimacy (centered)	0.08 (0.09)
Rank (1 = director)	-0.77 (0.74)
Extroversion	0.11 (0.73)
Friendship Network Homophily	1.42 (2.50)
Friends' Informal Status	0.22 (0.25)
Friends' Formal Status	0.43 (0.66)
Independent Variable	
Networking Behaviors (centered)	2.26 (1.40)
Interaction	
Networking Behaviors (centered) X Gender	-2.89 (2.77)
Networking Behaviors (centered) X Legitimacy (centered)	-0.11 (0.16)
Adjusted R-Squared	0.11
F	1.30

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

As seen in Table 5.15, employees' networking behaviors were positively related to gender homophily of those desiring additional collaboration with them (b = 1.73, p < .01). Additionally, the relationship between employees' networking behaviors and the gender homophily of those desiring additional collaboration with them was not significantly different for men and women, did differ significantly based on employees' legitimacy (b = -0.07, p < .01). As seen in Figure 5.14, employees' networking behaviors and the gender homophily of those

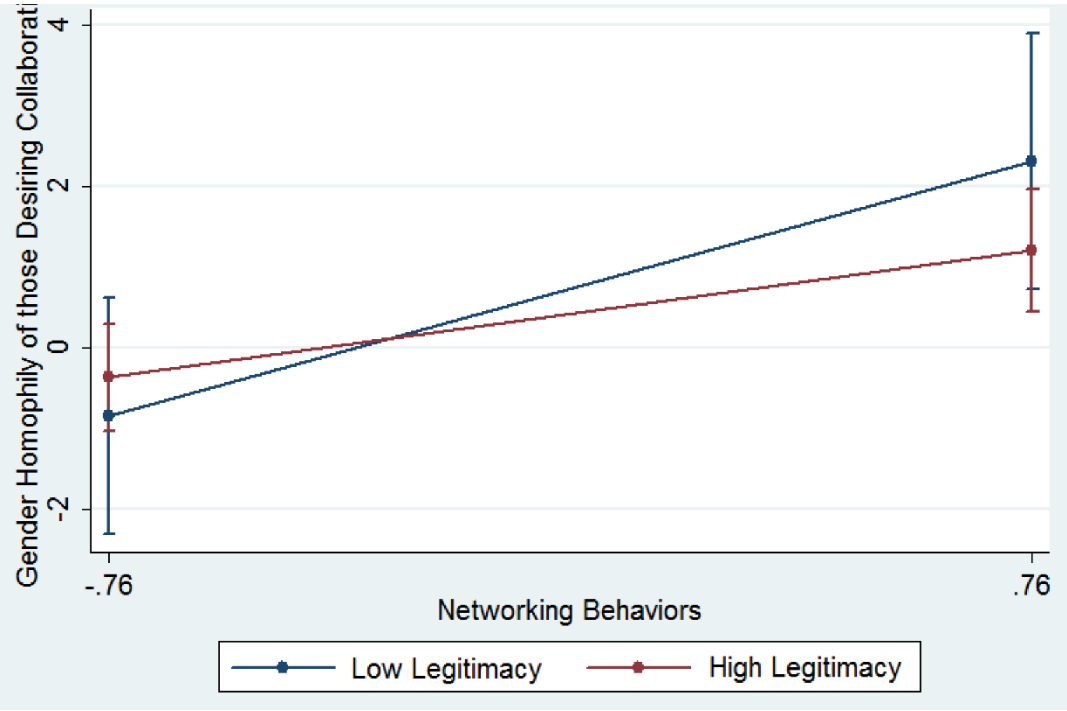
desiring additional collaboration with them was positive for both those with high and low legitimacy, but this was stronger for those with low legitimacy.

Table 5.15: OLS Results of Networking Behavior Moderations on Gender Homophily of those Desiring Collaboration

	Gender Homophily of those Desiring Collaboration
Controls	
Gender (1 = female)	-0.01 (0.23)
Legitimacy (centered)	-0.01 (0.01)
Rank (1 = director)	-0.05 (0.20)
Extroversion	-0.09 (0.06)
Friendship Network Homophily	0.14 (0.21)
Friends' Informal Status	0.06 (0.02)*
Friends' Formal Status	0.14 (0.21)
Independent Variable	
Networking Behaviors (centered)	1.73 (0.48)**
Interaction	
Networking Behaviors (centered) X Gender	-0.51 (0.31)
Networking Behaviors (centered) X Legitimacy (centered)	-0.07 (0.02)**
Adjusted R-Squared	0.19
F	3.53*

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Figure 5.14: Interaction Plot of Networking Behaviors and Legitimacy on Gender Homophily of those Desiring Collaboration



A second potential explanation for gender differences in the relationship between networking behaviors and employees' friendship network status and gender homophily is that these gender differences are a result of differences in men and women's networking choices. For example, men may choose to target their networking behaviors toward coworkers with high formal status while women may choose to target those with low formal status. While I do not have direct evidence regarding who male and female networkers targeted with their networking behaviors, I can begin to examine this possibility by examining whether male and female networkers desire additional future collaboration with higher status and/or gender homophilous coworkers. As seen in Table 5.16, networking behaviors were not related to the formal status of desired collaborators. However, a significant negative association was found between the gender × networking behaviors interaction term and the formal status of their desired collaborators (b = -2.21, $p < .05$).

Table 5.16: OLS Results of Networking Behavior Moderations on Desired Collaborator's Formal Status

	Formal Status of Desired Collaborators
Controls	
Gender (1 = female)	-0.79 (1.19)
Legitimacy (centered)	-0.09 (0.07)
Rank (1 = director)	1.80 (0.67)*
Extroversion	0.16 (0.21)
Friendship Network Homophily	-0.99 (1.16)
Friends' Informal Status	0.13 (0.09)
Friends' Formal Status	0.37 (0.20)†
Independent Variable	
Networking Behaviors (centered)	-1.36 (1.04)
Interaction	
Networking Behaviors (centered) X Gender	-2.21 (0.93)*
Networking Behaviors (centered) X Legitimacy (centered)	0.10 (0.04)*
Adjusted R-Squared	0.29
F	1.95†

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

As seen in Figure 5.15, the relationship between networking behaviors and the formal status of desired collaborators was significantly different for men and women. Simple slopes analysis confirmed that, neither men nor women's networking behaviors was significantly related to the formal status of their desired collaborators. As seen in Figure 5.16, the relationship

between networking behaviors and the formal status of desired collaborators was also significantly different for those with high and low legitimacy. Simple slopes analysis confirmed that, for those with high or low legitimacy, networking behaviors were also not significantly related to the formal status of their desired collaborators.

Figure 5.15: Interaction Plot of Networking Behaviors and Gender on Desired Collaborator's Formal Status

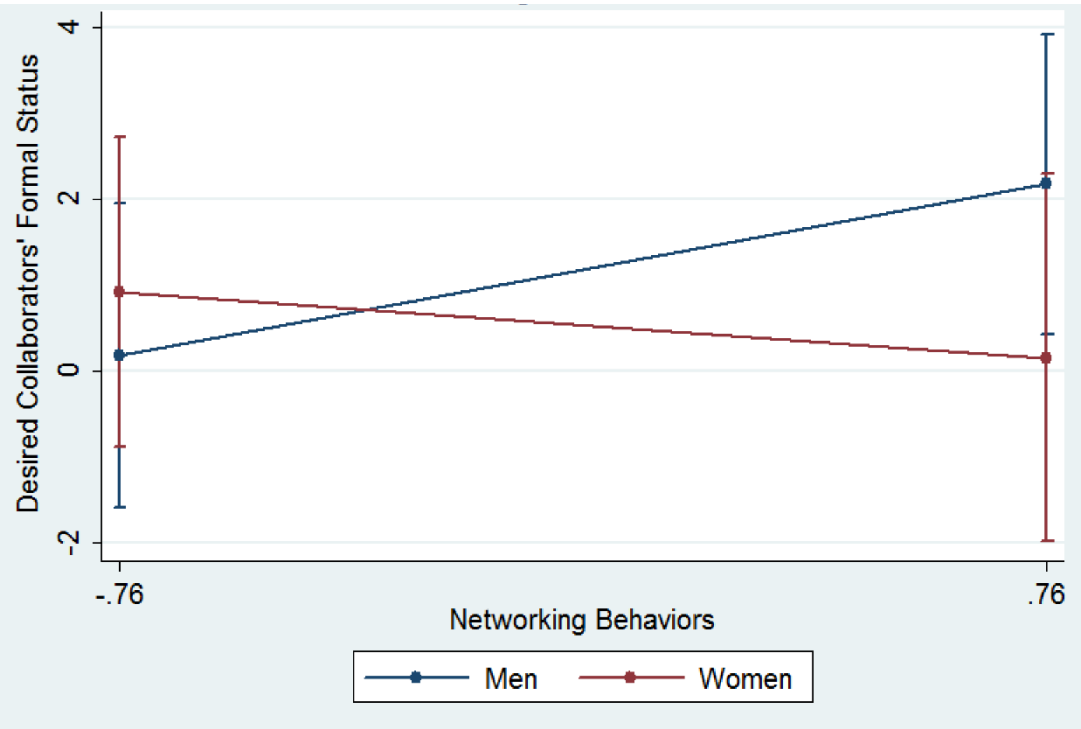
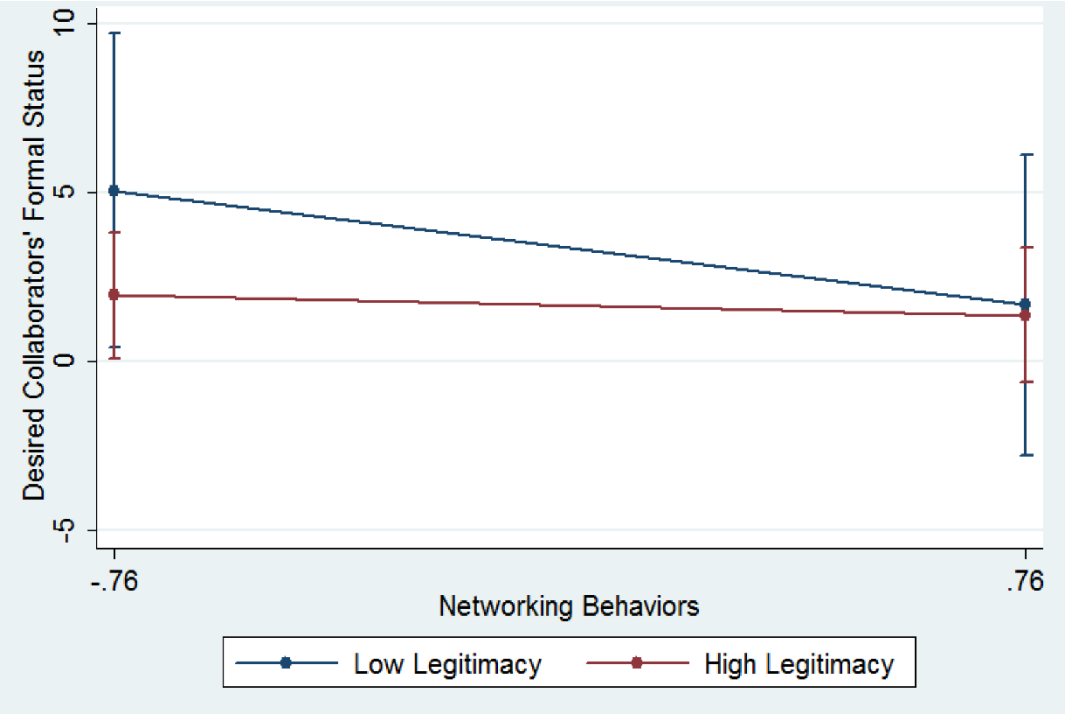


Figure 5.16: Interaction Plot of Networking Behaviors and Legitimacy on Desired Collaborator's Formal Status



As seen in Table 5.17, employees' networking behaviors were unrelated to the informal status of their desired collaborators. This relationship was not significantly different for men and women, or for those with low and high legitimacy. As seen in Table 5.18, employees' networking behaviors were unrelated to the gender homophily of their desired collaborators. This relationship was also not significantly different for men and women, or for those with low and high legitimacy.

Table 5.17: OLS Results of Networking Behavior Moderations on Desired Collaborator's Informal Status

	Informal Status of Desired Collaborators
Controls	
Gender (1 = female)	-1.13 (1.31)
Legitimacy (centered)	0.17 (0.21)
Rank (1 = director)	0.52 (0.43)
Extroversion	-0.48 (0.63)
Friendship Network Homophily	1.06 (1.62)
Friends' Informal Status	0.57 (0.85)
Friends' Formal Status	2.09 (1.63)
Independent Variable	
Networking Behaviors (centered)	4.30 (2.91)
Interaction	
Networking Behaviors (centered) X Gender	-3.96 (2.90)
Networking Behaviors (centered) X Legitimacy (centered)	-0.42 (0.29)
Adjusted R-Squared	0.17
F	0.76†

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

Table 5.18: OLS Results of Networking Behavior Moderations on Desired Collaborator's Gender Homophily

	Gender Homophily of Desired Collaborators
Controls	
Gender (1 = female)	-1.12 (0.68)
Legitimacy (centered)	-0.02 (0.03)
Rank (1 = director)	0.06 (0.57)
Extroversion	-0.03 (0.20)
Friendship Network Homophily	-0.27 (1.35)
Friends' Informal Status	0.02 (0.17)
Friends' Formal Status	0.08 (0.20)
Independent Variable	
Networking Behaviors (centered)	0.24 (1.07)
Interaction	
Networking Behaviors (centered) X Gender	-0.41 (0.85)
Networking Behaviors (centered) X Legitimacy (centered)	-0.02 (0.05)
Adjusted R-Squared	0.06
F	0.53

Note. Standard errors in parentheses, n = 35.
** Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).
† Significant at the 0.10 level (2-tailed).

CHAPTER SIX: DISCUSSION

Individuals with high status have long been recognized as valuable workplace contacts (Brass, 1985; Merton, 1968, 1988; Podolny, 1994) and may be especially important for women to develop personal relationships with in order to overcome their disadvantage in the workplace (Carter & Silva, 2010; Ibarra et al., 2010). This research explores the extent to which women can employ networking behaviors to develop friendships with those with high formal and informal status, which they are unlikely to have without such intentional efforts due to the natural human tendency for homophily (Ridgeway & Smith-Lovin, 1999), uneven hierarchical gender distributions (Gorman & Kmec, 2009; U.S. Bureau of Labor Statistics, 2015), bias routed in gender stereotypes, and other organizational constraints (Hewlett et al., 2010). Scholars have long theorized that women struggle to develop such beneficial high status connections, in part, because men tend to predominate such positions (Ibarra, 1993; Ridgeway & Correll, 2004). As such, this study seeks to disentangle these potential mechanisms of women's network disadvantage to explore the impact women and men's networking behaviors have on their friendships with high status contacts and those of the opposite gender. Thus, this research is at the heart of advancing theorizing that, as Ibarra explained, "views network differences as reflections of purposeful strategic action within a context characterized by structural constraint" (1993: 57).

Results of this study show that, for men, networking behaviors are related to friendship networks of contacts with higher formal and informal status, as well as less gender homophily. For women, networking behaviors are related to friendship networks of contacts with lower formal status and higher informal status, but are unrelated to friendship network gender homophily. Consistent with Ibarra's (1993) theorizing that differences in men and women's workplace networks can likely be attributed to divergent systemic constraints and organizational determinants, as well as discretionary choices made by men and women – I propose two possible explanations for these gender differences.

First, I posit these gender differences could result from differences in the effectiveness of men and women's networking behaviors with regard to cultivating relationships with high ranking colleagues and opposite gender colleagues. Specifically, these gender differences could result from employees perceiving male and female networkers differently, resulting in those with high formal status avoiding relationships with female networkers, as well as women and those with high formal status accepting or even seeking relationships with male networkers.

Results of this study shed some light on this first potential explanation. For instance, the relationship between networking behaviors and friendship network formal status may be positive for men and negative for women because men's networking attempts are perceived positively, while women's networking attempts are perceived negatively. A number of findings from this study suggest this is unlikely. First, this study finds that women are as likely as men to translate their networking behaviors into friendships with those with high informal status, which suggests women's attempts to build high status friendship networks through their networking behaviors do not universally result in such negative perceptions or backlash. Prior research shows that people largely recognize and agree upon the extent to which individuals have informal status (e.g., Schmid Mast & Hall, 2004). Thus, informal status – like formal status – should be apparent and meaningful (for a review, see Hall, Coats, & LeBeau, 2005) to targets of both men and women's networking behaviors and third party observers of their networking attempts. This suggests it is unlikely that these gender differences result from employees would recognize when men and women are employing networking behaviors towards those with high formal status, yet failing to recognize men and women's networking attempts directed towards those with informal status.

Post-hoc analyses also suggest this first explanation that male and female networkers are perceived differently – resulting in differences in others' interest in and willingness to have relationships with them – is unlikely. For women, networking behaviors were related to coworkers' perceptions that they are more warm and are unrelated to perceptions of their competence. In contrast to this first possibility, prior research has suggested that perceived

warmth is a strong driver of others' interest in relationship development; indeed, the effect of perceived warmth has been found to be twice as strong as perceived competence (Singh & Tor, 2008). However, future research should examine the extent to which men and women's networking behaviors are viewed similarly or differently by those with high versus low formal and informal status, as well as by men versus women. It is possible, for instance, that men and those with high formal – but not informal – status view women's networking behaviors as attempts to ingratiate, curry favor, or 'ride coattails' of high status coworkers and thereby avoid relationships with these women, while failing to make such attributions of male networkers.

Furthermore, post-hoc analyses suggest that this explanation is unlikely, not only because perceptions of male and female networkers favor female networks (in terms of warmth) over male networkers, but also because male and female networkers are not differentially desired contacts by coworkers with high formal status (or high informal status) or of the opposite gender. Specifically, post-hoc analyses showed that networking behaviors are positively related to being desired for more collaboration by those of the opposite gender, but this does not differ for male and female networkers. Additionally, the relationship between networking behaviors and being desired for more collaboration by those with high formal and informal status is not moderated by the networker's gender.

A second potential explanation for these gender differences remains. Specifically, these gender differences could result from differences in men and women's networking choices, such that men choose to target their networking behaviors toward coworkers with high formal status while women choose to target those with low formal status. Additionally, men may choose to target their networking behaviors disproportionately towards more of their female colleagues than their male colleagues, while women may choose to target their networking behaviors towards their male and female colleagues in proportions consistent with the contextual availability of their male and female colleagues. Importantly, it is possible that both of these explanations play some part in the gender differences found in this study. As Ibarra noted, networkers' "discretionary

strategies, individuals' tastes, and preferences in network development… [are] responses to a constraining situation" (1993: 80).

Post-hoc analyses begin to examine this second possible explanation: that these gender differences result from men and women's choices regarding who they target with their networking behaviors. I find some evidence that men's networking behaviors being related to higher status friends and women's networking behaviors being related to lower status friends may be due, in part, to men tending to target high status contacts while women tend to target low status contacts with their networking behaviors. As seen in Figure 5.15, male and female networkers significantly differ on the formal status of the contacts they desire additional collaboration with, consistent with this explanation. These results must be interpreted with caution because, while significantly different, networking behaviors were not positively or negatively related to desiring additional collaboration with high formal status contacts for either men or women. Moreover, future research would need to corroborate and extend these findings to show that men act on such desired additional collaboration with higher status contacts by employing networking behaviors toward higher status contacts, while women act on such desired additional collaboration with lower status contacts by employing networking behaviors toward lower status contacts. In other words, the gender differences of focus in this study are the actual resulting relationships of the networking behaviors men and women employ; these actions must be distinguished from men and women's network preferences or desired relationships. While some preliminary research has examined men and women's preferred network contacts (e.g., Stallings, *unpublished dissertation*)[3] and have interpreted findings that men and women have different networks because they prefer different network contacts (cf. Burt, 1998: 15), future

[3] Preliminary research suggests that men and women both prefer high status advisors (Stallings, *unpublished dissertation*), but the extent to which this extends to or differs from individuals' friendship preferences in unknown. Importantly, I theorize that men and women's networking behaviors may result in divergent networks because they act through their networking behaviors to develop divergent relationships. The extent to which individuals act on their preferred choices for various relationships in practice is largely unknown.

research should explore how and why network preferences translate into action: actual networking attempts to develop network connections, including similarities and differences for men and women.

Additionally, the significant (negative) relationship between networking behaviors and friendship network gender homophily for men but not women may result from men choosing to disproportionately target women with their networking behaviors and women choosing to target both men and women in proportion with their contextual availability as potential contacts. Post-hoc analyses do not find that networking behaviors are related to the gender homophily of desired additional collaborators or that this relationship significantly differs for men and women; thus, I find no preliminary evidence to support this possibility. Future research should fully examine this second possible explanation for gender differences in the relationship between networking behaviors and friendship network status and gender homophily by exploring who male and female networkers target with their networking behaviors.

By disentangling the impact of gender and legitimacy on the relationships between networking behaviors and high status and gender-homophilous friendship networks, I was able to contribute to our scholarly understanding of the ways in which men and women can impact the networks they develop through their intentional efforts. Prior theorizing on the impact of gender versus legitimacy on the process by which individuals develop and capitalize on their networks has been unclear and untested. For example, some scholars have suggested that differences in the development and benefits of networks for men and women are driven by a lack of legitimacy (sometimes called credibility; Cabrera & Thomas-Hunt, 2007). Such theorizing and interpreting of gender differences as being gender-neutral (i.e., legitimacy and not gender is driving differences; see for example, Burt, 1998) have failed to distinguish methodologically between gender and legitimacy to validate their explanations. In other words, it is unclear whether and how only gender, only legitimacy, or both gender and legitimacy impact the process by which employees develop and benefit from their networks. Results of this study suggest this process is

not gender-neutral. Specifically, employees' gender did impact the process by which networking behaviors enable employees to develop high status and gender homophilous friendship networks, as well as benefit from those networks with regard to improved performance and job satisfaction – over and above the impact of employees' legitimacy.

Regardless of an employee's gender, results show that for employees with low legitimacy, networking behaviors are related to friendship networks with lower formal status, higher informal status, and unrelated to gender homophily. Notably, these relationships are consistent with the impact of women's networking behaviors on these networks, which may explain why scholars' gender-neutral theorizing and interpretations of findings have been so widely accepted. For employees with high legitimacy, networking behaviors are related to friendship networks with higher informal status, but unrelated to friendship network formal status or gender homophily. As seen in Appendix 3, both employees' gender and legitimacy did interact to impact the relationship between employees' networking behaviors and their friends' informal status. Prior research has suggested that women need to develop personal relationships with high status mentors and sponsors in order to break through the glass ceiling (Carter & Silva, 2010; Lang, 2011), but doing so might require them to have legitimacy (Cabrera & Thomas-Hunt, 2007). Results from this study suggest that women's networking behaviors are related to having higher informal status friends regardless of their legitimacy, but networking is especially beneficial with regard to friends' informal status for women who have not yet gained legitimacy. This suggests that women without legitimacy could employ networking behaviors that enable them to compensate for their lack of legitimacy, possibly even exceeding women with legitimacy, in developing friendship networks with higher informal status. Additionally, for men without (but not with) legitimacy, their networking behaviors are related to higher friends' informal status. This suggests that men without legitimacy may compensate for their lack of legitimacy by employing networking behaviors that will enable them to develop friends with higher informal status. Alternatively, this study suggests that women's networking behaviors are unlikely to result

in friendships with high ranking (i.e., formal status) coworkers regardless of their degree of legitimacy.

Regardless of the legitimacy they have gained or failed to gain, these results suggest that women's networking behaviors are likely to be unrelated to the gender-homophily within their network. However, while women's networking behaviors were not related to their gender homophily, networkers were more likely to be desired for additional collaboration by those of the opposite gender. This may suggest that women simply target their networking behaviors towards their male and female coworkers in proportion to their contextual availability, but that women's networking behaviors targeted towards men are or would be effective. Future research should examine the extent to which women's efforts to target male coworkers with their networking behaviors result in relationship development. Additionally, men's networking behaviors were related to less friendship network gender homophily, thereby impacting female's networks. As such, motivating men to engage in networking may also provide an effective means of enabling women to develop cross-gender relationships.

Overall, these findings suggest that gender differences in networks are due not only to natural human tendencies (e.g., homophily) or organizational constraints, but also to the differential impact of men and women's intentional networking behaviors. Future research should fully examine the extent to which the latter is due to divergent reception to men and women's networking behaviors and/or men and women's divergent choices regarding who to target with their networking behaviors. Future research can also move our theoretical knowledge forward by examining whether these findings are consistent when examining men and women's instrumental and multiplex networks as men and women have been found to engage in divergent strategies with regard to developing expressive and instrumental networks (Ibarra, 1992).

Counter to my expectations, having high status friends did not provide performance benefits in this setting. Specifically, friendship network formal and informal status did not impact performance (main effect) or men's performance (interaction), although both friendship network

formal and informal status were negatively related to perceptions of women's performance (interaction)[4].

Friendship network formal and informal status generally had the expected effect on men and women's job satisfaction. While high status friends afford access to tangible and intangible resources that might provide employees with benefits and increase their job satisfaction, high status friends also provide opportunities for social comparison that might diminish employees' self-esteem, thereby diminishing their job satisfaction. Since men are more attuned to social status hierarchies (Tannen, 1994), as well as expect and are expected to hold comparatively high status positions due to descriptive and prescriptive gender stereotypes (Eagly, 1987), I theorized that the benefits of resources and the detriment of social comparison on men's job satisfaction would exhibit countervailing forces on men's job satisfaction. I hypothesized that these countervailing forces would still result in a net positive impact on men's job satisfaction.

[4] I consider two possible explanations for friends' status not being related to performance in this study. First, this may be a function of the way friends' status and performance were measured. For instance, Kilduff and Krackhardt (2001) also examined a reputational measure of performance (i.e., coworkers' aggregated perceptions of an actor's performance). Their study found that being perceived as having a high status friend was related to higher reputational performance, while actually having a high status friend was unrelated to reputational performance. The negative relationship between friendship network status and performance for women indicates that actual network relationships with high status coworkers do impact reputational performance, which suggests we should reject this potential explanation. Second, prior research has found that high status connections are indicators of an actor's quality only to the extent that actors' output quality is not clear (Podolny, 2001). In this setting, output quality or performance is the quality of patient care and teaching provided, which may be evident to a physician's coworkers. Semi-structured interview data suggest that the effectiveness of transmitted knowledge through teaching should be easy to identify by the coworkers rating physicians in this teaching hospital. Additionally, these physicians' coworkers were generally highly educated, having received degrees in medical sciences, and thus were likely to have insight into the quality of patient care provided. As such, high status connections may not generally impact reputational performance – coworkers' aggregated perceptions of an employee's performance – because coworkers don't need to rely on network-related indicators of an employee's performance (i.e., this setting has low *altercentric uncertainty*; Podolny, 2001). In other words, if the output quality that constitutes performance is clear in this setting, high status connections may not impact reputational performance because coworkers don't need to rely on network-related indicators of an employee's performance. Again however, this does not explain the negative relationship between women's friendship network formal and informal status and their performance, for which I have no satisfactory explanation.

However, results suggest that the social comparison processes that diminish men's self-esteem and reduce their job satisfaction may be stronger than I theorized. Specifically, for men, informal status is related to lower job satisfaction and formal status is unrelated to job satisfaction.

Alternatively, women are less attuned to social status hierarchies (Tannen, 1994) and are expected to be lower status and act communally based on gender stereotypes (Eagly, 1987). As such, when women compare themselves with their high status friends, this is less likely – or even unlikely – to result in diminished self-esteem relative to their male counterparts. Thus, I hypothesized that the relationship between women's friendship network status and their job satisfaction would be positive, and results for women's friends' formal and informal status supported this hypothesis. As such, this research contributes to our dearth of knowledge regarding the impact of networks on employees job satisfaction.

Having a disproportionate amount of same-gender friends at work – friendship network gender homophily – was related to higher reputational performance (but not job satisfaction), and this did not differ for men and women. Vast research has shown that men and women tend to have gender homophilous networks at work (for a review, see Cabrera & Thomas-Hunt, 2007), including research that suggests that homophily tends to result in less advantageous networks for women (Brass, 1985; Ibarra, 1992). Scholars have long suggested this results, in part, because women develop fewer connections with the plethora of senior status men (Ibarra, 1997; McPherson & Smith-Lovin, 1986). Yet disentangling these potential mechanisms of women's network disadvantage – the status versus gender of men and women's connections – allows us to examine the extent to which gender homophily provides disadvantages or advantages to men and women. This study showed that employees' gender homophily within friendship networks provides performance advantages, and that this advantage does not differ based on employees' gender. This suggests gender homophily – which is prevalent and facilitates communication, coordination of activity, and trust (McPherson, Smith-Lovin, & Cook, 2001) – also results in reputational performance advantages for both men and women.

Prior research has suggested that gender and/or legitimacy impact the process by which employees gain and benefit from their workplace networks. Vast organizational research has suggested that gender impacts the process by which employees gain and benefit from their workplace networks (cf., Ridgeway & Smith-Lovin, 1999). Some scholars have theorized that these differences are in fact gender-neutral, such that legitimacy rather than gender are driving these differences (cf., Burt, 1998). In other words, organizational scholars have contended that women may be disadvantaged in this process of developing (Kanter, 1977; Ridgeway & Smith-Lovin, 1999) and benefiting (Burt, 1998) from workplace networks because they lack legitimacy. Such gender-neutral theorizing or interpreting of results implicitly or explicitly proposes that if women can simply gain legitimacy, their disadvantage in developing or benefiting from such relationships will dissipate; this research suggests that this simplistic proposition is largely inaccurate. For instance, results suggest that gender – but not legitimacy – moderate the relationships between networking behaviors and friendship network gender homophily, networking behaviors and perceived warmth, friends' formal status and reputational performance, and friends' informal status and job satisfaction. As such, organizational legitimation interventions (cf., Hogue et al., 2002) or recommendations to help women gain legitimacy (cf., Burt, 1998; Ibarra, 1997: 99) would do little to help women translate their own friendship networks of high formal status coworkers into stronger reputations as high performers, for example.

A final line of theorizing suggests that *both* gender and legitimacy impact the process by which employees' gain and benefit from their workplace relationships (Hogue et al., 2002; Ridgeway & Berger, 1986). Results of this study support that contention and contribute to our understanding of the ways in which gender only, legitimacy only, and both gender and legitimacy impact the development of and benefits from high status and gender homophilous friendship networks. I find many instances in which the process by which employees translate their networking behaviors into high status and gender homophilous friendship networks, or capitalize

on those networks in terms of job satisfaction or performance differs based on employees' gender *and* legitimacy. Results show one instance in which these relationships worked the same way for women and those with low legitimacy. Specifically, for women and those with low legitimacy, employing networking behaviors are related to lower formal status friends; for men, employing networking behaviors are related to higher formal status friends. However, the distinction between the impact of gender and legitimacy remains vital even in such a situation because the practical implications and interventions to help women and/or those with low legitimacy are distinct.

Nevertheless, this process largely does not appear to work the same way for women and those of low legitimacy. Networking behaviors are related to higher friendship network informal status for men and women with low legitimacy, as well as women with high legitimacy, but unrelated to friendship network informal status for men with high legitimacy. Networking is most beneficial in terms of improving friendship network informal status for women with low legitimacy. Having friends with higher formal status was negatively related to reputational performance for women, but positively related to reputational performance for those with high and low legitimacy. Having friends with higher informal status is related to higher job satisfaction for women and those with high legitimacy, but related to lower job satisfaction for men and those with low legitimacy. Overall, this work suggests scholars need to distinguish between and accounting for both gender and legitimacy in the process by which employees develop and benefit from their workplace networks of relationships. This line of work can not only advance our understanding of how men and women can capitalize on their investments in networking and developing advantageous networks, but can provide more nuanced and accurate practical advice for women and men who want to overcome gender- and legitimacy-related obstacles at work to enhance their workplace success and break through the glass ceiling.

Appendix 1: Detailed Literature Review on Gender and Networking Behaviors

Citation	Networking Definition	Design, Sample	Findings
Chen, Doherty, & Vinnicombe (2012) *Career Development International*	Networking Activities: [Did not formally define networking]	Qualitative interviews, 18 female Taiwanese EMBA alumni	The female interviewees believed networking to have benefits, such as gaining professional support, sharing knowledge, exchanging information, expanding contacts, seeking career advice and career advancement, gaining visibility among senior management. Most women reported that building networks was a benefit of their EMBA and that networking to seek career advancement and gain visibility was motivation for joining the program. Interviewees viewed learning about job opportunities was a benefit of networking with alumni, such as through social clubs. Women proactively planned networking events in order to maintain their connections and "highlighted their sense of enjoyment of attending reunions which enabled them to maintain relationships with a valued, long-term group of friends" (pg. 655).
Eddleston, Baldridge, & Veiga (2004) *Journal of Managerial Psychology*	Exposure To Powerful Networks: "A proactive way for individuals to develop their careers through such means as making contacts with others to obtain the necessary resources or developmental experiences and to receive information regarding job opportunities" (pg. 366; partially drawn from Forret & Dougherty, 2001)	Quantitative surveys, 338 matched cross-gender pairs	Exposure to powerful networks was assessed as visibility to top management; respondents indicated the percentage of their average work week that they spent in activities that brought them into direct contact with top management (Veiga, 1983). Beliefs regarding the efficacy of mentoring positively influenced both men and women's exposure to powerful networks. Exposure to powerful network contacts predicted promotions offered (which in turn predicted compensation level through its impact on managerial level) for male managers, but not female managers.
Forret & Dougherty (2001) *Group and Organization Management*	Networking Behaviors: "Individuals attempts to develop and maintain relationships with others who have the potential to assist them in their work or career (pg. 284)"	Quantitative surveys, 418 U.S. business school graduates	Gender was not related to engaging in networking behaviors. However, gender significantly related to enaging in socializing (considered a subdimension of networking behaviors), such that males were more likely to engage in socializing than females.
Forret & Dougherty (2004) *Journal of Organizational Behavior*	Networking Behaviors: "Individuals attempts to develop and maintain relationships with others who have the potential to assist them in their work or career" (pg. 420; drawn from Forret & Dougherty, 2001)	Quantitative surveys, 418 U.S. business school graduates	Maintaining external contacts, engaging in professional activities, and increasing internal visibility were positively related to number of promotions, total compensation and perceived career success. The relationship between engaging in professional activities and total compensation for females was negative, while for males the relationship was positive. Increasing internal visibility was significantly related to number of promotions and total compensation for men, but not for women. Increasing internal visibility was significantly related to perceived career success for women, but not for men. Engaging in professional activities was significantly related to perceived career success for men, but not for women. Socializing was also positively related to perceived career success, and participating in community activities was also positively related to number of promotions.
Gould & Penley (1984) *Organizational Behavior and Human Performance*	Networking: "Developing a system or "network" of contacts inside and/or outside the organization, thereby providing relevant career information and support for the individual" (pg. 246)	Quantitative surveys, 414 employees of a large municipality	The authors found that networking was positively related to salary progression for managers only. They found no gender differences regarding the extent to which men and women engaged in networking.

Appendix 1: Continued

Citation	Networking Definition	Design, Sample	Findings
Hewlett, Peraino, Sherbin, & Sumberg (2010) *Harvard Business Review*	Networking: [Did not formally define networking]	Quantitative surveys, 4,037 mixed-gender white-collar employees; Qualitative interviews and focus groups	The authors found that women are more likley to believe their most recent promotion resulted from their track record and credentials and less likely to believe it resulted from personal connections relative to men. Women were also more likely to think hard work, long hours, and education credentials drove promotions at their organizations than men. Many women who felt relationships could provide work and career benefits did not prioritize networking. The majority of working mothers would engage in after-hours networking if their family and domestic responsibilities didn't constrain their timeand/or they had enough advance notice to arrange 'coverage.' Interviews suggested after-hours socializing and other networking opportunities often arrize spontaneously and organically. While single and childless women felt they had more time to engage in networking, many single and childless women were less likley to be invited to networking situations than women who were married or had children. Many women were unwilling to ask contacts for resources due to concerns that they would appear to be self-serving or be turned down. While most women expressed willingness to provide resources to others, women had more "difficulty asking a close friend for help landing a job or closing a business deal" relative to men. Many women felt that getting ahead based on "who you know" is an inherently unfair or 'dirty' tactic (pg. 18). The authors found evidence that women's reluctance to seek out and actively network with senior colleagues is often justified. "Sponsorship, which often involves an older, married male spending one-on-one time, often off site and after hours, with a younger, unmarried female, can look like an affair; and the greater the power disparity between the male and female, the more intense the speculation becomes that the relationship is more than professional. If the woman is subsequently promoted, her achievement will be undermined by office gossip that she earned it illicitly. But the senior man does not walk away scot-free. If it appears he spent too much time with the junior female, he incurs the risk of a sexual harassment suit or even dismissal. In short, because sponsorship can be misconstrued as sexual interest, highly qualified women and highly placed men avoid it" (pg. i).
Lambert, Eby, & Reeves (2006) *Journal of Career Development*	Networking Intensity: "The frequency and thoroughness with which individuals contact other people to get information, leads, or advice about job opportunities and the job search process" (pg. 357)	Quantitative surveys, 146 recently reemployed mixed-gender white-collar workers	Gender did not predict the intensity with which individuals engage in networking and or their own perception that their networks were diverse or provided them with valuable information.
Linehan (2001) *Journal of Management Development*	Networking: "Maintaining contacts with a variety of colleagues for the purpose of mutual work benefits" (pg. 823)	Qualitative interviews, 50 global senior female managers	Findings showed that most women felt that women had to worker harder to develop valuable relationships with male colleagues because they had less access to the informal networking activities/situations that tended to involve "male bonding…after work hours, during sporting events, and in clubs and bars which they felt excluded from" (p. 825). Interviewees also tended to believe that networking was most vital for women who, for example, likely had less access to mentors. Interviewees also believed women had less time to engage in networking due to familial responsibilities. Many also felt that formal women's networking groups that didn't enable access to developing relationships with men were ineffective (see also Davidson & Cooper, 1992).

Appendix 1: Continued

Citation	Networking Definition	Design, Sample	Findings
Linehan & Scullion (2008) *Journal of Business Ethics*	Networking: "Maintaining contacts with a variety of colleagues for the purpose of mutual work benefits" (pg. 34)	Qualitative interviews, 50 global senior female managers	Findings suggest many women feel that "men, as the dominant group, may want to maintain their dominance by excluding women from the informal interactions of mentoring and networking" (pg. 31). Interviewees felt male managers spent more time networking after work hours than female managers partially because women's additional family and home commitments provided them with less time to network. Most felt formal networking groups were valuable in providing beneficial relationships and becoming socialized in formal and informal organizational norms, especially if the formal networking groups were mixed gender and/or included "established male-dominated groups, as power in organisations is still predominantly held by men" (pg. 35).
Macintosh & Krush (2014) *Journal of Business Research*	Peer, Professional, and Customer Networking: "Individuals' attempts to develop and maintain relationships with others who have the potential to assist them in their work or career" (pg. 2628; drawn from Forret & Dougherty, 2001)	Quantitative survey, 179 mixed-gender salespeople	Networking behaviors were related to job satisfaction and organizational commitment. For men, the positive relationship between networking with those within one's organization and organizational commitment was mediated by job satisfaction. For women, networking with those within one's organization not related to job satisfaction but was directly related to organizational commitment. Networking with those outside of one's organization and with customers predicted job satisfaction for women, but not men.
Misner, Walker, & De Raffele (2012)	Networking: [Did not formally define networking]	Quantitative and qualitative survey results, About 12,000 mixed-gender employees	Men and women overwelmingly felt that networking had "played a role in their success," although women were slightly more likely than men to feel this way (pg. 31). When networking, most people believed it was "better to build a relationship first, then focus on business," although women were slightly more likely to believe this. Among the minority that felt it was "better to focus on business then build a relationship later" when networking, men were slightly more likely to hold this belief (pg. 73). While most people felt that familial responsibilities were rarely an obstacle to hinder engaging in networking, women were more likely to feel this was an obstacle than men. While most people never felt unsafe attending evening networking events, women were much more likely to feel unsafe than men. Qualitative responses suggest this is partially due to the possibility of relationships developing at such events being misconstrued as sexual interest by networking targets or third parties (pg. 123). Most individuals are at least somewhat comfortable networking. Only about 5% of those surveyed were generally uncomfortable networking. About 12% were sometimes to always uncomfortable networking with the opposite gender, while about 52% believed the average person was sometimes to always uncomfortable networking with the opposite gender (no gender differences). Women were more likely to believe their greatest strengths in networking were connecting other people, developing quality relationships, and meeting new people, while men were more likely to believe their greatest strengths in networking were following up and turning relationships into business opportunities (pg. 156).
Sturges, Conway, & Liefooghe (2010) *Group and Organization Management*	Networking Behaviors: [Did not formally define networking]	Quantitative survey, 257 mixed-gender employees	For men, perceived organizational support (POS) had a positive relationship with networking behaviors. For women, POS had a negative relationship with networking behaviors. For men, leader-member exchange (LMX) had a negative relationship with networking behaviors. For women, LMX had a positive relationship with networking behaviors. No direct effect of gender on networking behaviors was found.
Shortland (2011) *Career Development International*	Networking: [Did not formally define networking]	Quantitivative survey, 52 women expatriates; Qualitative interviews, 9 Human Resources staff and 18 women expatriates	Female expatriates experiencing a newly implemented employer-initiated formal women's networking group showed that women felt that such a women-only formal networking group could provide gender-neutral insights (e.g., learning of job vacancies, understanding country and lifestyle, dual career and family issues) and women-specific insights (e.g., how women are received/accepted in the culture, how exemplary women succeeded). Interviewees also worried that women-only formal networking groups might create an artificial divide between the genders, being perceived as exclusionary, and resulting in backlash from men.

Appendix 1: Continued

Citation	Networking Definition	Design, Sample	Findings
Van Emmerik, Baugh, & Euwema (2005) *Career Development International*	Networking Activity: "Building and nurturing of personal and professional relationships to create a system of information, contact, and support thought to be crucial for career and personal success" (pg. 313)	Quantitative survey, 262 mixed-gender Dutch bank managers	Individuals who were more involved in networking activities were less likely to serve as a mentor. The positive relationship between networking activity and being a mentor was stronger for men than for women.
Van Emmerik, Euwema, Geschiere, & Schouten (2006) *Women in Management Review*	Formal and Informal Networking: The building and nurturing of personal and professional relationships to create a system of information, contact, and support and altogether this is thought to be crucial for career and personal success" (pg. 55)	Quantitative survey, 260 mixed-gender Dutch bank managers	Results show that the female respondents engaged in more informal networking (measured as discussing work-related issues with colleagues, supervisors, coaches, and others) and participated in more formal networking groups than male respondents. Participating in informal networking and formal networking groups was positively related to career satisfaction (measured as a combination of both job and career satisfaction) for both men and women, but this relationship was significantly stronger for men than for women.
Van Hoye, van Hooft, & Lievens (2009) *Journal of Occupational and Organizational Psychology*	Networking Behavior Frequency: "Individual actions directed towards contacting friends acquaintances, and other people to whom the job seeker has been referred for the main purpose of getting information, leads, or advice on getting a job" (pg. 662; drawn from Wanberg et al., 2000)	Quantitative survey, 1,177 unemployed Flemish job seekers	Engaging in more frequent networking behaviors was positively related to network size (number of social ties who might help job seeker find a job) and tie strength, but not tie status (educational, occupational, general life status). Women spent slightly less time networking than men.

Appendix 2. OLS Results of Friendship Network Gender Homophily on Employees' Job Satisfaction

	Employees' Job Satisfaction
Controls	
Gender (1 = female)	0.55 (0.74)
Legitimacy (centered)	-0.01 (0.05)
Rank (1 = director)	0.51 (0.53)
Extroversion	0.32 (0.13)*
Friends' Formal Status	0.26 (0.14)+
Friends' Informal Status	-0.17 (0.06)*
Independent Variable	
Friendship Network Homophily (centered)	0.66 (0.74)
Interaction	
Friendship Network Homophily (centered) X Gender	-2.35 (1.71)
Friendship Network Homophily (centered) X Legitimacy (centered)	-0.04 (0.04)
Adjusted R-Squared	0.34
F	2.98*
VIF	3.00

Note. Standard errors in parentheses, $n = 35$.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

+ Significant at the 0.10 level (2-tailed).

Appendix 3. OLS Results of Three-Way Interaction Between Networking Behaviors, Gender, and Legitimacy on Friends' Informal Status

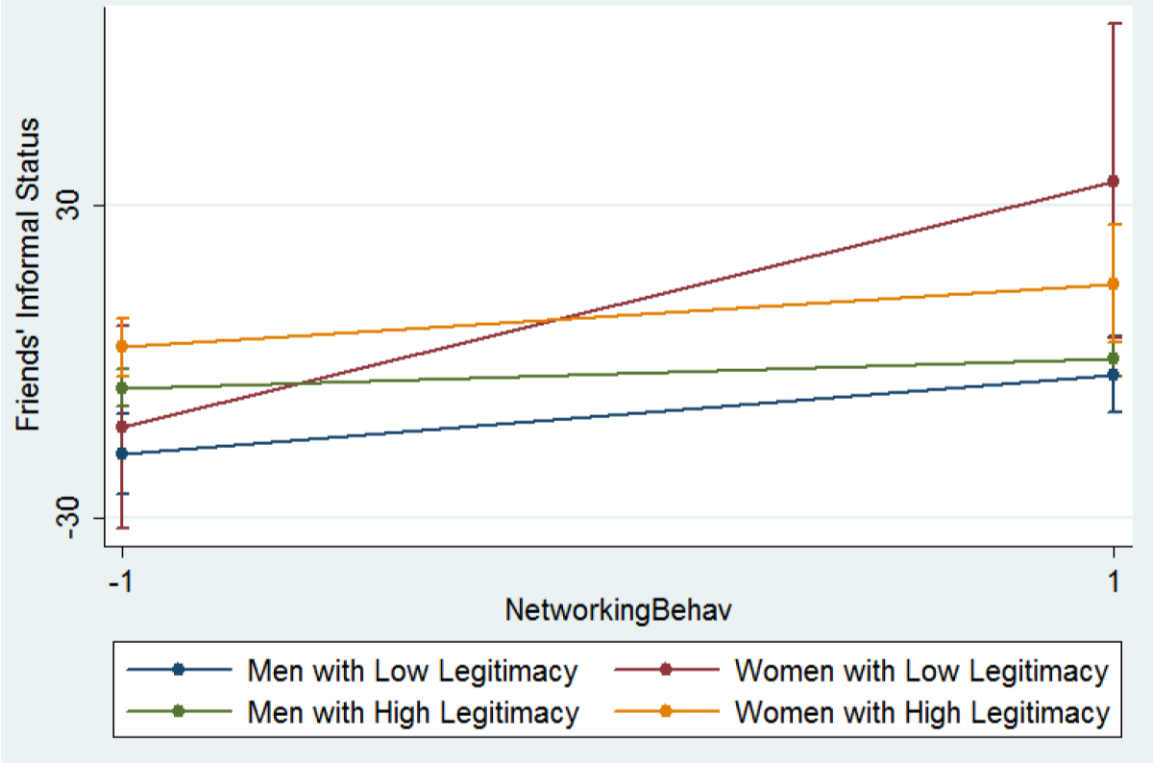
	Friends' Informal Status
Controls	
Gender (1 = female)	2.02 (1.74)
Legitimacy (centered)	0.19 (0.09)*
Rank (1 = director)	0.06 (1.67)
Extroversion	0.39 (0.50)
Friendship Network Homophily	-1.09 (1.92)
Gender X Legitimacy (centered)	-0.53(0.31)
Independent Variable	
Networking Behaviors (centered)	3.02 (1.04)**
Interaction	
Networking Behaviors (centered) X Gender	0.58 (0.98)
Networking Behaviors (centered) X Legitimacy (centered)	-0.39 (0.10)*
Networking Behaviors (centered) X Gender X Legitimacy (centered)	-0.67 (0.36)†
Adjusted R-Squared	0.55
F	3.96**
VIF	3.93

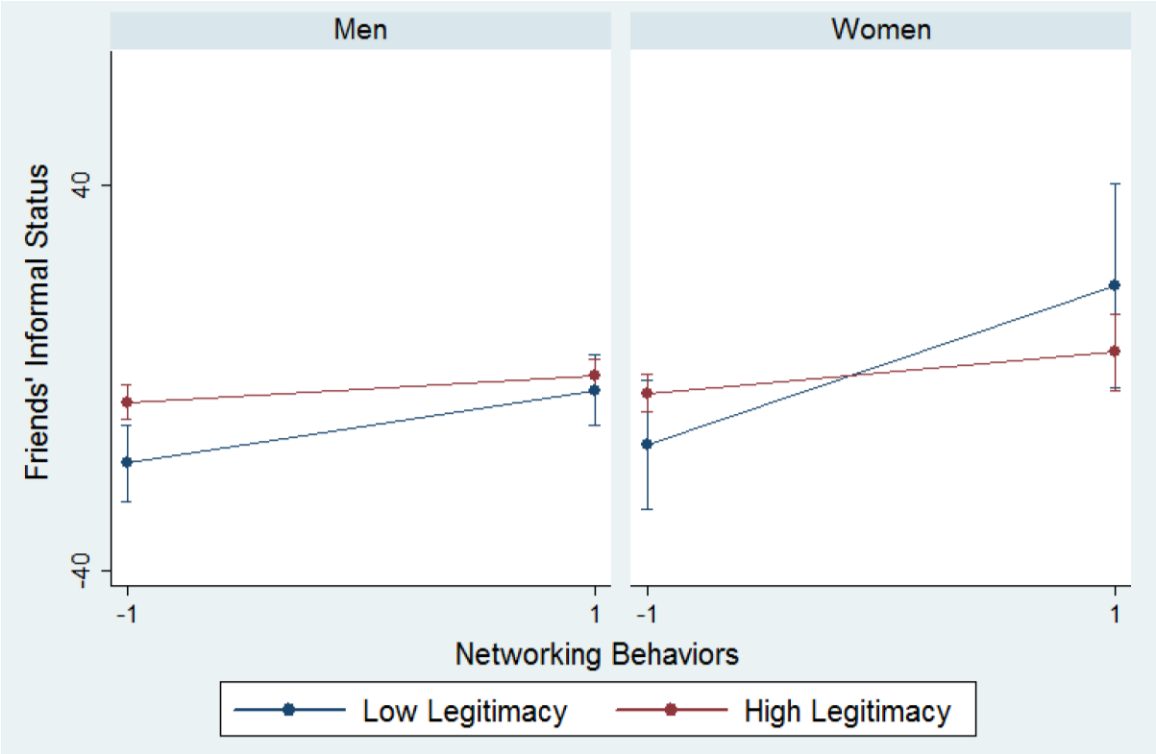
Note. Standard errors in parentheses, n = 35.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

† Significant at the 0.10 level (2-tailed).





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VITA

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EDUCATION

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REFEREED PUBLICATIONS

Sung, W., **Woehler, M.**, Fagan, J., Floyd, T., Grosser, T., & Labianca, J. (2017). Individuals' responses to organizational mergers: Pathways to organizational identification and attachment. *Journal of Applied Psychology, 102*(6), 910-934.

Cullen-Lester, K. L, **Woehler, M.**, & Willburn, P. (2016). Network-based leadership development: A guiding framework and resources for management educators. *Journal of Management Education, 40*(3), 321–358.

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SELECTED MANUSCRIPTS UNDER REVIEW / WORKING MANUSCRIPTS

Grosser, T. J., Obstfeld, D., **Woehler, M.**, Labianca, J., & Borgatti, S. P. A sociopolitical perspective on employee innovativeness and job performance: The role of political skill and network structure. (Under third review at *Organization Science*)

Woehler, M., Giordani, F, Taylor, W., & Mehra, A. Should I stay or should I go?: Firm choices in network forms of organization. (Preparing manuscript for *Organization Science*)

Floyd, T., Grosser, T., Shaw, N., Fagan, J., **Woehler, M.**, Sung, W., Labianca, J. A social network view of the unfolding model of turnover. (Preparing manuscript for *Academy of Management Journal*)

Woehler, M., Sung, W., Fagan, J., Floyd, T., Grosser, T., & Labianca, J. The co-evolution of networks and personality. (Preparing manuscript for *Journal of Personality and Social Psychology*)

Lopez-Kidwell, V., **Woehler, M.**., & Miller, C. D. I feel therefore I connect: The social networks of employees with higher emotional abilities. (Preparing manuscript for *Journal of Applied Psychology*)

FUNDED PROJECTS

Co-PIs: **Woehler, M.**, Choi, E. W., Lopez-Kidwell, V. "The coevolution of social networks and innovation." Funded by University Hospitals Health Systems, Inc., for $52,000, 2015-2017. In data collection stage (observation, semi-structured interviews, and first survey completed).

INVITED TALKS AND WORKSHOPS

Woehler, M., Coutino, J. A., & Borgatti, S. P. (2017, May). A hands-on introduction to analyzing social networks with UCINET & Netdraw. Co-organizer for the 37th Annual International Sunbelt Social Network Conference, Beijing, China.

Woehler, M., Cullen-Lester, K. L., Howell, J. W., Porter, C. M., & Maupin, C. K. (2016, April). IGNITE + panel session: Opportunities and challenges of applied network analysis. Invited Panelist at The 31st Annual Conference of the Society for Industrial and Organizational Psychology, Anaheim, CA.

CONFERENCE PRESENTATIONS

Woehler, M., Giordani, F, Taylor, W., & Mehra, A. (2017, May). Network perception, reality, and accuracy: Firm choices in network forms of organization. Paper presented at the 37th Annual International Sunbelt Social Network Conference, Beijing, China.

Wang, J., & **Woehler, M.** (2017, May). Do men and women climb different career ladders?: Chinese hosts' career trajectories across TV stations. Paper presented at the 37th Annual International Sunbelt Social Network Conference, Beijing, China.

Woehler, M., Giordani, F, Taylor, W., & Mehra, A. (2017, February). Should I stay or should I go?: Firm choices in network forms of organization. Paper presented at the Mid-south Management Research Consortium, Oxford, MS.

Woehler, M., Sung, W., Fagan, J., Floyd, T., Grosser, T., & Labianca, J. (2016, April). The co-evolution of networks and personality. Paper presented at the 36th Annual International Sunbelt Social Network Conference, Newport Beach, CA.

Taylor, W., & **Woehler, M.** (2016, April). The ups and downs of network churn: The impact of employee legacy organization on the relationship between network change and employee ability to handle a corporate acquisition. Paper presented at the 36th Annual International Sunbelt Social Network Conference, Newport Beach, CA.

Cullen-Lester, K. L, **Woehler, M.**, & Willburn, P. (2016, April). Network-based women's leader development. Paper presented at the 31st Annual Conference of the Society for Industrial Organizational Psychology, Anaheim, CA.

Sung, W., **Woehler, M.**, Fagan, J., Floyd, T., Grosser, T., & Labianca, J. (2015, August). Individuals' responses to organizational mergers: Pathways to organizational identification and attachment. Paper presented at the Academy of Management Annual Meeting, Vancouver, BC Canada.

Lopez-Kidwell, V., Miller, C. D., & **Woehler, M.** (2015, August). I feel therefore I connect: The social networks of employees with higher emotional abilities. Paper presented at the Academy of Management Annual Meeting, Vancouver, BC Canada.

Sung, W., **Woehler, M.**, Fagan, J., Floyd, T., Grosser, T., & Labianca, J. (2014, February). Individuals' responses to organizational mergers: Pathways to organizational identification and attachment. Paper presented at the Mid-south Management Research Consortium, Memphis, TN.