The gendered nature of role model status: an empirical study

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Abstract

Purpose – The purpose of this paper is to understand better the gendered nature of role model status within organizations. The paper aims to argue that women require organizational legitimacy to be perceived as a role model, whereas men rely primarily on the strength of social ties within their friendship networks.

Design/methodology/approach – An empirical study of admissions department employees at a large eastern university within the USA was conducted. Using a social network approach, participants were asked to identify advice, friendship and role model relationships and provide information about awards and recognition received from the organization.

Findings – The results showed that, in order to be perceived as a role model, females needed to give (but not ask for) advice, earn organizational rewards, hold leadership positions in the organization, and maintain strong ties with other employees. Males only had to have a number of friendship or advice ties to be seen as a role model.

Research limitations/implications – The findings are consistent with the idea that females need to establish formal organizational status or legitimacy (e.g. leadership roles, rewards) in order to be perceived as a role model. In addition, balancing advice-giving versus advice-seeking is more important for female compared with male role models.

Originality/value – This paper examines the concept of role modeling using a social network analysis, thus providing new insight about the impact of advice and friendship network centrality on role model status in organizations.

Keywords Gender, Management roles, Networking, Individual development

Paper type Research paper

Changes in employer-employee relations, organizational structure and global diversity of the workforce have had a major impact on today's career environment (Arthur and Rousseau, 1996; Hall and Mirvis, 1996; Higgins and Kram, 2001). The dynamic nature of today's organizations often means that individuals must be more actively involved in managing their careers than was necessary years ago (Anderson and Schalk, 1998; Higgins and Kram, 2001; Hiltrop, 1995). Recognizing the importance of these changing career dynamics, recent research has highlighted the need for employees to form their own networks of informal developmental relationships rather than relying solely on formal relationships (e.g. supervisors) provided by the organization (Higgins and Kram, 2001).

Among key developmental relationships that have received some attention is that of a role model-employee connection (Gibson and Barron, 2003; Gibson, 2004). Gibson (2004, p. 136) defines a role model as a "cognitive construction based on the attributes of people in social roles that an individual perceives to be similar to in terms of

attitudes, behaviors, goals, or status position to him or herself to some extent and desires to increase perceived similarity by emulating those attributes". Research by psychologists and organizational scholars suggests that having role models is important to an individual's growth and development because they serve as a source of learning, motivation, self-definition and career guidance (Erikson, 1985; Gibson, 2004; Krumboltz, 1996; Lockwood and Kunda, 1999; Schein, 1978). Gibson's definition clearly suggests that role models are people who are similar to the self and thus, the individual is able to learn from, is motivated by, and is able to define his/her sense of self by connecting with these role models.

If similarity to the self is an important aspect of role model status, then the low number of women in leadership positions within many organizations poses some important challenges for this valuable developmental relationship. Within the literature on gender in organizations, it is clearly argued that notions of leadership, success and status are gendered constructs influenced by organizational culture, gender discrimination and the skewed proportion of men relative to women in formal leadership roles within organizations (Ely, 1994; Kanter, 1977; Murrell and James, 2001). As Ragins (1997) argues, women may benefit more than men from gender-specific examples of success especially given the low number of women in leadership roles. Meyerson and Fletcher (2000) point out that organizational culture outlines an acceptable "code of conduct" that not only defines behavior, but also frequently labels favorable versus unfavorable attributes in a gender-specific way. These implicit codes of conduct define the attributes necessary for role model status that are different for men compared to women in organizations which impacts the likelihood that women will be perceived as role models. For example, Gibson and Cordova (1999) found that even when more females were present within the organization, other criteria or attributes influenced the selection of women (relative to men) as role models even among women themselves.

This raises an important question that is the focus of our research: "Are there differences in the criteria that influence whether women are seen as role models in the organization and do these criteria differ for men who are seen as role models?". In order to address this question, we draw on research from both the mentoring and social networks literatures. First, mentoring research often includes role modeling as one of the functions of this relationship (see O'Neill, 2002). Previous work demonstrates that gender influences access to and the outcomes of these developmental relationships (see Ragins, 1999; Murrell and Zagenczyk, 2006). Women who have access to mentoring (including role modeling) generally are promoted more quickly and earn higher salaries than women who do not have access to these critical relationships (Dreher and Chargois, 1998; Dreher and Cox, 1996; Giscombe *et al.*, 2005). In addition, women are more likely to be influenced by female than male career exemplars (Lockwood, 2006). Thus, role models are important sources of instrumental and social support throughout one's career development; however the availability of female role models may be influenced by the gendered nature of how role models are defined within the specific organizational context.

Second, social networks research generally shows that women are marginalized and as a result are perceived as being less powerful and having greater difficulty in gaining access to important career or professional resources (Brass, 1985; Burt, 1998; Ibarra, 1992, 1993; Mehra *et al.*, 1998). One of the key barriers that is frequently cited as

blocking women's access to advancement is the lack of organizational role models (see Catalyst, 2001). This creates what some have called an "opportunity" gap that prevents women and other under-represented groups from advancing at the same rate as men (Hayes-James, 2000). In addition, Ragins (1997) argues quite convincingly that role modeling and other developmental relationships are not only about career advancement and support but are also about the sharing and distribution of power within organizations. Thus, gaining access to role models and being seen as a role model is related to issues of power, status and legitimacy, especially for women and for people of color.

Based on these lines of research, we expect that in order to be perceived as role models, women will have to do more to demonstrate their legitimacy than will men. More specifically, to be recognized as a role model, females must achieve more recognition within the formal structure of the organization as a way of validating their status as experts, top performers or leaders. To the contrary, establishing legitimacy will be less important for men, who will gain role model status through their relationships or social networks with others within the organization. This expectation is consistent with previous work that finds women feel they are left out of the informal networks within organization and thus, shut out of the "old boys network" (Giscombe et al., 2005). In order to explore the gendered nature of role model status, we utilize social network constructs and methodology, particularly centrality within both friendship and advice networks. These relationships are explored in a study of admissions department employees at a large eastern university in the USA.

Defining role models

Gibson (2004, p. 136) defined a role model as a "cognitive construction based on the attributes of people in social roles that an individual perceives to be similar to in terms of attitudes, behaviors, goals, or status position to him or herself to some extent and desires to increase perceived similarity by emulating those attributes". This implies that role models serve three main functions to individuals: motivation, self-definition, and learning. The motivation and self-definition component of role models draws on role identification theories. Role identification theories argue that people are attracted to others whom they believe are similar to themselves in terms of attitudes, behaviors, goals, or status, and they are motivated to make themselves similar to these individuals through observation and learning (Kohlberg, 1963). The idea of learning draws upon social learning theories, which suggest that people pay attention to role models because they may be useful in learning new tasks, skills or norms and making sense out of one's environment (Bandura, 1986).

Role models differ from traditional developmental relationships in several respects. First, role models are informally selected by organizational members themselves rather than formally assigned by the organization (Gibson, 2004). Second, a person-role model relationship does not necessarily require direct interaction between the individual and the role model. According to Gibson, role modeling can require just identification on the part of an individual who observes a model. As a result, individuals are able to benefit by observing role models who have different skills and styles while expending less time and effort. Because role models afford flexibility, efficiency, and access to a wider array of individuals with diverse skill sets (Ibarra, 1999), maintenance of role

model relationships may give employees a competitive edge in the changing career environment.

Indeed, an employee's career success may depend on the availability of quality role models. Because role models can impact employee motivation, self-definition, and learning, organizational researchers are beginning to treat them as an important developmental relationship. A number of experimental studies present "hypothetical" role models and examine how characteristics of the role models, such as similarity, performance level, or gender can impact individuals' likelihood of emulating them (Lockwood *et al.*, 2004, 2002; Lockwood, and Kunda, 1997, 1999). However, Javidan *et al.* (1995) note that little empirical research has investigated role models in organizational settings, and as a result, little is known about what leads to an individual being perceived and accepted as a role model by others, and more importantly, how this criteria could be impacted by the gender of the individual.

While the definition of hypothetical or cognitive role models used in previous research provides an important perspective for research on career development and outcomes, our work takes a somewhat different approach. We define role models as contextual experts who provide instrumental and/or psychosocial functions as part of an individual's social network. This view of role models is quite distinct from previous work (e.g. Gibson, 2004) because it examines role models as relationships (a dynamic perspective) rather than a unidirectional cognitive representation. The issue of the gendered nature of role models, we argue later, is also context-specific and thus, depends on the pattern of relationships in organizations that varies significantly by gender.

Role model attributes

Few organizational studies have examined the actual attributes of those individuals perceived to be role models by others and compared them to individuals in the same organization who are not considered role models. A good deal of the early work in this area focuses on students and the role of professors as academic or career role models (Basow and Howe, 1985; Erkut and Mokros, 1984; Goldstein, 1979). The question of role model attributes is important because the very definition of role models as provided by Gibson (2004) identifies this status as socially constructed and based on individual perceptions. For example, in one study of Canadian managers, Javidan *et al.* (1995) showed that managers' perceived effectiveness was positively associated with being considered a role model by subordinates.

Investigating consulting and law firm employees, Gibson and Cordova (1999) found that employees selected role models based on technical expertise, leadership ability, organizational and financial success, ability to balance personal and professional life, interpersonal skills, and personal traits and values. Similarly, Zagenczyk *et al.* (2005) found that leadership positions, in-degree advice network centrality (advice-giving), performance rewards and tenure were positively associated with being perceived as a role model by others. This suggests that a range of different attributes may drive the designation of role model status within the organization.

While some work focuses on defining the specific attributes used to confer role model status on an individual, other work examines the issue of matching between the individual and the role model as the defining feature of role model status in terms of selection and favorable versus unfavorable outcomes. Recently Lockwood (2006)

examined whether matching on gender determines the impact of career role models on self-perception. Her findings suggest that gender matching may be important for women than men. This is similar to early work by Goldstein (1979), who found that female graduate students published more work if they had access to a female advisor rather than a male advisor, whereas the reverse was true for male graduate students. Work by Downing *et al.* (2005) replicated this finding among a sample of female science majors. It seems that interactions with senior female scientists help to sustain the interest of female students in their science curriculum. In addition to gender, issues such as race have been examined in terms of the match between the individual and the role model (e.g. Lockwood *et al.*, 2005, 2004).

Gender and role model status
While a number of studies have focused on attributes of role models in organizations, few empirical studies have focused on gender differences in whether or not an individual is perceived to be a role model. One example is provided by Javidan *et al.* (1995), who included gender in their study of managers, but found that it explained only 1 percent of the variance in whether or not an individual considered their manager to be a role model. The study by Javidan and his colleagues only examined the impact of gender in the context of the supervisor-subordinate relationship, that is, a formal type of developmental relationship. Women in this study had already achieved formal recognition within the organization (i.e. supervisor) as part of being acknowledged as a role model. However, their study did not assess the role of gender in whether or not an individual was considered to be a role model within informal relationships among peers within the same organization. Our work addresses this important gap.

While the study by Javidan *et al.* (1995) does not allow for conclusions outside of managers' role model status, Gibson and Cordova (1999) did look at coworker relationships in their study. Female role models were more likely to be described as balancing work and personal life, being hard workers, and having a positive attitude, and less likely to be described as organizationally effective, a leader, a teacher, a manager or a coach, than men were. Overall, these findings support the idea that women may be emulated for factors not directly associated with their work, but rather for personal characteristics. In addition, the study by Gibson and Cordova (1999) focused on dimensions of the individual role model, not the person-role model relationship. This latter dimension is an important potential contribution of the current work.

Role model status – why relationships matter
Research from the mentoring and social networks literatures offer a rationale for why the relationship between the individual and the role model is an important dimension to examine. Studies on mentoring demonstrate that the match between mentor and employee race and gender can shape the dynamics of developmental relationships (see Blake-Beard *et al.*, in press). Material benefits such as salary and promotion are generally higher for females when they have white male mentors (Blake-Beard, 2003; Dreher and Cox, 1996; Dreher and Chargois, 1998; Giscombe *et al.*, 2005).

Ragins' (1997) work on "diversified mentoring" explains that these relationships are comprised of mentors and protégés who have different group memberships that are related to power differences in organizations. Mentoring relationships do not occur independent of context, but instead are influenced by "macro" dynamics of power

relationships among groups in organizations. The influence of each party in the mentor-protégé dyad is influenced by the individual's group membership and the group's access to organizational resources. In terms of role models, this research suggests that female employees themselves may not be considered to be influential because the organizational context does not identify women as having power and/or status within the organization. The gendered nature of organizations may serve to either prevent women from being identified as role models or place on them a different (and perhaps higher) set of criteria before they are perceived as role models by their coworkers.

Continuing the reasoning offered by Ragins (1997), research on social networks offers predictions for why groups have differential access to resources and perceptions of power. Ibarra (1993) defines a social network as a specific set of relations among a defined set of persons. Social network analysis is based on the premise that the pattern of relationships among a set of actors will offer explanatory power over and above that of the attributes of the individuals or the group (Wasserman and Faust, 1994). Brass (1985) investigated the interaction patterns of women and men to explain why women have not acquired status and influence similar to men in organizations. He found that centrality in the organization's informal network was significantly related to the influence that they had in the organization, and that women were generally less central than men. Although women were aware of the importance of social networks and developed networks of their own, they still were not well integrated into the informal networks (particularly those in leadership or management positions), and thus did not receive promotions at the same rate as men.

In order to explain why women had difficulty gaining access to influential (and male-dominated) networks, Mehra *et al.* (1998) utilized distinctiveness theory. Distinctiveness theory argues that people identify with similar others who share characteristics that are relatively rare in the specific context. According to this theory, then, women are more likely to identify with other women, African-Americans with other African-Americans, and white males with other white males. Mehra *et al.* (1998) found that this resulted in white males being highly central in organizational networks because of their greater numbers, while minorities tended to be marginalized. Ibarra (1995) found a similar pattern in her comparison of minority and white managers' networks. However, in her research "high-potential" minority managers had more cross-race ties than did average-potential minority managers and thus were more central inside the informal network within the organization.

Burt's (1998) work on social networks is also quite relevant to our present discussion. He argued that women are unable to duplicate the networks of men because they lack legitimacy in the organization. In order to be successful, women need to effectively "borrow" the social network of a male sponsor who is influential in the organization. This borrowing of social power leads others to perceive that they are actually dealing indirectly with the male manager (power by proxy). In his work, women who borrowed social networks were promoted more quickly than women who attempted to develop their own networks.

Research hypotheses

Research on social networks and mentoring both suggest that women typically lack legitimacy and access to informal networks within the organization. As a result, they are promoted more slowly and perceived as being less powerful. Therefore, we expect

that if women are to be perceived as role models, they will have to do more to demonstrate their legitimacy to others in the organization relative to men. First, to be perceived as role models, we argue that women must achieve some type of formal status within the organization. It is important for women to be perceived as legitimate organizational members in order to be considered role models by coworkers. In addition, women must also establish themselves within social networks in organizations. While it might be difficult for women to be included within interpersonal networks (e.g. friendship networks), women may gain access to advice networks because their knowledge can be useful to those within that network. Thus, we expect that women who provide advice for other employees will be considered role models because such activity signals to others that they are knowledgeable and therefore, legitimate organizational members:

H1. Female role models will be identified as a source of advice by a larger number of employees (network in-degree centrality) than female non-role models.

Advice networks are made up of relationships through which employees share information or advice related to the completion of their work (Ibarra, 1993). Employees who are more central in the advice network have more relationships with other work unit members, and thus have greater access to resources and more control over the resource acquisition process (Brass, 1984, 1985; Brass and Burkhardt, 1993). In addition, Sparrowe *et al.* (2001) found that the in-role and extra-role performance of central employees was evaluated more favorably than the performance of less-central employees. Using this logic, Zagenczyk *et al.* (2005) demonstrated that advice network in-degree centrality (advice-giving) was positively associated with being perceived as a role model. However, Zagenczyk and his colleagues did not consider gender in their research. Thus, we expect that for males, it will not matter whether advice is requested or provided however, their position within the network will be important in determining whether they are considered to be role models. Thus we offer the following hypothesis:

H2. Male role models will be considered both a source of advice for a greater number of employees and a recipient of advice from a greater number of employees (network centrality) than will male non-role models.

Friendship networks, on the other hand, are composed of close, interpersonal ties and positive amicable relationships (Jehn and Shah, 1997). Because friendship networks will generally have less to do with the work in the organization than advice ties, we do not expect that being integrated into the friendship network will make women appear to be any more or less legitimate members of the organization. Therefore, we expect that friendship network centrality among females will not be related to being perceived as a role model. However, because informal networks often benefit men more than women, we expect that being friends with other organizational members will be positively related to being perceived as a role model, but only for men. Thus, we test the following hypothesis:

H3. Male role models will have a greater number of friendship ties (network in-degree centrality) than will male non-role models.

In addition to social network characteristics, we expect that organizational rewards will be higher among role models than non-role models. Research by Ibarra (1999)

suggests that role models are representations of individuals' ideal selves. To the extent that employees wish to be successful in their organization, they will look to those in organizations who are perceived as being successful and who have won performance-related rewards. Consistent with this, Gibson and Cordova (1999) showed that employees selected their role models based on organizational success. Javidan *et al.* (1995) found that managers perceived as being more effective were more likely to be considered role models by their subordinates and Zagenczyk *et al.* (2005) found that organizational rewards were positively related to role model status.

However, as mentioned previously, Gibson and Cordova (1999) found that females were more often considered to be role models as a result of their attitudes, their ability to balance personal and professional aspects of their lives, and their work effort. On the other hand, male role models were more frequently labeled teachers, managers or coaches. This pattern of results suggests that females will have to do more to show that they are successful in the organization than will males; thus, we expect that receiving performance-related awards will be positively related to females being perceived as role models:

H4. Female role models will have received more formal rewards or recognition from the organization than will female non-role models.

Because role models are representations of their observer's ideal selves (Ibarra, 1999), individuals who hold leadership positions in organizations are frequently regarded as role models. Bucher and Stelling (1977), Nicholson (1984), and Zagenczyk *et al.* (2005) demonstrated that individuals often viewed organization members with desirable organizational positions as role models. Because leadership positions are publicly recognized roles that increase the visibility of an organization member, we expect that holding leadership positions will be positively related to being perceived as a role model for both males and females:

H5. Female role models will report having held more leadership positions in the organization than female non-role models.

Within both friendship and advice networks, we examine the strength of the tie as a function of role model status. Although we do not offer a specific hypothesis concerning tie strength; rather, we explore the impact of the strength of the relationships that male and female role models have within both advice and friendship networks.

Methods
Sample and procedures
A survey investigating role models and social networks was administered to employees of a recruiting unit that is part of the admissions department at a large eastern university in the USA. The employees of this organization, mainly undergraduate students, are responsible for providing a number of services targeted at potential undergraduate students, including walking and bus tours of the campus, representation of the university on recruiting trips, and contacting applicants following admissions decisions. These student employees play an important role in giving potential applicants valuable information and insights into life at the university, and represent a highly selective group of student employees. Thus, the organization

requires employees of this work unit to maintain a grade point average of 2.5 or greater (on a 4.0 scale). In addition, this work unit was highly decentralized, with only one faculty advisor within the organization, and all leadership positions determined by voting among members in the organization. Therefore, employees have a great deal of responsibility in determining both the structure and the process of how the organization operates.

Data were collected during a regular meeting of the organization. Of the 138 members in the work unit, 101 were present at the meeting, and complete data were obtained from 93 employees making the response rate 67 percent. The respondents were told that the purpose of the survey was to investigate their experiences and the knowledge they had gained while performing their jobs. The employees were assured that their responses would remain confidential. The mean age of the entire sample was 20.1 years (sd = 1.28) with a mean of 5.83 semesters of tenure (sd = 3.78). The sample was 60.2 percent female and 80.6 percent Caucasian, 11.8 percent African-American, 5.4 percent Asian, and 2.2 percent other race/ethnicity.

The survey administered comprised two parts. The first part of the survey was designed to gather sociometric data, while the second part was designed to collect demographic data and information on organizational rewards and leadership positions held. In the sociometric portion of the survey, respondents were provided with a roster of all employees in the organization and questions concerning their relationships with each of their coworkers. In order to assist respondents in completing the sociometric portion of the survey, pictures of all organizational members were provided to each respondent. The sociometric portion of the survey was used to build a matrix of all advice and friendship ties in the organization using UCINET 6.0 software (Borgatti *et al.*, 1999).

Measures
Role model status. In order to determine who employees' role models were, each employee was asked to identify employees he or she considered to be "role models". A "role model" was described as an "employee who has a high level of performance and serves as an excellent example of the goals and values of the organization." Role model status was conferred to an employee based on the number of role model nominations s/he received from his or her coworkers. In order to perform meaningful statistical analysis of the differences between role models and non-role models, we selected employees who had above-average role model status scores. a total of 30 employees exceeded the mean and were thus labeled "role models." The remaining 63 employees were labeled "non-role models." With regard to demographics, role models were 93.3 percent Caucasian, 6.7 percent African-American, and 53.3 percent female. Mean age was 20.61 years, while mean tenure was 7.6 semesters.

Advice network centrality. A matrix of all advice ties in the organization was constructed and analyzed using UCINET 6.0 software (Borgatti *et al.*, 1999). To measure centrality, we use directed, or non-symmetric, data (Wasserman and Faust, 1994). Directed data account for the fact that relationships can be asymmetrical by recognizing that four possible relationships may exist between two actors: A and B do not have a relationship, A recognizes a relationship with B only, B recognizes a relationship with A only, or both A and B recognize that a relationship exists between them. Out-degree centrality for the advice network was defined as the total number of

other organization members that an individual identified as a source of job-related advice. Thus, an employee's out-degree centrality score was an indicator of the number of job-related advice ties that an employee reported he or she had within the organization. In-degree centrality for the advice network was defined as the total number of times that an individual was reported to be a source of job-related advice by other employees. Thus, an employee's in-degree centrality scores indicated how much advice-giving an employee engaged in. Reciprocated advice ties were those that were acknowledged by both employees.

Friendship network centrality. A matrix of all friendship ties in the organization was constructed and analyzed using UCINET 6.0 software (Borgatti *et al.*, 1999). Friendship network centrality was defined as the total number of other work-unit members that an individual identified as individuals "who they saw both within their role in the organization and socially outside of their role in the organization." As in the measures of advice network in-degree and out-degree centrality, in-degree centrality in the friendship network corresponds to the number of times that an individual is selected as a friend by others in the organization, while friendship out-degree centrality is the number of friendships that the focal individual reports he or she has. Reciprocated friendship ties are ties that are acknowledged by both involved parties.

Organizational rewards. Employees reported performance-related rewards that they received as a member of the organization. Higher scores are representative of higher numbers of rewards received.

Tie strength. Granovetter (1973) defines tie strength as the combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services that characterize the tie. Nelson (1989) utilizes frequency of contact as a measure of tie strength, arguing that this is the best and most efficient way for researchers to approximate tie strength in a study. Consistent with Nelson (1989), friendship and advice ties were considered "strong ties" when they were characterized by frequent contact (one or more interactions per week). Weak advice and friendship ties, on the other hand, were defined as ties in which employees did not have frequent contact (less than one interaction per week).

Leadership positions. Employees reported the number of leadership positions that they currently hold or have held as a member of the organization.

Results

In order to test the hypotheses, we directly compared male role models versus non-role models and also female role models to non-role models using analysis of variance. We used organizational rewards, number of leadership positions, in-degree advice centrality, out-degree advice centrality, friendship centrality and tie strength as the dependent measures. Results of these analyses are presented in Tables I and II.

Consistent with *H1*, female role models had higher levels of in-degree advice centrality than female non-role models ($F = 43.06$, $p < 0.001$, df $= 1, 54$). Thus, females judged to be role models provided more advice to others than did females who were not seen as role models. Consistent with our expectations, there was no statistically significant difference in the out-degree centrality scores of female role models compared to female non-role models within advice networks ($F = 3.35$, $p < 0.10$, df $= 1, 54$). Thus, receiving advice within the network was not as important in defining women as role models compared to advice-giving (see Table I).

On the other hand, male role models had significantly higher in-degree advice centrality scores ($F = 34.37$, $p < 0.001$, df $= 1, 35$) and slightly higher out-degree advice centrality scores ($F = 3.85$, $p < 0.05$, df $= 1, 35$) than male non-role models. For men considered to be role models, they both provided as well as received advice from peers in their social network. This finding is consistent with our second hypothesis. As we expected, males who were central in the advice network (regardless of whether they were giving or receiving advice) were more likely to be perceived as role models than men who were not central in the advice network. Thus, *H2* was clearly supported.

Our third hypothesis concerned the difference between male role models and male non-role models within the friendship network. We found strong support for *H3*. Male role models had higher in-degree centrality ($F = 39.03$, $p < 0.001$, df $= 1, 35$) within the friendship network than male non-role models (see Table II). Of importance is that we also found a marginally significant effect for the degree of reciprocal friendships ties between male role models versus male non-role models ($F = 3.14$, $p < 0.10$, df $= 1, 35$). Thus, male role models had more reciprocal friendship ties than non-role models, indicating how important these friendship relationships were for male role models. Although not expected, these reciprocal friendship ties were also important for identifying female role models compared to female non-role models ($F = 17.38$, $p < 0.001$, df $= 1, 54$). Interestingly, non-reciprocal friendship ties were not

	Role models	Non-role models
Number of offices held	0.19	0.00
Number of awards received	1.25	0.23
Friendship centrality (reciprocal ties)	27.75	15.52
In-degree friendship centrality	48.37	24.55
Out-degree friendship centrality	39.37	28.85
Total strong friendship ties	15.62	10.17
Advice centrality (reciprocal ties)	12.43	4.35
In-degree advice centrality	31.31	12.80
Out-degree advice centrality	27.19	17.15
Total strong advice ties	8.43	3.57

Table I.
Means comparison of female role models with female non-role models

	Role models	Non-role models
Number of offices held	0.14	0.00
Number of awards received	0.86	0.43
Friendship centrality (reciprocal ties)	26.35	19.21
In-degree friendship centrality	48.14	28.91
Out-degree friendship centrality	38.50	33.56
Total strong friendship ties	13.64	13.04
Advice centrality (reciprocal ties)	4.85	4.91
In-degree advice centrality	29.28	12.34
Out-degree advice centrality	9.85	19.47
Total strong advice ties	2.57	3.73

Table II.
Means comparison of male role models with male non-role models

significantly different between female role models and non-role models (in-degree centrality).

Our fourth hypothesis focused on whether female role models received legitimacy through formal organizational awards or recognition. As expected, female role models received more formal awards for their performance than female non-role models ($F = 24.96$, $p < 0.001$, df $= 1, 54$). Thus, *H4* was supported. Interestingly, there was small difference in the number of formal awards conferred to male role models compared to non-role models ($F = 4.78$, $p < 0.05$, df $= 1, 35$). Thus, formal acknowledgement of knowledge or expertise appears to be more important for being perceived as a role model, especially for women compared to men (see Tables I and II).

In addition, both male ($F = 3.63$, $p < 0.10$, df $= 1, 35$) and female ($F = 8.90$, $p < 0.01$, df $= 1, 54$) role models were more likely to have held formal positions of responsibility within the organization than male and female non-role models, respectively. However, the difference was only marginal for male role models compared to non-role models. This provides some additional support for *H5*.

We also examined the strength of advice and friendship ties for male and female role models compared to non-role models. For women, the total number of strong advice ties ($F = 10.99$, $p < 0.001$, df $= 1.54$) and total number of strong friendship ties ($F = 4.83$, $p < 0.05$, df $= 1.54$) were significantly different between role models and non-role models (see Table I). For men, the total number of strong advice ties was not significantly different between role models and non-role models ($F = 1.12$, $p = $ ns, df $= 1, 35$). The difference between number of strong friendship ties also did not differ significantly between role models and non-role models for men ($F = 0.024$, $p = $ ns, df $= 1, 35$). Thus, tie strength seems to be important for women's perceived role model status, but not for men. In fact, when directly comparing only male to female role models, the number of strong advice ties ($F = 8.72$, $p < 0.01$, df $= 1, 28$) and the number of reciprocal ties ($F = 7.88$, $p < 0.01$, df $= 1, 28$) were both significant. Female role models had significantly more strong advice ties and more reciprocal ties than male role models (see Tables I and II).

Discussion

Based on social networks and mentoring research that shows that women have difficulty gaining legitimacy in organizations; our expectation was that women would have to do more than men to establish their legitimacy and be perceived as role models by their peers. In general, we found support for our expectations. First, female role models were judged by more of their peers to be sources of advice (advice in-degree centrality) than were female non-role models. However, females who reportedly received more advice from their coworkers (advice out-degree centrality) were not likely to be considered role models. In contrast, males who both gave advice to and received advice from more of their coworkers were considered role models. This finding is consistent with the idea that females are generally considered to be less legitimate in the organization than males. Females needed to show their expertise to validate themselves as role models by sharing their organizational knowledge with others. Females seeking information or advice related to their jobs were not considered role models; it seems that such advice-seeking made them appear to be less knowledgeable and therefore less legitimate members of the organization in the eyes of their peers.

Our findings concerning friendship networks were somewhat surprising. Our expectation was that friendship ties would help males, but not females, to be seen as a role model in the organization, but this was only somewhat the case. Consistent with our expectations, we found that friendship ties were important for male role models. Males considered by others to be a friend (friendship in-degree centrality) or having reciprocal friendship ties were positively related to being considered a role model. However, the number of reciprocal friendship ties for females was also significantly related to being perceived as a role model. One possible explanation for the lack of support for this hypothesis is the tendency of friendship and advice ties to overlap (Ibarra, 1993). Given that the mentoring literature generally indicates that female mentors provide greater psychosocial support than male mentors (Giscombe *et al.*, 2005), it is possible that a high degree of overlap existed between females' advice and friendship networks. Analysis of the correlation matrix revealed that advice in-degree centrality and friendship centrality among females was highly correlated ($r = 0.527$, $p < 0.001$). Overall, the results of our analysis of the relationship between friendship ties and role model status were somewhat consistent with our predictions, particularly for male role models.

We also expected that the receipt of organizational rewards would be positively associated with being considered a role model for females, as such rewards would signal their legitimacy to other organizational members. As expected, females who received organizational rewards were more likely to be considered role models than females who received fewer awards. In addition, the relationship between receiving awards and role model status was stronger among females than males, indicating that rewards were more important to being perceived as a role model for females. This supports the idea that for female role models, formal acknowledgement of knowledge or expertise is important for being perceived as a role model within the organization.

Finally, we expected that the high levels of exposure resulting from holding formal leadership positions in the organization would be significantly related to role model status for both males and females. This was true for females and suggests that holding such positions is important to female role models and lends support to our general thesis that females need to do more to establish strong organizational legitimacy. In fact, within our sample, it appears that male role models need only to have many (but not strong) friendship and advice ties to be considered role models. Neither formal leadership status nor organizational recognition was necessary for these men to be identified as role models. Thus, centrality within social networks is sufficient for role model status for men, but not for women.

In addition to these hypotheses, we examined the relationship between the strength of friendship and advice ties and role model status among males and females. Strong ties were those that were reciprocal and characterized by frequent contact, consistent with Granovetter (1973) and subsequent studies (e.g. Nelson, 1989). This analysis produced perhaps the most interesting results. The number of strong advice ties and strong friendship ties was significantly and positively associated with being perceived as a role model among females, but was not significantly associated with role model status among males. These results suggest that in order to be considered a role model, females maintain close, reciprocal relationships with their coworkers. On the other hand, males need only maintain weak ties with coworkers to be perceived as role models. From this, we can infer that females gain the legitimacy necessary to be

considered role models by gaining the trust of their coworkers, or maintaining enough strong relationships with coworkers that others with whom they do not maintain strong relationships become aware of their attributes. In addition, these strong network ties may provide the necessary information to help women overcome some of the stereotyped judgments that may prevent them from being seen as a role model within the organization. Our results clearly show that for women, strength of tie matters for being considered a role model, more so than for male role models.

Overall, our study offers support for the idea that for females, knowledge and legitimacy are important criteria for role model status, whereas for men, relationships within informal networks are key. In order to be perceived as a role model, females in our study needed to give – but not ask for – advice, earn organizational rewards, hold leadership positions in the organization, and maintain strong ties with other organization members. On the other hand, males in our sample merely had to participate in the advice network, regardless of whether or not they were giving or receiving advice, maintain friendship ties, and earn organizational rewards. Understanding that this occurs is important, because it helps to explain why females are not selected as role models by their peers even when they are available, as was the case in the study by Gibson and Cordova (1999).

The finding that strong advice and friendship ties were significantly associated with being perceived as a role model among females – but not males – has potentially important implications for the study of social capital in organizations. Generally, research on social capital by Burt (1992, 2000) and Granovetter (1973) contends that it is difficult to maintain strong ties with individuals from different workgroups and across different levels of the organization. Usually, strong ties reside in a clique, often in an individual's immediate workgroup. Because strong ties result in redundant rather than novel information, they are not positively related to promotion and salary (Burt, 1992, 2000). Rather, it is networks composed of weak ties that span otherwise unconnected sub-groups in the organization (known as "structural holes") that are associated with opportunities that lead to higher salaries and faster promotion. Thus, the strong-tie relationships that females maintain to be perceived as role models may hinder their advancement to upper levels of the organization, according to Burt's view.

This is important, because role models are expected to be an important source of learning for others. If females emulate other females with networks composed mainly of strong ties, and if strong ties will not lead to promotion, then emulating female role models may be counter-productive for one's career progression. In a study of employees in a large electronics organization, Burt (1998) found that female employees were promoted more quickly and attained higher salaries when they borrowed the social capital of a male sponsor. Recent research on mentoring presents the same conclusion: females with white male mentors achieve higher salaries than females with female managers (Dreher and Cox, 1996; Giscombe *et al.*, 2005). Thus, an important future research question deals with the relationship between role model status, career outcomes and gender. Little is known if role models help male or females to be promoted more quickly or earn more money. However, research on social capital, mentoring, and the findings of this study suggest that role models may result in better outcomes for males than females, give that role model status is gendered within the specific organizational context.

Future research assessing the effects of both mentors and role models in the same study would also be useful. Some researchers speculate that the changes currently taking place in the work environment make developmental relationships that are not sponsored by the organization more valuable. Empirical evidence examining this claim would make an important contribution to the literature on careers. Perhaps role models would be positively associated with learning the culture and norms of the organization (Nicholson, 1984; Ostroff and Kozlowski, 1992), while mentors may be more strongly associated with promotion and salary. However, no published research has assessed the differential effects of role models versus mentors in the same study.

This paper has some important limitations that should be mentioned. First, the study is cross-sectional and as a result it is impossible to make strong causal inferences. We adopt the theoretical perspective that having certain attributes and social network positions leads to an individual being perceived as a role model. It is possible that being perceived as a role model leads an employee to improve performance or become more central in organizational networks. We believe that our theoretical perspective makes more sense, however, and it is consistent with the extant research on role models. However, longitudinal studies structured in a manner that allow for causal inferences assessing the directionality of this relationship would be an important contribution.

A second potential limitation of this study is our sample, which consists entirely of part-time students working in a highly decentralized organizational unit. The results of this study may not be generalizable to traditional, hierarchical organizations with long-term, full-time employees. However, researchers such as Arthur and Rousseau (1996) argue that organizations are becoming more decentralized. From this perspective, our sample may have great value for organizations with flatter structures and a non-traditional workforce. However, research comparing the effects of role models in centralized versus decentralized organizations would provide an answer to this question.

Finally, we measured performance using organizational rewards received, not actual job performance as assessed by a supervisor. Research demonstrating that a more concrete measure of performance is associated with being a role model would add value to our research. In addition, it would be interesting to see if organizational citizenship behavior was associated with an employee being perceived as a role model. The role of citizenship would be important to explore because it would focus future attention on the benefits of role model status not only for the individual, but also for the organization.

Our work has practical implications for individuals in organizations, particularly in terms of career development and success. Recall that our discussion began with noting the changing nature of employer-employee relations, organizational structures and diversity of the workforce. It is clear that within this dynamic work environment, a broad set of resources is necessary to help individuals equip themselves and successfully manage their careers. As careers become increasingly "boundaryless" (Arthur and Rousseau, 1996), it is necessary for individuals to tap into critical informal (as well as formal) relationships in order to be effective. The role of factors such as mentoring and role modeling are critical resources for individuals and for organizations (Higgins and Kram, 2001). However, for individuals who are underrepresented in leadership positions within organizations, it is often difficult to

form developmental relationships which help them to navigate the embedded nature of organizational culture successfully (see Thomas and Alderfer, 1989) without clear models of success and meaningful relationships with others who understand the challenges they face.

Thomas and Higgins (1996, p. 273) argue that both underrepresented groups as well as majority individuals will be challenged by the "psychological instability that emanates from a work context that does not affirm salient and important aspects of one's personal identity, or provide sufficient information and guidance to sustain one's career growth and development". Our work on role models points to the importance for women of paying attention not only to formal organizational signals (e.g. leadership roles, titles) for legitimacy, but also the strength of their advice and friendship networks for being viewed as a role model or expert within the organization. In addition, while formal roles and advice relationships can be invaluable for women, our data clearly provides a caution that women need to pay attention to the balance between advice-giving and advice-seeking, which clearly has a negative impact on how they are perceived within the organization relative to men. The "double-edge sword" of advice-giving versus advice-seeking on whether women are perceived as role models and subsequently advance in their careers is a valuable question for additional future research.

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