

# Women’s Managerial Aspirations: An Organizational Development Perspective

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*Some authors have explained the dearth of women leaders as an “opt-out revolution”—that women today are making a choice not to aspire to leadership positions. The authors of this article present a model that tests managers’ biased evaluations of women as less career motivated as an explanation for why women have lower managerial aspirations than men. Specifically, they hypothesize that day-to-day managerial decisions involving allocating challenging work, training and development, and career encouragement mean women accrue less organizational development, and this is one explanation for their lower managerial aspirations. The authors’ model is based on social role theory and is examined in a sample of 112 supervisor–subordinate dyads at a U.S. Fortune 500 firm.*

**Keywords:** *gender; leadership; women; training and development; careers*

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In 2003, Lisa Belkin, author of the *New York Times* “Life’s Work” column, mused controversially, “Why don’t women run the world? Maybe it’s because they don’t want to” (p. 45). Since the modern women’s movement of the 1960s, the media have periodically broken stories about women’s retreat from the workplace and high-powered careers. These

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storylines have positioned women as strong out of the starting gates, that is, pursuing degrees and obtaining entry-level positions in fields such as accounting, business, and law in about equal numbers to men (Catalyst, 2007). But, at a certain point, women become disenchanted with their work lives and their careers stop, or stall. In these popular press accounts, anecdotal evidence is often used to say that women are rejecting the values of the traditional workplace—that ambition and achievement are what men desire, while women come to realize they prefer other ways of working (e.g., part-time work, small-business ownership) and living (e.g., staying at home with children). Belkin states, “As these women look up at the ‘top,’ they are increasingly deciding that they don’t want to do what it takes to get there” (p. 45). In this article, we attempt to explain the “opt-out” phenomenon from an organizational development perspective—that when women do not get critical on-the-job development opportunities, they may report a lower desire to pursue the top jobs.

Substantial disparities persist in the career achievements of men and women across the fields of law, business, and government. As evidence, in 2007, 46.7% of U.S. law school students but only 18.3% of partners in law firms were women (Catalyst, 2009). And only 3% of *Fortune* 500 CEOs were female, yet women composed about 30% of the enrollment in top full-time MBA programs and 40% in part-time MBA programs (Dizik, 2009). In the top government jobs, in 1992—the “year of the woman”—a record 27 women were elected to Congress, but in the recent U.S. elections of 2008, just 12 new female legislators were voted into office.

Traditional research perspectives on women’s underrepresentation in leadership positions and the “opt-out revolution” have focused on (1) evidence to the contrary—that women do desire top management jobs—and (2) theoretical perspectives to explain why women are underrepresented at upper levels of organizations. First, a good deal of evidence points to the fact that a majority of women today remain in the U.S. workforce, actively pursuing management careers. While some women leave traditional career paths to, for example, stay at home to care for young children for a time, the number of employed women has trended almost consistently upward since the 1970s (U.S. Department of Labor, 2008). Women may perceive more and different barriers to career progress (e.g., Lyness & Thompson, 2000) and may pursue unique career models that vary from men’s over their life spans (Mainiero & Sullivan, 2005), yet over half of employed women report the desire to ascend to the executive suite (Catalyst, 2004; Prince, 2004). Empirical studies have found that women and men demonstrate similar task and interpersonal leadership skills (Eagly & Karau, 2002) and have very similar career aspirations (Morrison, White, & Van Velsor, 1987).

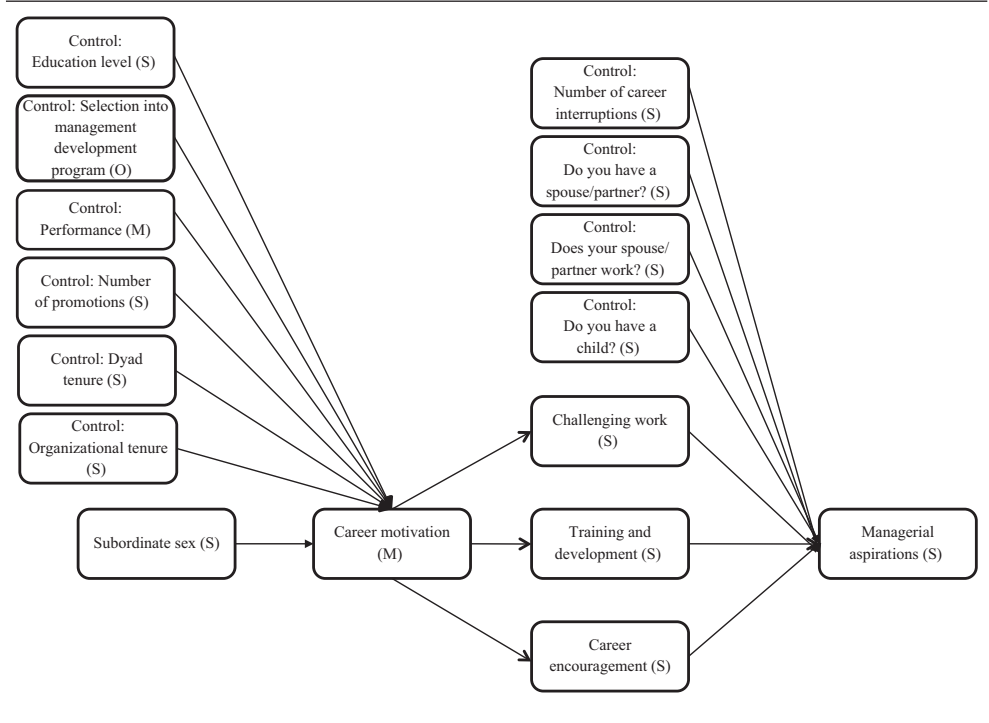
Second, a variety of theoretical perspectives have been advanced to explain the dearth of women at the top. Common explanations center around four main areas (Hoobler, Lemmon, & Wayne, 2011). The first, “glass ceiling” (invisible barriers that exist for women and other minorities that limit their upward mobility in organizations; Hymowitz & Schellhardt, 1986) explanations, focus on discrimination due to many, varied causes. For example, stereotypes of what women “are like” in the workplace clash with male leadership archetypes, resulting in women being judged as ill-suited for leadership positions. While women may reach middle and upper-middle management, the top jobs are visible to them yet not attainable. The second type of explanations focuses on women needing time to progress through “the pipeline.” The assumption is that it is simply a matter of time for enough qualified women

to mature in career experience in the pipeline to eventually assume leadership positions in senior management in equal numbers to men. Third are the explanations predicated on evolutionary psychology—the idea that women are not genetically predisposed to top management roles. These explanations, perhaps most closely aligned with the Belkin “opt-out revolution” idea above, propose that while men may prefer the high-stakes environment of top management, women find they instead prefer positions with greater job security and fewer challenges. Moreover, the maternal instinct will trump women’s career motivation. The fourth type of explanations looks at the way work is structured today—that the time and energy needed from all workers in today’s business environment and the “24/7 economy” is incompatible with the resources (e.g., time, energy) necessary for women to care for children and other dependents.

In this study, we sought to develop a new theoretical perspective depicting an alternative reason why women opt out, not of business organizations altogether but of career paths with ever-increasing managerial responsibilities. That is, we designed a study to explore women’s managerial aspirations not as a natural choice women make (e.g., Pinker, 2002, and the third explanation above) but from an organizational development perspective. In contrast to the theoretical perspectives mentioned above, and drawing on social role theory, we explore whether managers’ assessments of female subordinates as lower in career motivation than males and, therefore, the lower career development opportunities afforded to females are factors that in part explain women’s lower managerial aspirations. We define career development opportunities as the on-the-job experiences and competencies necessary to achieve managerial effectiveness (Dragoni, Tesluk, Russell, & Oh, 2009).

This research is important for at least two reasons. First, we offer a compelling alternative reason for what some have called the “opt-out revolution” of women at work. The literature is replete with evidence of rather overt gender discrimination in pay and promotions (e.g., Correll, Benard, & Paik, 2007) and women’s proclivity toward positions lower in power (Grotevant & Thorbecke, 1982). Yet we offer our explanation from the perspective of the gender discrimination literature that calls on the ambiguous, subtle discrimination that women face in the workplace, such as microinequities in interpersonal treatment (Cortina, 2008) and “well-intended” benevolent and/or paternalistic discrimination (e.g., Fiske, Cuddy, Glick, & Xu, 2002; Hebl, King, Glick, Singletary, & Kazama, 2007). Specifically, we suggest it may be that day-to-day managerial decisions involving the allocation of organizational development opportunities are impacted by managers’ stereotypes that women are less career motivated. Without these developmental opportunities, women lack the experiences necessary to aspire to higher managerial positions (see Figure 1). The second reason we feel this research is important is that this form of discrimination against women has proven elusive to document (Okamoto & England, 1999). While researchers and practitioners alike are familiar with the concept of the glass ceiling, what is needed is research that defines the *mechanisms* for these types of subtle discrimination (Hoobler, Wayne, & Lemmon, 2009). We believe this research answers a call for studies that seek not simply to add to the evidence of the existence of barriers for women but to name the processes by which discrimination occurs, with the intention of reducing their impact on women’s careers. As Meyerson and Fletcher (2000) state, female managers today encounter biases so subtle that they may not even be noticed until they are eradicated from organizations. We believe that

**Figure 1**  
**Hypothesized Model**



*Note:* M = variable reported by managers; S = variable reported by subordinates; O = variable reported by the organization.

organizational research of the type we report here addresses the need for novel approaches that describe both the mechanisms by which discrimination happens (Okamoto & England, 1999) and how they translate into divergent career outcomes for specific groups.

## Background

To understand one reason why women are underrepresented in upper management ranks, we examined the research on gendered career choices, which we see as a combination of the first (“what women are like”) and third (evolutionary psychology) theoretical perspectives detailed above. This research calls on the fields of economics and sociology to explain the absence of women in top management positions from a gender socialization perspective—that from the time children are small, they are socialized via messages, models, and reinforcement to pursue roles consistent with their gender. This research argues that girls’ tendency to be relational means they aspire to lower prestige, less powerful jobs (Grotevant & Thorbecke, 1982) that are more focused on helping, such as teaching, nursing, and administrative

support (Watson, Quatman, & Edler, 2002). Harvard evolutionary psychologist Steven Pinker has taken this a step further, controversially stating that “women, on average, are more likely to choose administrative support jobs that offer lower pay in air-conditioned offices. Men are greater risk takers, and that is reflected in their career paths even when qualifications are held constant” (2002: 356). This reincarnation of the fatalistic nature of gender differences in career choices has been echoed in a number of contemporary books and articles that suggest that women are not interested in positions of power in organizations and that opting-out of management is a natural choice that women make (e.g., Belkin, 2003; Mero & Sellers, 2003). Yet Okamoto and England (1999), in a large national longitudinal study, found that while women are more likely to occupy jobs with a higher percentage of females working in them, the differences in women's occupational aspirations and expectations explained only 4% to 8% of the occupational segregation gap (defined as women and men working in jobs filled mostly by persons of their own sex). Hence, the reasons for the dearth of women in management seem to be explained only in very small part as a natural choice women make to eschew the top jobs. And the meta-analytic research of Eagly, Karau, Miner, and Johnson (1994) found that men had a slightly higher overall motivation to manage (i.e., the motivation to perform typical role requirements related to being a manager in a business organization) but that women actually scored higher than men on certain managerial task subscales (e.g., the desire to be a figurehead, the desire to perform certain administrative tasks). Hence, little support has been provided for the hypothesis that women are predisposed to choose occupations lower in organizational hierarchies, with fewer managerial responsibilities. In this article, we explore one explanation for what has been called “choice rhetoric,” “active choice,” and even “choice feminism” (Stone, 2007). That is, we explore an alternative reason for why women become disheartened in their quest for upper level management positions: the lesser degree to which their managers bestow upon them organizational development experiences.

Van Velsor and Hughes (1990) and Lyness and Thompson (1997, 2000) have shown that both male and female senior managers feel that organizational development experiences, such as being placed in roles and tasks that are challenging and unique, had a significant impact on their career achievements. Since organizational development experiences like challenging assignments and training are of paramount importance for employees' learning (McCaughey, Ruderman, Ohlott, & Morrow, 1994), development (Davies & Easterby-Smith, 1984), job performance, turnover (Kraimer, Seibert, Wayne, Liden, & Bravo, in press), and career success (Berlew & Hall, 1966), if women are offered fewer of these opportunities, as compared with their male counterparts, the result may be not only that women will attain fewer organizational rewards (Benschop, Halsema, & Schreurs, 2001; De Pater, Van Vianen, & Bechtoldt, 2010) but that they may also be less likely to perceive they are suited for higher, managerial-level positions.

## Hypotheses

Based in social role theory, there is evidence that today's women managers are still viewed stereotypically. Social role theory, at its core, reflects society's cognitive division of men as breadwinners and women as homemakers. While these roles have become more

nuanced in modern times, occupational differences (e.g., corporate leader for men vs. teacher or social worker for women) are still colored by these expectations about what is typical for men and women. These assumptions also inherently reflect status and power differences; the public roles of men are valued more highly than the often private, unpaid labors of women in the home (Eagly, Wood, & Diekmann, 2000). Gender roles foster expectations for the appropriate conduct of both sexes. People believe that the sexes have typical—and different—traits and behaviors (e.g., Diekmann & Eagly, 2000). Literally hundreds of studies have illustrated that humans harbor rather inflexible views of men as more agentic and competent and of women as more expressive, communal, nurturing, and supportive (Pomerleau, Bolduc, Malcuit, & Cossette, 1990). Extended to the business world, this translates into research based on the “think leader, think male” bias (Heilman, 2001). Schein (1973) coined the phrase “think leader, think male” in the 1970s to explain strongly held beliefs among U.S. middle managers that managerial success stems from masculine characteristics. These beliefs therefore posed a psychological barrier to the advancement of women managers (Schein, 2001). Contemporary replications of these early studies have found that little has changed in perceptions of successful managers as possessing characteristics more commonly ascribed to men than to women (Dodge, Gilroy, & Fenzel, 1995; Schein, Mueller, & Jacobson, 1989)—with some studies showing that these biases are still held predominantly by male managers (Duehr & Bono, 2006). Nevertheless, being a woman is associated with perceptions of decreased managerial ability (Powell, Butterfield, & Parent, 2002), less effective leadership (Eagly, Johannesen-Schmidt, & van Engen, 2003), and fewer attributions for organizational successes (Heilman & Haynes, 2005).

Not only are gender role stereotypes *descriptive*, describing traits that are thought to exclusively describe men and women (Welle & Heilman, 2005), but they are *prescriptive* as well, reflecting perceptions of how men and women “ought” to be, that is, what behaviors are socially appropriate (or not), based on one’s sex (Pichler, Simpson, & Stroh, 2008). For women managers, success at typically male tasks (those involving dominance, competitiveness, and achievement) is likely to arouse disapproval and provoke penalties (Cialdini & Trost, 1998). Heilman and Okimoto (2007) found that women who were successful at male gender-typed jobs were judged to be unlikable, to have undesirable interpersonal attributes, and—most central to our model—to be less desirable bosses, relative to similarly qualified males. Hence, a double bind for women is created whereby, descriptively, their traits are not aligned with managerial competency and, prescriptively, those who take on characteristics central to managerial success are penalized for gender role violations. Heilman’s (1983) lack-of-fit model proposes that when one’s gender is incongruent with the sex type of the job in question, this will result in decreased performance expectations and evaluations (Heilman, 2001). In our model, based on gender role theory, we propose that managers will view their female subordinates as having less career motivation than their male subordinates from both of these perspectives. Described by London (2002), career motivation includes career identity, or the centrality of work to an individual’s self perceptions; career insight, or the extent to which an individual sets realistic career goals for himself or herself; and career resilience, or the ability of an individual to bounce back after career-related setbacks. In this study, we examine manager-rated career identity because it assesses observable behavioral manifestations of career-related ambition on the part of employees. That is, managers are able to

assess the extent to which their employees partake in activities that demonstrate commitment to their careers. Moreover, the career identity component of career motivation describes activities that an employee may engage in that are central to upward mobility, or managerial aspirations, in organizations.

In sum, there are several reasons why managers perceive women as having less career motivation than men do. First, the traits describing men (e.g., agentic, achievement oriented) coincide with career-related motivation. Second, when women do behave in ways more indicative of male traits that indicate career motivation, they will be judged harshly and found less socially acceptable than men who behave in this manner (Heilman & Okimoto, 2007; Jago & Vroom, 1982). As Sools, Van Engen, and Baerveldt relate, women may have a more difficult time demonstrating their career drive and motivation within a gendered system of social norms, whereas “men are . . . perceived as hierarchically ambitious . . . [so] they do not [need] to make their ambition explicit” (2007: 430). So, as other research has demonstrated, our model begins with the following hypothesis:

*Hypothesis 1:* Managers will perceive female (vs. male) subordinates as lower in career motivation.

### *An Organizational Development Perspective*

In a study of senior-level managers, Lyness and Thompson (2000) found that women at higher levels in organizations experienced even more obstacles to their upward progress than did women at lower levels. The women reported not fitting in with the organization's culture, being excluded from informal networks with male peers (Davies-Netzley, 1998), and perceiving fewer benefits from mentoring. There is evidence that females are more dependent on formal organizational career management processes and objective qualifications for promotion, such as the attainment of advanced degrees, than are their male counterparts (Heilman, Martell, & Simon, 1988; Powell & Butterfield, 1994). While men are more likely to use informal social networks to obtain opportunities for promotions, women are more reliant on traditional routes to advancement (Cannings & Montmarquette, 1991; Tharenou, 2001).

According to social role theory, women are often viewed stereotypically when it comes to management potential, as we have argued above. Ample evidence exists illustrating women's lower suitability for such male-typed jobs. According to Heilman and colleagues, women's devaluation relative to men in selection decisions is consistent across research participants whether the methodology is “rating resumes, doing in-basket exercises, or observing videotapes,” whether evaluators are male or female, and “whether they were college students, professional interviewers, or personnel directors” (1988: 99).

While women need traditional objective qualifications perhaps more than men do to advance in organizations, the lack-of-fit model (Heilman, 2001) and “think leader, think male” paradigm predict that decision makers may see women as less worthy of on-the-job organizational development opportunities. Stroh, Brett, and Reilly (1992) found in a sample of *Fortune* 500 managers that women had “all the right stuff”—they attained similar education as men, maintained similar levels of family power (i.e., women who were wives earned incomes similar to their husbands' and their careers were not viewed as secondary to their

husbands' careers), worked in similar industries, and had not experienced career interruptions nor removed their names from consideration for transfers—yet women lagged behind in career progress. We believe that the cognitive bias of the “think leader, think male” paradigm means that objective qualifications, commonly referred to as *human capital*, are not enough for women to get to the executive suite—that obtaining on-the-job organizational development experiences is critical to their advancement (Lyness & Thompson, 2000). Specifically, when women are viewed as mismatched with managerial jobs, they are assumed to be less career motivated (as in the Sools et al., 2007, quote above), which means that their managers will act in ways consistent with lack-of-fit expectations. On the other hand, the extent to which managers believe that their subordinates are career motivated may lead to advancement through sponsorship of those individuals. That is, managers may provide “favorable opportunities” to those whom they believe will be successful (King, 2008; Ng, Eby, Sorenson, & Feldman, 2005). Hence, because they view women as a poor fit for managerial roles, managers see women as less career motivated and, we expect, less worthy of organizational development investment.

Organizational development equates to experiences, skills, or education that individuals attain that they can then draw on when performing their jobs and when being considered for future career opportunities. Those who have the opportunity to learn new skills and have the sponsorship of more powerful others should reap returns on those investments for the organization and for themselves. However, there are significant expenses related to investing in the organizational development of employees, such as time, effort, and financial costs (Kraimer et al., in press). Because women's gender roles position them as less of a fit with managerial roles, and likely lower in competency, the organizational costs associated with investing in women's development would appear to be inflated, or more “risky,” as compared with investing in men (Ohlott, Ruderman, & McCauley, 1994). That is, (1) the investment may be less likely to be utilized by the organization, for example, because women are perceived to have a lower likelihood of obtaining positions of authority (Heilman, 2001) or because they are assumed to be a “flight risk,” that is, to have higher rates of turnover (Lyness & Judiesch, 2001), and (2) women are assumed to be less credible (Ohlott et al., 1994) and competent, which means they are likely to consume more resources to reach the same achievement level as men. Hence, we predict that women will be granted fewer opportunities to attain the necessary organizational development in order to feel they are suited to advance to higher management positions. In support of this argument, Eby, Casper, Lockwood, Bordeaux, and Brinley (2005), in their content analysis of the work and family literature, concluded that career development opportunities in organizations do vary as a function of gender.

*Challenging work and training and development.* Training and on-the-job experiences such as receiving challenging work assignments are important in that they increase productivity, include social benefits such as those developed through networking during training sessions, and are tools that workers take with them from job to job and organization to organization. Hence, we propose, via the social role theory arguments advanced above, that managers' perceptions of the career motivation of their subordinates will be a determining factor in whether or not women receive the development opportunities of challenging work assignments and training and development.



The careers literature suggests that the extent to which employees engage in challenging job experiences is one of the most important sources of career development and success (Berlew & Hall, 1966; Woodall, Edwards, & Welchman, 1997). Putting employees in unique situations that require them to learn new skills and apply competencies to new and different problems, customers, and projects not only demonstrates their acumen to supervisors and other persons who may determine their career progress but demonstrates to employees themselves that they have the ability to succeed in demanding circumstances. Challenging work is important to encourage employees' motivation toward not only their jobs (Donnell & Hall, 1980) but also their careers in that it has been found to increase employees' capacities to assume managerial roles (London, 2002; McCauley et al., 1994). In support of a direct relationship between sex and challenging work, research has found that female employees are less likely than their male counterparts to report being given critical developmental assignments (McCall, Lombardo, & Morrison, 1988) and stretch assignments (Ruderman, Ohlott, & Kram, 1996). Recent research by King et al. (in press) demonstrated that women and men were equally likely to demonstrate interest in challenging work, but likely out of benevolent sexism ("women deserve protection"), women are assigned less challenging work assignments.

As well, a good deal of research has demonstrated that employees who participate in training and development programs improve their job-related skills and competencies and exhibit higher overall job performance (e.g., Arthur, Bennett, Edens, & Bell, 2003; Kozlowski et al., 2001). We argue that gender role theory explains the degree to which women are given challenging work assignments and training and development opportunities. That is, their perceived lack of career motivation is the cognitive linking pin that influences managers' decisions to grant these developmental opportunities less often to women.

*Manager career encouragement.* Managers may guide women, especially those with family responsibilities, into alternative employment arrangements such as part-time work, which at face value seem supportive but, in essence, serve to derail their careers. This type of discrimination has been called *benevolent sexism* in that it seems protective and "in women's best interests," but it serves to limit women's options and progress (Moya, Glick, Expósito, de Lemus, & Hart, 2007). Once women are associated with alternative ways of working, such as the part-time "mommy track," they report heightened career obstacles such as exclusion from important social networks and fewer opportunities for promotion (Galinsky et al., 2003). These actions are particularly destructive in that research supports that women, in general, may need *more* encouragement than men for career achievement and to attain higher managerial positions (Tharenou, 2001).

Managers' advice may be less effective and helpful in advancing women's careers as compared with men's (Kram & Hall, 1996), or it may be simply provided to women at a lesser rate. Research points to women having greater difficulty than men do in obtaining mentors (Ragins & Cotton, 1999). Yet other research notes, ironically, when career encouragement (one type of mentorship) is experienced, it relates more strongly to women's advancement than it does to men's (Tharenou, 2001). In sum, we predict that women are viewed as less career motivated than men, via social role theory, and this evaluation is associated with the degree to which women accrue valuable organizational development in the forms of challenging work, training and development, and manager career encouragement.

*Hypothesis 2:* Managers' perceptions of their subordinates' career motivation will mediate the relationship between sex and subordinate reports of receipt of (a) challenging work, (b) training and development, and (c) manager career encouragement.

When employees lack organizational development, this can lead to withdrawal behavior, specifically turnover intentions (Kraimer et al., in press). We suggest that because employees are frequently embedded in their communities, occupations, and organizations (e.g., Mitchell, Holtom, Lee, Sablinski, & Erez, 2001), or for many other reasons, they may lack attractive employment alternatives. In this way, a lack of development could result in a lesser form of withdrawal behavior, that is, the decision not to pursue a management position.

Other research has shown that a lack of career development has a more direct relationship with women's desire to move up in organizations. Specifically, senior-level women report they detect barriers to advancement when they lack career encouragement (Tharenou, 2001), feel excluded from social networks, have not been successful in demonstrating a strong track record, or have difficulty getting developmental assignments (Lyness & Thompson, 2000). In our model, we predict that when employees do receive the necessary organizational development, they are more likely to see themselves as qualified for management positions, that is, to see these positions as attainable career goals.

*Hypothesis 3:* Subordinates' receipt of (a) challenging work assignments, (b) training and development, and (c) manager career encouragement will be positively related to their managerial aspirations.

## Method

### *Sample*

Data were collected from a Midwestern U.S. division of a global *Fortune* 500 transportation organization. This organization manages business and consumer product packaging, shipping, and supply chain logistics. With the human resource management department's assistance, we randomly sampled managers and their subordinates; the subordinates were one level below the managers in the organization's hierarchy. Each level of hierarchy within the organization had clear and distinct duties. Managers supervised subordinates, focused on general operational issues, and had responsibility for one functional area of the division. The subordinates supervised a smaller group of individuals and were involved in more day-to-day work activities, such as scheduling and monitoring the production of the frontline, hourly employees.

Surveys were completed by 200 individuals, including 52 managers and 148 subordinates. In total, 112 subordinate surveys were usable, for a response rate of 76%. All manager surveys were usable (100% response rate). Our higher response rates are likely due to the fact that the organization designated time during work hours for survey completion. Subordinate and manager data were matched in order to examine the manager-subordinate relationship; a total of 112 dyads were formed. Managers rated 3 subordinates, on average, although no single manager rated more than 4 subordinates.

Managers and subordinates both provided demographic information. The manager sample was 84.8% male and had a mean age of 40.3 years. The subordinate sample contained fewer men, with 65.2% being male. Subordinates had a mean age of 35.7. The racial composition of the sample was diverse. Of the managers, 72.7% were Caucasian, 18.2% were African American, 6.8% were Hispanic, and 2.3% were Asian. Of the subordinates, 60.2% were Caucasian, 20.1% were African American, 8.9% were Hispanic, and 4.3% were Asian; 6.5% declined to provide racial information. As expected, managers ( $\mu = 18.6$  years) had worked in the organization longer than subordinates ( $\mu = 11.2$  years). The average manager-subordinate dyad tenure was approximately 1 year. While no data on educational background were collected from managers, we did find that among the subordinate sample, 41.5% held a bachelor's degree and 7.6% had a master's degree.

### *Procedure*

The organization allowed surveys to be distributed during work hours by the authors and trained doctoral students. Participants received a packet with a cover letter explaining the intent of the survey, its confidential and voluntary nature, participants' rights as a research participant, and the survey.

### *Measures*

Subordinates reported responses to questions about challenging work, training and development, career encouragement from their managers, and their managerial aspirations, in addition to demographic information. Managers reported perceptions of their subordinates' career motivation and performance. They also provided demographic information. Prior to analyzing the data, the focal organization provided us with information on whether or not each responding subordinate had been selected into an organization-sponsored management development program. Excluding demographic questions and the measure of training and development, all scales used a 7-point Likert-type response scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

*Sex.* Subordinate sex was dummy coded as 0 for men and 1 for women.

*Career motivation.* We adapted Day and Allen's (2004) seven-item Career Identity subscale, which is one of three factors comprising their Career Motivation scale ( $\alpha = .76$ ). The other two factors were not employed because they ask about a subordinate's specific affective states and cognitions, which are not known by a subordinate's manager and thus are not ratable. The Career Identity subscale captures whether or not a subordinate is motivated to be proactive in advancing his or her career. We changed the scale's referent such that the manager reported on the subordinate's career motivation. Example items are "This subordinate volunteered for important assignments with the intent of helping to further his/her advancement possibilities" and "This subordinate spends free time on activities that will help with his/her job."

*Challenging work.* We modified Ragins and McFarlin's (1990) three-item measure of challenging assignments received from one's mentor ( $\alpha = .95$ ). Instead of "my mentor," we asked subordinates to refer to "my supervisor" when answering each question. Items include "My supervisor provides me with challenging assignments," "My supervisor assigns me tasks that push me into developing new skills," and "My supervisor gives me tasks that require me to learn new skills."

*Training and development.* This measure assesses the extent to which subordinates receive opportunities to build skills useful in their performance at the focal organization. We focused on opportunities this organization potentially had direct control over to bestow upon its employees; that is, we did not intentionally include the external training and development opportunities employees may have engaged in (e.g., networking lunches sponsored by almas) on their own accord. We assessed training and development using six items adopted from Tharenou and Conroy (1994). To assess the reliability of this scale, we calculated the scale's composite reliability, as this statistic is preferable to Cronbach's alpha when a scale's items do not conform to the assumption that each item loads similarly onto the latent factor. For example, it is reasonable to assume that individuals may engage in one type of training and development and not in another. The composite reliability for these six items was .66, which is above the recommended cutoff of .60 (Hatcher, 1994; e.g., Martins, Eddleston, & Veiga, 2002). Items include "How often have you attended training and development courses run by [name of company]," "How often have you served on committees of any type within [name of company]," "How often have you been involved in interviewing other people for selection/promotion," "How often have you participated in conferences or industry meetings or any other outside meetings as a representative of [name of company]," "How often have you attended training and development courses run by outside organizations," and "How often have you taken on the duties and responsibilities of a higher position than yours for three months or more."

*Career encouragement.* To assess career encouragement we used the six items composing the coaching and sponsorship dimensions of Ragins and McFarlin's (1990) Mentoring Scale ( $\alpha = .96$ ). This scale measures the extent to which a subordinate receives encouragement with regard to advancing his or her career. Like our measure of challenging work, we shifted the referent of the scale to reflect career encouragement received from one's supervisor rather than one's mentor. Items include "My supervisor helps me attain desirable positions," "My supervisor uses his/her influence in the organization for my benefit," "My supervisor uses his/her influence to support my advancement in the organization," "My supervisor suggests specific strategies for achieving career aspirations," "My supervisor gives me advice on how to attain recognition in the organization," and "My supervisor helps me learn about other parts of the organization."

*Managerial aspirations.* Adopting Tharenou's (2001) scale, we measured managerial aspirations with 13 items ( $\alpha = .92$ ). This scale captures the extent to which a subordinate seeks to obtain a position of increased power and influence in management. Example items include "My aspirations are very high in regard to professional recognition and achievement,"

and "It would be good to be in a position in which I could develop, manage, and coordinate the policies and activities of a work area."

*Control variables.* We identified six variables that may influence managerial ratings of career motivation and included these variables as controls in our model. These variables were chosen because they are likely visible or known to one's manager. We also identified four variables that may influence subordinates' ratings of their own managerial aspirations. Both sets of control variables are discussed next.

In terms of control variables for the path in our model between sex and manager-rated career motivation, first, we controlled for the education level of the subordinate. It may be that managers viewed subordinates with higher education levels as being more motivated to achieve career success. Second, we controlled for selection into this organization's self-sponsored management development program. At the focal organization, selection into the management development program indicates that a subordinate is perceived as having high potential as a future manager. The program focuses on building skills one might need in higher supervisory positions. We controlled for selection into this program rather than positioning it as an organizational development variable because we felt managers may have rated subordinates more positively if they knew the organization recognized that subordinate as having high potential, because not all managers were aware that their subordinates were selected into the management development program and because it was possible to nominate one's self for the program. We also controlled for manager ratings of subordinates' work performance by adopting Rupp and Cropanzano's (2002) seven-item scale ( $\alpha = .85$ ). We felt that subordinates' performance may unduly influence managers' perceptions of subordinates' career initiative and motivation. The fourth control variable included in our analyses was number of promotions. Subordinates receiving more promotions may be viewed by their managers as having more career motivation. The final two control variables included in our model were organizational and dyad (manager-subordinate) tenure. Longer organizational and dyad tenure may mean a greater chance of building positive relationships with managers, which may induce a "halo effect" with regard to manager ratings of career motivation.

We also controlled for variables that may have influenced a subordinate's self-rating of managerial aspirations. First, we chose to control for the number of career interruptions subordinates had experienced. Studies on the effects of career interruptions have demonstrated that individuals who take time away from work experience fewer promotion opportunities and reduced compensation upon return (Schneer & Reitman, 1990, 1995). We presumed that employees with more career interruptions may internalize these indicators of lower career success and consequently not aspire to management positions. We also controlled for marital or partner status and the employment status of spouse or partner. Those employees with a spouse or partner may be better able to rely on their partners for assistance with resources necessary to run a home, freeing up time to pursue positions of greater responsibility. As well, employees with spouses or partners who do not work may be more inclined to aspire to management because of the managerial-level income needed to support their households. Finally, we controlled for whether or not an employee had children, our reasoning being that employees with children may be less inclined to aspire to higher managerial positions because it would likely increase the amount of time they

would be required to devote to work, thereby reducing the amount of time available to raise children.

## Results

### *Overview of the Analyses*

Prior to testing our hypotheses, we sought to address two analytic issues. First, because managers rated multiple subordinates' career motivation, we examined whether or not rater effects could explain our results. Second, because subordinates completed multiple scales in our model, we sought to affirm that the subordinate-reported measures were discriminant from one another. We then proceeded to test our hypotheses.

*Rater independence.* Regression analyses assume independence of observations in the dependent variable. However, because managers rated multiple subordinates on career motivation, we sought to examine whether or not manager ratings of career motivation demonstrated group-level properties (Bliese, 2000). To test this, we conducted a within and between analysis (WABA). The WABA results for career motivation yielded inconclusive findings (Dansereau, Alutto, & Yammarino, 1984). The 15° *E* test indicated that manager-rated career motivation did not vary at either the individual or group level (*E* ratio = 1.12); that is, nonindependence of responses was not immediately evident. Thus, taking a conservative approach, when testing the relationship between sex and manager-rated career motivation, we used hierarchical linear modeling (HLM) to partial out the variance in the dependent variable attributable to ratings from the same manager.

*Discriminant validity.* Because subordinate responses were used to measure several variables, we sought to assess the discriminant validity of these scales using two tests: Fornell and Larcker's (1981) discriminant validity test and a confirmatory factor analysis (CFA). To pass Fornell and Larcker's (1981) test of discriminant validity, the average variance explained by the items composing the subordinate-rated scale must exceed its correlation with other variables in the study. Table 1 provides these results, presented along the diagonal. Our data met this condition. We also conducted a CFA on all subordinate-rated measures to further assess their discriminant validity. The data fit the model well,  $\chi^2(318, N = 112) = 491.54$ , incremental fit index (IFI) = .96, comparative fit index (CFI) = .96, standardized root mean square residual (SRMR) = .07 (Kline, 2004), with all items loading on their appropriate latent factor. This test further supports that the subordinate-rated measures are distinct constructs.

### *Test of Hypotheses*

Correlations and descriptive statistics are provided in Table 1. Notably, compared to men, women reported fewer training and development opportunities ( $r = -.35, p < .01$ ), had more

**Table 1**  
**Means, Standard Deviations, and Correlations**

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Subordinate sex (S) <sup>a</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Career motivation (M)	5.11	0.97	-.28**	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Challenging assignments (S)	5.02	1.93	.05	.22*	.93	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Training and development (S)	3.80	1.19	-.35**	.21*	.02	.52	—	—	—	—	—	—	—	—	—	—	—	—
5. Career encouragement (S)	4.82	1.51	.03	.17	.70**	.16	.86	—	—	—	—	—	—	—	—	—	—	—
6. Managerial aspirations (S)	5.55	1.17	-.07	.13	.27**	.27**	.31*	.71	—	—	—	—	—	—	—	—	—	—
7. Subordinate education level (S) <sup>b</sup>	—	—	-.08	.29**	-.10	.09	-.03	-.09	—	—	—	—	—	—	—	—	—	—
8. Selection into management development program (O) <sup>c</sup>	—	—	.24**	.04	.01	-.03	.12	.04	.05	—	—	—	—	—	—	—	—	—
9. In-role performance (M)	5.61	0.83	-.08	.43**	.29**	.11	.27**	.02	.01	-.01	—	—	—	—	—	—	—	—
10. Number of promotions (S)	—	—	-.12	-.10	-.10	.00	-.13	.09	-.22*	.02	-.03	—	—	—	—	—	—	—
11. Dyad tenure (S)	0.88	1.12	.20*	-.09	.05	.02	.09	.08	.03	-.06	-.13	.06	—	—	—	—	—	—
12. Organizational tenure (S)	3.21	1.62	-.11	-.17	.01	.00	-.18	.03	-.20*	-.45**	.02	.14	-.06	—	—	—	—	—
13. Number of career interruptions (S)	—	—	.34**	.00	.05	-.04	.05	.07	-.07	.04	.08	.03	.11	.29**	—	—	—	—
14. Marital status (S) <sup>d</sup>	—	—	-.14	.12	.17	-.03	.11	.09	.06	-.12	-.02	.05	.03	.23*	.15	—	—	—
15. Spouse/partner employment status (S) <sup>e</sup>	—	—	-.24*	.16	.11	.06	-.01	.02	.11	-.12	-.05	.07	-.02	.11	-.03	.78**	—	—
16. Children (S) <sup>f</sup>	—	—	.11	-.17	-.03	-.09	-.15	.15	-.15	-.10	-.14	.21*	.07	.20*	.27**	.28**	.35**	—

*Notes:* *N* = 112. The values in the diagonal are the square root of the average variance explained. This value must be larger than the focal variable's zero-order correlations in the same row and column in order to pass Fornell and Larcker's (1981) discriminant validity test. M = variable reported by managers; S = variable reported by subordinates; O = variable reported by organization.

a. Male = 0; female = 1.

b. High school education or less = 1; bachelor's degree = 2; master's degree = 3.

c. No selection into program = 0; selection into program = 1.

d. No spouse/partner = 0; spouse/partner = 1.

e. Spouse/partner not working = 0; spouse/partner working = 1.

f. No children = 0; has children = 1.

\**p* < .05. \*\**p* < .01.

**Table 2**  
**Structural Equation Model Comparisons**

Model	$\chi^2(df)$	IFI	CFI	SRMR	Model Comparisons
Hypothesized model	49.72 (46)	.98	.97	.05	
Alternative Model 1 <sup>a</sup>	47.92 (43)	.97	.97	.05	Alternative Model 1 compared to hypothesized model
Alternative Model 2 <sup>b</sup>	48.78 (45)	.97	.97	.05	Alternative Model 2 compared to hypothesized model
Alternative Model 3 <sup>c</sup>	49.75 (45)	.97	.97	.05	Alternative Model 3 compared to hypothesized model

Note:  $N = 112$ . IFI: incremental fit index; CFI = comparative fit index; SRMR = standardized root mean square residual.

a. Path between subordinate sex and challenging work, training and development, and career encouragement added.

b. Path between subordinate sex and managerial aspirations added.

c. Path between manager-rated career motivation and managerial aspirations added.

\* $p < .05$ . \*\* $p < .01$ .

career interruptions ( $r = .34$ ,  $p < .01$ ), and were rated by their managers as lower in career motivation ( $r = -.28$ ,  $p < .01$ ).

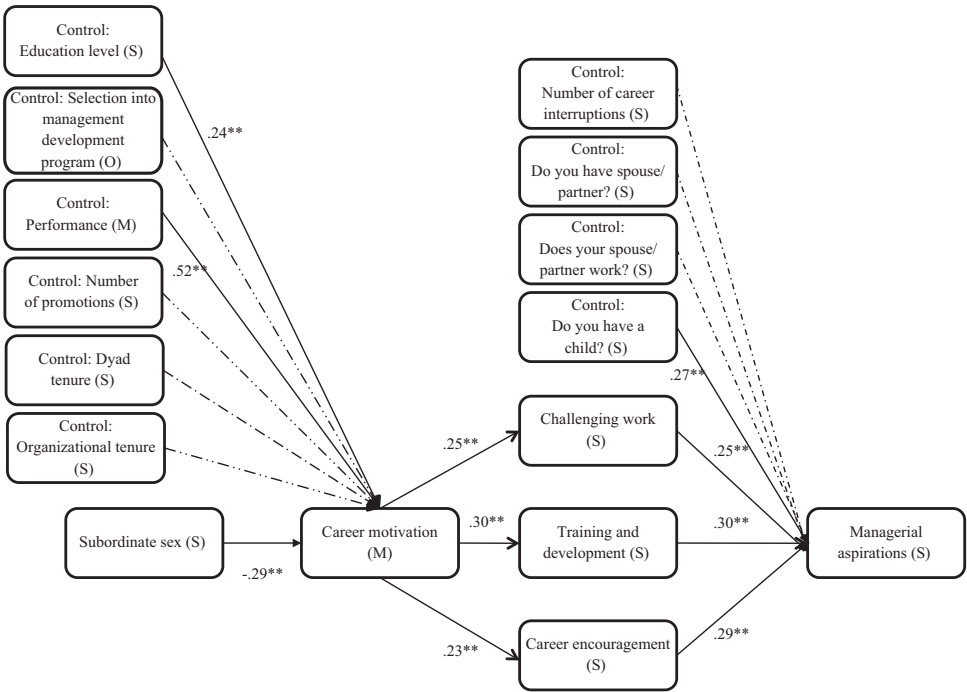
*Structural equation modeling.* We tested our hypotheses using structural equation modeling. Maximum likelihood estimation was used to analyze the covariance matrix with LISREL 8.71 (Jöreskog & Sörbom, 1993). Structural equation modeling has many advantages. It allows researchers to assess the relative impact of each variable in a model as it relates to the total variance explained. This technique also allows us to model the measurement error associated with each variable.

Our sample size ( $n = 112$ ) was smaller than recommended to run a full structural equation model. Thus, we used a single-indicator approach (Jarvis, MacKenzie, & Podsakoff, 2003; Sass & Smith, 2006; e.g., Rindova, Williamson, Petkova, & Sever, 2005; Tekleab, Takeuchi, & Taylor, 2005). This approach specifies that the path between the focal variable and the latent variable be set to the square root of the reliability. The error associated with the focal variable is then set to 1 minus the reliability times the variance. The single-item control variables in the model (subordinate education level, selection into management development program, number of promotions, organizational and dyad tenure, number of career interruptions, having a spouse or partner, spouse or partner employment status, and having a child) were assumed to be measured without error.

Our hypothesized model fit the data well:  $\chi^2(46, N = 112) = 49.72$ , IFI = .98, CFI = .97, SRMR = .05 (Kelloway, 1998; Kline, 2004). However, to address whether an alternative model might result in an improvement in fit, we tested a series of model comparisons (Anderson & Gerbing, 1988). As shown in Table 2, we first sought to examine whether manager-rated career motivation fully or partially mediated the relationship between subordinate sex and challenging work, training and development, and career encouragement. This alternative model, which included direct paths between subordinate sex and the organizational development variables, was not significant, suggesting full mediation. Alternative Model 2 tested whether subordinate sex had a direct effect on managerial aspirations (subordinate rated). Again, this alternative model was not significant, and the path between sex and managerial aspirations failed to reach significance. The final alternative model tested whether challenging work, training and development, and career encouragement fully or



**Figure 2**  
**Path Estimates**



Note:  $N = 112$ . M = variable reported by managers; S = variable reported by subordinates; O = variable reported by the organization. Dashed lines represent nonsignificant paths. \* $p < .05$  (one-tailed). \*\* $p < .01$  (one-tailed).

partially mediated the relationship between manager-rated career motivation and managerial aspirations. This alternative model was not significant, and the path between manager-rated career motivation and managerial aspirations was not significant, providing support for full mediation. In sum, our hypothesized model demonstrated the best fit.

Figure 2 provides the standardized path estimates. All hypotheses were supported. The full model explained 31% of the variance in managerial aspirations.

*Hierarchical linear modeling.* Our WABA results suggested that there was a possibility that manager-rated career motivation did not conform to the assumption of independence in the dependent variable—that manager ratings of one subordinate may have influenced his or her ratings of another (Bliese, 2000). Thus, we used HLM to address this issue. HLM partials out the variance in the dependent variable that is attributable to the nested effect of being rated by the same manager. Hypothesis 1 was supported; after including the six control variables, subordinate sex was strongly and significantly associated with decreased manager

ratings of career motivation ( $\gamma = -.46$ ,  $t = -3.08$ ,  $p < .01$ ), such that women were perceived as being lower in career motivation than men.

### *Supplementary Analysis*

Because our model is grounded in the “think leader, think male” perspective and because recent research has shown that these stereotypes may be held by both males and females in the workplace (Hoobler et al., 2009), we were interested in whether managers’ sex impacted their ratings of their subordinates’ career motivation. Consistent with initial research showing these biases to occur regardless of one’s gender, our ANOVA test found no effect of managers’ sex on ratings of subordinates’ career motivation ( $F = .226$ ,  $p > .05$ ).

## **Discussion**

In a matched sample of *Fortune* 500 subordinates and their managers, we supported a model whereby subordinates’ sex is significantly related to the degree to which they are perceived as career motivated by their managers, which in turn is related to the amount of organizational development that they accrue and, ultimately, the degree to which they aspire to pursue managerial positions. First, we found that even when controlling for subordinates’ education level, performance, promotions, selection into a management development program, and the length of time they had been with their current manager and their organization, being a female was associated with managers’ assessments of lower career motivation. When examined from the perspective of social role theory, this finding seems to support the persistent view that men are viewed as more suited for management careers (“think leader, think male”) and that women will suffer negative evaluations when they occupy or seek traditionally male-typed jobs (Heilman et al., 1988). Interestingly, we found that both male and female managers perceived female subordinates as lower in career motivation. While Duehr and Bono’s (2006) and others’ (Brenner, Tomkiewicz, & Schein, 1989; Dodge et al., 1995) work has supported that women today perceive both genders as equally likely to possess characteristics necessary for managerial careers, our finding suggests that perhaps little has changed in the area of gender stereotyping (Lueptow, Garovich-Szabo, & Lueptow, 2001; Scott & Brown, 2006)—even in women’s minds.

The second set of linkages in our model was that managers’ assessments of subordinates’ career motivation should be associated with the degree to which these subordinates received valuable organizational development. We found that career motivation was indeed linked to subordinates’ reports of having received opportunities for challenging work assignments, training and development, and career encouragement from their managers. One interpretation of these significant relationships is that managers are the gatekeepers to subordinates’ advancement. That is, if managers possess favorable attitudes about their subordinates’ career drive, they will bestow upon them resources that have the potential to greatly enhance their career success.

Perhaps encouraging is the strong relationship between managers’ assessments of their subordinates’ career motivation and their subordinates’ reports of having received career

encouragement. On the one hand, it is heartening to interpret this as the idea that managers do notice those who have high potential and strong ambition and that managers act in ways that support subordinates and cultivate their motivation. On the other hand, because our data are not longitudinal, it could be possible that this is simply a self-fulfilling prophecy on the part of managers. That is, perhaps the direction of the relationship is the opposite—that when managers encourage certain subordinates to excel at their careers, they want to believe that they have made a sound decision in evaluating which of their subordinates has high potential; hence, their attitudinal assessments (i.e., the career motivation) of the subordinates whom they have encouraged are positive in nature.

Finally, our model predicted and our data supported the relationship between organizational development opportunities and managerial aspirations. When subordinates reported they had received more (a) challenging work assignments, (b) training and development, and (c) career encouragement from their managers, they also reported higher managerial aspirations. We feel this last set of linkages in our model is particularly important in that it speaks to one reason *why* women may be conspicuously absent from upper level management positions. While many scholars have espoused the importance of organizational development for productivity and performance (e.g., Aguinis & Kraiger, 2009), our results may point to the value of organizational development not just in organizational productivity but also in motivating workers toward vertical progress in their careers. When workers receive opportunities to develop the tools necessary to do their jobs and career encouragement from their direct managers, it seems to put them in the right mindset for career achievement. Our results support Tharenou's (2001) finding that interpersonal support (of which career encouragement could be a type) relates to advancement or, in the case of our study, desire for advancement. As well, our research is in line with other studies that have established that employees interpret training opportunities and other types of development as a signal that their organizations care for and value them (Aguinis & Kraiger, 2009; Kraimer et al., in press); yet we take this a step further to support the idea that organizational investments in employee development bolster employees' own perceptions of their career potential. In regard to gender, Tharenou (2001) found that interpersonal support was especially instrumental in helping women advance to upper management. We believe our findings to be particularly applicable to women's career progress, as women have been found to be both (1) more reliant on formal organizational career management processes (Lyness & Thompson, 2000) and (2) to benefit more than men from career encouragement in attempts to move from middle to upper management (Tharenou, 2001). Summarizing these implications, it seems that formal organizational career management, such as accumulating training and development and challenging work assignments, and interpersonal support, such as manager career encouragement, are effective in pushing middle managers to climb the next rung on the organizational ladder.

Our study has some limitations that bear mentioning. First, our data are cross-sectional. As such, we have less confidence in the order of variables in our process model. For example, as discussed with respect to self-fulfilling prophecy, it could be that those who are granted organizational development opportunities, such as challenging assignments and training and development, are then judged to be more career motivated for having participated in these activities. That is, development may happen prior to career evaluations of

subordinates. Or, perhaps, more realistically, these judgments happen at multiple points in time, for example, upon workers' attainment of development or upon "graduation" from a management development program. If the latter is the case, perhaps the negative evaluations of women may be "overcome" via their organizational development. Similarly, as Day and Allen's (2004) work supports, perhaps psychosocial support actually begets career motivation; that is, perhaps our model should reverse the ordered linkage between career motivation and career encouragement. However, the implications of Day and Allen's study are similarly limiting in that it too was cross-sectional. In the future, longitudinal models may be helpful in bearing out the order of these processes. In sum, a more rigorous test of a process model of this type may include a research sample of newly hired subordinates such that their organizational development and career encouragement are at a base point and the accumulation of both can be assessed in relation to their career motivation.

A second methodological issue lies in our measure of training and development. This measure had a low reliability, indicating that respondents did not report these activities as occurring together or in similar frequency (e.g., participating in conferences or industry meetings *and* taking on the duties and responsibilities of a higher position for three months or more). It is likely realistic that subordinates' jobs and the training strategy and opportunities available in this organization influenced which of the six types of training and development respondents reported. This is probably what the low reliability of our measure has captured. In future studies, a better technique may be to employ scales that assess more tailored types of training and development, for example, those that apply directly to a respondent's occupation and organization, to improve measurement properties.

A third limitation of our study is that our model does not rule out the possibility that family-related variables may influence not only subordinates' managerial aspirations but also the salience of managers' gender role stereotypes, that is, the degree to which managers judge their subordinates to be career motivated. Women are generally perceived by their managers to have more family-work conflict (the degree to which family spills over to affect work performance) than their male counterparts, which prompts managers to view these women as being unfit for internal promotion (Hoobler et al., 2009). Biases related to family responsibilities interfering with work may influence a manager's assessment of an employee's career motivation too. Indeed, there are potentially numerous family-related influences on managers' assessments of women's career motivation, for example, the number of children an employee has, the age of an employee's children, and elderly parental care responsibilities.

Fourth, testing our model in one organization can be viewed both as a limitation and a potential strength. It may be limiting in that certain social norms could be in operation in this organization that affect the degree to which women and/or men are expected (see prescriptive stereotyping, discussed above) to aspire to managerial roles. These factors may be strong determinants that would fall outside our model. On the other hand, the use of one organization may be a strength in that it controls for the presence of these cultural norms that would vary from one organization to another, possibly coloring our results.

As far as strengths, we offer that our model was tested with multiple sources of data: subordinate surveys, manager surveys, and organizational records. As well, we performed multiple tests to rule out common-source bias explanations for our results. An additional strength is that we included a fairly substantial set of control variables, which allows us to

rule out some alternative explanations for the results. Finally, this research extends studies that simply document the lack of women in higher level managerial positions, by examining a reason why this may be the case.

## **Managerial Implications**

There are several practical implications that stem from our organizational development model of managerial aspirations. Based on social role theory, our model positions managers' biased perceptions of women's career motivation as a distal predictor of women's lower managerial aspirations. Those who support the idea of the "opt-out revolution" and those who support Pinker's (2002) evolutionary psychological arguments believe that women avoid power and that male models of success and achievement do not interest nor apply to women. Our response, as supported by our theoretical arguments here, is that "choice rhetoric" does not adequately capture the full story. Women's lack of ascension to higher management is at least partly explained by women not getting the opportunities and encouragement, that is, the critical organizational development, necessary to aspire to upper management positions. Hence, this is one explanation for women's "opting-out" of management. Our organizational development model is an alternative to the viewpoint of those who posit women's rejection of the modern-day business world and its values, the idea that men and women hold divergent views of career success, or that women simply lack interest in powerful managerial positions. Instead, we found support for a model whereby both men and women managers' cognitions associate women with lower career motivation.

What can be done to prevent managers from falling prey to stereotypical assumptions about women in managerial roles? As Hoobler and colleagues (2009) suggest, combating these types of subtle biases may be as simple as opening up conversations with managers about stereotypical assumptions, often based in benevolent sexism, that managers commonly harbor regarding women's career paths. Awareness of cognitive traps and behavioral barriers to which managers fall prey may be the first step in managers becoming more self-aware of the ways in which they may limit the career paths of women. For example, uninformed managers may feel good about their decisions to "spare" young mothers from overnight travel to meet with important clients (see Williams & Segal, 2003) until their attention is drawn to how these choices may actually be harmful to the development of those subordinates.

As well, it is important for practitioners to understand that while opting out is not the revolution the popular media purport it to be, some women are still, based on our model, choosing not to aspire to the executive suite. When they lack the experiences, skills, and encouragement necessary, they may see the top positions as out of reach. Soles and colleagues call attention to how messages about ambition and achievement become "an intimate part of women's own aspirations" and challenge organizations to become active in fostering a new discourse—one that does not tolerate "think leader, think male" in actions or words (2007: 430). In practice, some organizations have tackled the goal of building employees' awareness about such tacit mental models that drive human behavior (e.g., McCracken, 2000). Admittedly, results of these initiatives have been mixed, and they may not prove sustainable (Bilimoria, Joy, & Liang, 2008), yet these interventions may be a first step at addressing systematic biases that stand to impede women's career advancement.

As far as the importance of career encouragement specifically, our study echoes the critical importance of mentoring for women's career advancement. Managers must first identify women who do seek upward mobility. Recent work on mentoring relationships suggests that individuals who self-initiate mentoring often want to move up in an organization's hierarchy (Blickle, Witzki, & Schneider, 2009; Turban & Dougherty, 1994). As such, women who actively seek to form relationships with individuals with greater power or influence, seek assignments that improve their visibility, and more generally take the initiative in seeking out support on career-related issues are sending clear signals that they wish to be mentored. Managers responding to these signals can, in turn, offer many mentoring benefits. One of the greatest benefits of engaging in a mentoring relationship is providing the mentee with access to the mentor's network. Mentors who provide access to their professional contacts allow mentees to develop social capital via connections to a broad range of resources (Lin, 2001) including career support, expertise, role modeling, and development. As such, managers should realize the importance of mentoring that comes from managers themselves as well as from those within their professional networks.

Extending our findings, we point to the accumulation of organizational development as important not just in predicting who will advance through the organizational ranks but also to other human resource considerations such as turnover. For example, the greater the investment in the development and availability of career opportunities, the less likely an employee is to leave his or her organization (Kraimer et al., in press) and drop out of the labor force altogether (Blau, Ferber, & Winkler, 1998). Furthermore, women who have acquired more types of work experience have been found to be more likely to return to work following maternity leave (e.g., Glass & Riley, 1998). Therefore, tracking and analyzing organizational development via human resource information systems may be useful not just in selection and promotion decisions but also for diversity and workplace planning considerations.

### Suggestions for Future Research

As Correll's (2001) work on gender and career choice argues, in order for a person to continue along a path toward a given career, he or she must have positive *self*-assessments in relation to the skills and tasks necessary for that role. In Correll's work, gendered perceptions of mathematical competency ("men are good at math, women aren't") explained gender differences in decisions to persevere toward careers in science, math, and engineering. Our model assesses the impact of *managers'* assessments on pursuit of managerial jobs. But a more holistic approach may be to enlarge the focus of future studies to measure the combined impact of evaluative messages workers get both from superiors *and* from the self in determining whether to progress upward in organizations, as well the impact that social roles exert on these relationships.

Another suggestion for future research is to explore potential moderators of the relations in our model. Our model suggests that managers view women as having lower career motivation compared with men. Exploring this further, it would be beneficial to investigate whether these perceptions are more prevalent depending on the level of position. For example, managers' perceptions of women's lower career motivation may be more likely for women holding

higher level, time-demanding positions. This managerial bias against women may be less prevalent in lower level positions. Second, an idea for future research comes from an unexpected finding in our model: that subordinates who reported having a child or children had higher managerial aspirations. We interpreted this as a practical matter of workers pursuing higher level, higher paying jobs when they had more mouths to feed, but perhaps this signals a new trend in work and family whereby the "mommy track" (mothers putting aside or downshifting their careers to focus on family) could be a thing of the past. Future research could explore "third variables" such as need for achievement that may explain the desire both to have a family and to have a successful career, that is, the desire to have it all. Cohort studies comparing contemporary women's desires to pursue both a family and a high-level career with those of earlier generations may be a way of testing this phenomenon.

Finally, as an anonymous reviewer suggested, an extension of our study is likely found in the literature on why women choose to leave larger business organizations and become entrepreneurs. The story of our model ends with women's (low) managerial aspirations, but what happens next? Are women content to stay in jobs with lower authority and responsibility, or do they look elsewhere for career opportunities? Winn found the "lure of entrepreneurship" for American women to be striking, with a dramatic increase not only in the number of privately held women-owned firms in recent years but also in the sales revenue and jobs generated by these firms (2004: 145). The expanding population of female entrepreneurs with corporate or management experience has been labeled "careerpreneurs," "corporate incubators," and "second generation" entrepreneurs (Gregg, 1985; Moore, 2000; Moore & Buttner, 1997; Terjesen, 2005). The modern vision of the career is that workers are less wedded to particular organizations and more "boundaryless" (Arthur & Rousseau, 1996). Women are especially suited to reap the benefits of this new "post-hierarchical" career (Mainiero & Sullivan, 2005; Sullivan, 1999), as they pursue entrepreneurial careers as a way of getting "out from under the glass ceiling" (Mattis, 2004: 155). And our model is one potential explanation of the processes that compel them to do so. Future studies of women entrepreneurs may add women's lack of organizational development opportunities to the factors proposed (e.g., lack of flexibility and challenge, lack of role models and mentors; Mattis, 2004) as catalysts for female organizational exit and entrepreneurial pursuits.

## Conclusion

In contrast to popular press articles that suggest that women, through their own choosing, opt-out of career paths leading to upper management positions, this study examined whether manager biases affect this process. Social role theory formed the basis of our model that proposed that due to gender biases, managers perceive their female subordinates as less career motivated compared with males. These perceptions, in turn, were related to fewer organizational development opportunities and lower managerial aspirations for females. Our results provided support for this model, highlighting the critical role of biased manager perceptions on women's career development opportunities and career aspirations. Thus, whether women pursue a higher level management position is less likely a "natural choice" and more likely a complex process in need of continued exploration.

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