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GENDER DIFFERENCES IN ADVANCING TO THE TOP

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Abstract

Recently, there has been much empirical interest in why women are so poorly represented in executive ranks in organizations. This review summarizes the findings from recent empirical studies into the causes of gender differences in advancement to executive levels. The results are categorized to answer three questions based on the major arguments for, and assumptions made about, gender differences in advancement to the top of organizations. Are there gender differences in advancing to the top of organizations because (1) women lack the relevant knowledge, skills, and expertise; that is, human capital? (2) women lack the relevant networks, are stereotyped as unsuitable, and are in male organizational cultures; that is, social capital? and/or because (3) different factors are needed to advance to higher than lower levels; women incrementally develop fewer of these factors and resources than men, and thus advance less to the top?. The review most supports the second proposition. Surprisingly, even though there are many studies, several critical questions have not been addressed with strong research designs. Research using rigorous designs is especially needed to test the major theoretical frameworks.

GENDER DIFFERENCES IN ADVANCING TO THE TOP

Despite women forming about half of the workforce in most developed countries, they comprise fewer than 5% of senior executives (International Labour Organization [ILO], 1997; Korn/Ferry International, 1993; Townsend, 1996). This is so even in countries where women form more than the international average of 20% of managers (ILO, 1997). The outlook, moreover, looks bleak. Once sufficient numbers of women had entered lower management, they were expected with adequate years experience to rise in ranks to form a pool to eventually advance to upper levels. However, there is no empirical support for a pipeline effect (e.g., Ragins, Townsend, & Mattis, 1998). In most countries, women plateau at lower management, or at best, as in the U.S., at lower and middle management (ILO, 1997). Moreover, in the last 20 years, women executives rose by only 1% to 2% to form 5% of executives as a whole (Korn/Ferry International, 1993). The aim of this paper is to review the evidence for why there are such dramatic gender difference in advancement to the top of organizations. The review examines advancement to executive level, and also to its feeder group of upper management, the level directly preceding the executive level.

There are four major types of studies. There are studies asking women executives about, or comparing women and men executives on, the factors that helped and hindered their advancement to the top. They use single-item survey data analysed by frequencies, and/or use interview data. Their results are thus open to several interpretations. There are also studies comparing men and women executives on demographic and experiential factors by univariate comparisons. Their results are often descriptive. There also are the studies of gender differences in the importance of organizational, interpersonal, and individual factors to the advancement of executives or upper managers. These are quantitative multivariate studies, usually cross-sectional in design, with some longitudinal. They use either self-report data or objective data from records, and either control for sample differences by matching or by multivariate analyses. These have fewer alternative interpretations than the previous studies. There are also cross-level or multi-stage studies that examine the factors that lead to gender differences in advancement from lower to higher management levels. These are longitudinal studies starting in early career, or at subordinate levels, tracking gender differences in individuals' advancement through to mid-career, or to upper manager and executive levels, from several factors. They help overcome problems with interpretation of cross-sectional studies because women executives are atypical of other women and of male counterparts (Ragins & Sundstrom, 1989). Hence, the barriers and strategies women executives identify retrospectively may not be what stops or helps other women to advance. The executive level is also the wrong sole focus. The glass ceiling -- the invisible barrier that prevents women and minorities rising upwards in management -- is found at lower or middle management levels (Naff, 1994; Schneer & Reitman, 1995; U.S. Department of Labor, 1991), not as first thought at the upper manager-executive transition. Studies that track causes of gender differences to upper manager and executive ranks from lower levels and early career thus allow an examination of what stops women rising in managerial ranks compared to men.

There are two major explanations for gender differences in advancement to executive levels. The first concerns gender differences in investments in human capital (i.e., skill and knowledge). Investments in human capital result in rewards of pay and job status but, because women make fewer investments than men, they gain fewer rewards (Becker, 1993), including advancing less. Male U.S. and Canadian CEOs rated lack of general management and line experience and tenure as the major reasons women do not advance to executive levels (Catalyst, 1996; Davies-Netzley, 1998; Griffith, MacBride-King, & Townsend, 1997; Ragins et al., 1998). Hence, women lack the necessary skills, knowledge and expertise to advance to the top, unlike men. Expertise causes advancement; selection is based on merit. The assumption is that the process for advancement is the same for men and women.

The second explanation is that women are prevented from advancing to the top by stereotypes, lack of support, and exclusion from networks. This is social capital -- the way individuals are embedded in organizations -- their position in the web of social relations that provide information and support (Brass, 1994). Social capital is the standing an individual has in an organization and the concurrent ability to draw on that standing to influence the actions of others (Brass, 1994). If women are stereotyped as unsuitable for the male-typed executive role, do not fit into male-dominated organizational cultures, and do not have the networks needed, they have few opportunities to advance. In addition, Burt (1998) argued that returns to human capital partly depend on a person's location in the social structure, because their position affects their ability to identify and develop rewarding opportunities. Hence, women have less social capital to advance to the top than men, but can also develop fewer returns to their human capital than men. The assumption is that the process for advancement to executive levels is different for men and women.

There is a third approach, the cross-level approach. In this approach, particular but often different factors lead to advancement from lower to increasingly higher management levels; the differential impact of those factors by level results in women not advancing to executive level (Tharenou, 1997a, 1998). The assumption is that advancement is a progression through stages with the enabling factors favoring men, resulting in women advancing less to the top. For example, Adler and Izraeli (1994) posed that credentials such as education are used to select individuals for lower management jobs, whereas networks are the mechanisms by which individuals advance to executive levels. Women can gain lower management jobs but do not have the relevant networks so they cannot advance to the top.

The empirical evidence in relation to why women do not reach executive levels will be evaluated in terms of these three broad propositions.

DOES HUMAN CAPITAL EXPLAIN GENDER DIFFERENCES IN ADVANCING TO THE TOP?

Individuals develop the knowledge, skill, and expertise needed for top management through a number of activities: advanced education, substantial industry or company tenure, management development, challenging and broadening work assignments, line or general management experience, job changes or mobility, and performance and effort. Studies that are able to test whether human capital is the reason women do not advance need to be examined.

Does Human Capital Cause Men to Advance to the Top More Than Women?

The results of quantitative studies are not consistent as to whether human capital is the reason women do not advance to executive levels compared to men. Naff (1994) conducted focus groups of women U.S. Federal Government upper level managers and executives asking what limited their advancement. They said that the barriers were perceptions that women could not relocate for work; mothers could not work the long hours needed, attend late meetings, or travel for high level jobs; and married women did not need to advance, like men, to support their families. When Naff (1994) controlled for women's lesser human capital (formal education, years service, relocations) than men's for 8400 public servants ranging from subordinates to executives, she found that women still received fewer promotions than men and reached lower grade levels. Women's promotions stalled at the levels preceding lower or middle management ranks. Tharenou (1997b) concluded from her review of studies of samples of similar levels that, after controlling for human capital, women reached lower managerial levels than men. Tharenou (1998) found in a longitudinal, cross-level study that human capital similarly helped men and women advance into middle management and onto upper management. Hence, women advance less than men despite their human capital, but it is not clear if human capital is also the reason women advance less than men.

Overall, studies find women and men executives similar in human capital, suggesting women with as much human capital as men will get to the top. Women and men executives did not differ in promotions or level after controlling for human capital, although women were paid less than men (Judge, Cable, Boudreau, & Bretz, 1995; Truman & Baroudi, 1994). In studies using univariate analyses, women and men executives reported similar education (Bullard & Wright, 1993; Mani, 1997), development opportunities (Lyness & Thompson, 1997), work experience (Olshfski & Caprio, 1996), personality, leadership behaviors, leadership style, and management skills (Mani, 1997; Morrison, White, & Van Velsor, 1992), breakthroughs (Korn/Ferry International, 1993), and hours worked per week (Bullard & Wright, 1993; Korn/Ferry International, 1993). Overall, the studies comprising univariate gender comparisons do not allow an interpretation of whether the women who did not advance to executive levels lacked the human capital to do so.

Some specific kinds of activities, those of job relocation and employment continuity, may result in women advancing less to executive levels than men. Lyness and Thompson (1997) compared 51 women executives to 56 matched male executives in a financial services firm. Although similar in developmental opportunities, women had more employment interruptions, fewer overseas assignments, and intended to remain less than men. Because of employment interruptions, women advanced less in managerial level by mid-career than men, including to executive levels (Schneer & Reitman, 1997). The interruptions, unlike men's were from family duties, as reported by women executives (Korn/Ferry International, 1993).

Women executives clearly report family roles as problems for their advancement, and male CEOs and executives hold stronger perceptions than women about the negative impact of women's families on the work required for executive levels (Catalyst, 1992, 1996; Davies-Netzley, 1998; Griffith et al., 1997; Korn/Ferry International, 1993; Naff, 1994). Multivariate studies show that family roles do not affect women advancing to the top. Tharenou (1995) found that it was not because of a family and employment interruptions that Australian women top managers did not advance to be CEOs. Tharenou (1998) found in a cross-level longitudinal study of Australian employees that marriage and children did not predict women's advancement into management and up to upper manager level, nor men's. This is consistent with Tharenou's (1997b) review of empirical studies, concluding that marriage and children had no or little effect on women's or men's advancement in management.

Job moves can develop human capital. Women report leaving their organizations to advance more than men do. This may increase their general human capital, but it reduces the company-specific skill, knowledge and expertise, and the substantial tenure needed to advance to executive levels (Tharenou, 1997b). Tharenou (1998) found that relocation predicted Australian women's but not men's entry to management, advancement to middle manager (also changing organizations), and advancement to upper manager. Women appeared to leave because of male managerial hierarchies. Davies-Netzley (1998) found in a very small sample that U.S. women Presidents and CEOs reported, unlike their male counterparts, that earlier in their careers they had to leave large firms for smaller ones to overcome blocks to their advancement. By contrast, like men executives, women executives left organizations most frequently for increased challenge and responsibility (Korn/Ferry International, 1993). Canadian executive women reported they left organizations for advancement and compensation, intellectual stimulation and a different kind of work, and compatible organizational values, but not for family reasons like their CEOs thought (Griffith et al., 1997). Bullard and Wright (1993) found that women agency heads in the U.S. state public sector gained their jobs through external entry more than men. Overall, women executives leave to gain advancement because of barriers, the nature of the work, and incompatible social situations (see also Marshall, 1995; Riley & White, 1994) more than do men.

Do Women Have to be More Effective than Men to Advance to the Top?

Eagly, Karau, and Majkhijani's (1995) meta-analysis of 96 studies showed men to be more effective in first-line management positions and women more effective than men in middle management positions, on both objective and subjective measures. Bass and Avolio (1994) found that direct reports rated top U.S. women executives as more effective than male counterparts in the same companies and higher on transformational leadership and extra effort. Kaufman, Isaksen, and Lauer (1996) assessed if women had to be more innovative than men to advance to executive levels for Norwegian managers at lower, middle, and upper manager or executive levels. They found women more innovatively-oriented than men at executive levels, whereas men were more so than women at lower management levels. They found no support for women not being in the workforce long enough. The interaction between innovation and level held with age controlled. Kaufman et al. (1996) interpreted their results as supporting automatic stereotypical schema-based perceptions of leadership. Because women are gender-stereotyped as unsuitable for management, more so the higher the level, women have to be superior to men to advance to highest levels.

Consistent with the studies showing women's superior performance to men at higher than lower levels, U.S., U.K. and Canadian executive women reported having to work harder than men, to consistently need to exceed performance expectations, to need to over-perform to counter negative assumptions in male-dominated environments, to need more experience than men to establish credibility, and to being held to higher standards (Bierema, 1996; Catalyst, 1992, 1996; Griffith et al., 1997; Mainiero, 1994a, 1994b; Naff, 1994; Ragins et al., 1998; Riley & White, 1994). Indeed, men executives, as well as women executives, reported that women are held to higher standards than men to advance to those levels (Catalyst, 1992). Overall, women who advance to higher management levels are likely superior performers than men counterparts.

Does Human Capital Help Women to Advance to Executive Levels More than Men?

There is also the view that human capital may help women to advance to executive levels more than men. Compared to men executives, women reached executive levels at more rapid rates (Bullard & Wright, 1993) and had less tenure (Korn/Ferry International, 1993). Powell and Butterfield (1994) analysed records from a U.S. Federal public sector agency for selection to the senior executive service. Employment in the hiring department, fewer years work experience, and high performance ratings predicted positive evaluations for the positions, referrals to the final decision-maker, and actual selection (only performance). Women had these factors more than men. Although panels evaluated women more highly and referred women more often than men, they did not select women more often than men. Moreover, women formed only 12% of the applicants for senior executive positions and 25% of the feeder group of upper management. This suggests that women will remain under-represented as executives at low proportions. In a further study, women but not men of color were selected more than non-colored applicants for executive jobs (Powell & Butterfield, 1997). Despite this, white men held 75% of the department's executive positions and of the upper management pipeline. Overall, women can be advantaged over men in the process of advancement through quicker promotion, but they are still unlikely to become executives.

Do Managerial Traits Cause Gender Differences in Advancing to the Top?

The results of quantitative studies suggest that traits are not why women advance less than men to the top. Tharenou (1995) found that self-confidence and attributions for success did not differentiate matched samples of Australian men CEOs, women CEOs, and women top managers. If women CEOs advanced based on these traits, they would have presumably have had more of them than either the men CEOs or the other women top managers. Tharenou (1998) found in a cross-level longitudinal Australian study that both men and women high in managerial aspirations and masculinity advanced into lower management and up to middle manager; traits did not predict advancing to upper manager level. Measuring personality prior to entry to management for U.S. telephone company employees, men and women high in the leadership motive pattern advanced to upper manager and executive levels rather than stayed middle managers 12 years later (Jacobs & McClelland, 1994). Hence, leadership motivation and fit (e.g., masculinity) help women advance to the top just as they do men.

Is Human Capital More or Less Important Than Social Capital?

Some studies suggest that human capital is less important than social capital for women's advancement to the top. But the answers depend on whom you ask.

Supporting the importance of human capital, U.S. and Canadian top women executives rated exceeding performance expectations and seeking out difficult or visible job assignments in early career as the first and third most frequent causes of their advancement (Catalyst, 1996; Griffith et al., 1997; Ragins et al., 1998). Supporting the importance of social capital, they rated developing a management style comfortable to male managers as the second most frequent factor. The women also rated support from influential mentors and networks of influential colleagues as frequent facilitators. In terms of barriers, the women executives rated male stereotypes and preconceptions about women's roles as the most frequent. Also frequently rated barriers were exclusion from male networks and inhospitable corporate cultures (Catalyst, 1996; Griffith et al., 1997; Ragins et al., 1998). Yet, all these barriers were rated infrequently by their CEOs. Unlike the women, their CEOs rated women's most frequent barriers as lack of human capital of general management or line experience with profit and loss responsibility, and women not having been in the pipeline long enough (Catalyst, 1996; Griffith et al., 1997; Ragins et al., 1998). In a very small sample, U.S. male CEOs and Presidents said it was because women lacked the necessary knowledge and skills required, and could not put in the time because of family conflicts (Davies-Netzley, 1998). By contrast, the Women Presidents and CEOs said it was because of lack of social capital: all male networks and lack of similarities with male peers. Overall, from women's views, social factors, not human capital, lead to their advancing less than men. But men CEOs think women do not advance because of skills and knowledge.

Morrison et al. (1992) had savvy insiders rate the factors that most helped upper managers and executives advance in their companies, initially for men, and three years later, in another study, for women. The ratings of successful women were higher than successful men on social capital -- help from above, an ability to manage subordinates, having an impressive image, and being easy to be with -- but also higher on human capital (traits) of a desire to succeed, willingness to take risks, and being tough, decisive and demanding. Savvy insiders rated women and men as derailing from upper manager and executive levels for similar reasons. However, ratings of women derailers were higher than men on subjective factors related to dealing with others: a poor image, wanting too much/too ambitious, and an inability to adapt. Men's ratings were higher than women's on poor relationships and also performance problems. The latter suggests men derail more from poor performance than women and women derail more from subjective social factors than men. However, there were no statistical tests of gender differences and the studies were conducted at different times.

Overall, social capital is rated more frequently than human capital as linked to women's advancing or not advancing to executive levels. Social capital provides more barriers for women and women need to cultivate social capital more than men to advance.

Summary and Future Research

It is not clear if human capital is the reason women do not advance to top management as much as men. Women do not advance as much as men when human capital is taken into account, but women and men executives have similar human capital. Women leave their organizations to advance to upper manager and executive levels more than men do, and women need to be more effective than men to advance to high management levels. Women are not advantaged by less human capital (e.g., tenure) to advance to executives levels than men. Managerial traits similarly help men and women to advance to upper manager and executive ranks. Social capital, overall, is likely more important than human capital for women's lack of advancement. However, CEOs think lack of relevant experience is the major reason women do not advance to the top, rather than social factors.

There are several issues in relation to human capital that are not clear. Are gender differences in advancing to executive levels caused by women having less human capital than men?. There need to be rigorous longitudinal tests of the extent that lack of line and general management experience, tenure, and participation in difficult visible work assignments by women supervisors and lower managers compared to men leads to gender differences in subsequent advancement to the top. Even if gender discrimination occurs, it may still be lack of human capital that is the overwhelming influence. There also needs to be systematic investigation of whether men are offered more of the types of activities that develop human capital for advancement to executive levels than women are. Studies need to evaluate the effects of increasing the relevant human capital of women in early and mid-career. Does moving women into line management early in their careers increase their subsequent proportions at high management levels, taking into account social factors? There need to be tests of the "compensatory" theses; for example, that women need to develop specialist expertise more than men to advance to executive levels (Ragins & Sundstrom, 1989).

A further issue that requires research is the labor turnover of women. Are the factors that reduce women's advancement to top management also those that result in their leaving their jobs? Do these factors operate increasingly from lower through to middle levels in a way that results in few women being available to advance to the top? Contrasting explanations of women's turnover need examination: incompatible social situations, lack of stimulation and challenge, lack of rewards and advancement opportunities, and family roles. The impact of women's family factors on the career choices that affect their subsequent managerial advancement need to be assessed, but these do not appear to be why women leave. Importantly, future research needs to examine the impact of men's perceptions about women's family duties on their offers of activities leading to advancement to the top (e.g., relocation).

DOES SOCIAL CAPITAL EXPLAIN GENDER DIFFERENCES IN ADVANCING TO THE TOP?

Women executives consistently report the major barriers to their advancement as interpersonal factors of stereotypes, discrimination, male-dominated cultures, and exclusion from networks (Catalyst, 1992, 1996; Davies-Netzley, 1998; Griffith et al., 1997; Korn/ Ferry International, 1993; Marshall, 1995; Ragins et al., 1998; Riley & White, 1994). If these social processes are accurately described, women would have less social capital for gaining information and opportunities to advance in management than men.

Do Women Advance Less to the Top than Men from Gender Stereotypes?

Several theories argue that discrimination (Heilman, 1997), social roles (Eagly, 1987), and organizational culture (e.g., Marshall, 1993) explain gender differences in advancement to executive levels. The theories are based on gender stereotypes. Based solely on sex, these are widely shared beliefs about the attributes of individual men and women (Heilman, 1997) or shared expectations that apply to individuals on the basis of social roles (Eagly, 1987). Men are stereotyped as strong and active -- decisive, independent, masterful, assertive, rational, objective, self-confident and self-competent (Eagly, 1987; Heilman, 1997). Women, on the other hand, are stereotyped as warm and expressive including concerned with others, friendly, unselfish, emotional, nonobjective, insecure, indecisive, and dependent.

Heilman (1997) argued that feminine attributes are perceived not to "fit" the "male" executive role, especially by men, leading to women not breaking the glass ceiling. Upper management jobs are male sex-typed jobs. So the skills and attributes required for them do not correspond to the attributes ascribed to women as a group. Heilman (1997) argued that discrimination therefore arises against women because women candidates for these jobs are expected to fail. Indeed, women are perceived as a risk in terms of placing them into line jobs, or supervising men (Catalyst, 1992). Heilman (1997) proposed that sex stereotyping is worse under certain conditions that arise more severely as one moves toward the top of organizations. These include when women are numerically scarce and gender thus most salient, when performance criteria are ambiguous, and when decision-making is unstructured.

Indeed, U.S. and Canadian women executives reported that the most important barrier to their getting ahead was male stereotypes and preconceptions about women's roles and personalities (Catalyst, 1992, 1996; Griffith et al., 1998; Ragins et al., 1998), as was being a woman or sexism although less than a decade earlier (Korn Ferry International, 1993). U.S. and U.K. women CEOs reported discrimination during their careers for promotion (Davies-Netzley, 1998; Riley & White, 1994). In the Victorian public sector in Australia, women executives reported more discrimination than men, over 3 years (Hede, 1992). Consistent with these views by women, male MBA students in the southern U.S. reported negative attitudes to women as executives, similar to results 16 years earlier (Everett, Thorne, & Danehower, 1996). The greater the negative attitudes, the lower was students' principled moral reasoning.

Eagly (1987) proposed that the greater the extent to which women violate gender role expectancies, the more likely they are to suffer prejudice. Women violate gender role expectancies when occupying leadership or managerial roles because the roles are aligned to stereotypically male qualities and thus the male gender role (Eagly et al., 1995). The violation is greater as the leadership role becomes more male-dominated and has more male subordinates; so women are less likely to advance to executive roles than to lower managerial levels. Based on Eagly's (1987) theory, the more the executive position is gendercongruent for women, the less prejudiced should be the reactions against women because women violate gender-role expectations less. Hence, women executives should be in female jobs.

In support, women executives (a) work in female-dominated industries such as community service rather than male-dominated industries (Affirmative Action Agency, 1996; Tabak, 1997); (b) work in "female" jobs that use feminine qualities such as staff positions (e.g., human resources, public relations) rather than in line or operations management or in sales and marketing jobs (Catalyst, 1992, 1996, 1997; Korn/Ferry International, 1993; Townsend, 1996); and (c) head or work in female-typed state agencies in the U.S. (library, personnel, social services) rather than male-typed agencies (Bullard & Wright, 1993; Guy & Duerst-Lahti, 1992; Riccucci & Saidel, 1997). In a laboratory study using scenarios, Atwater and Van Fleet (1997) found that male and female business students from a southwestern U.S. university were more likely to select a woman than a man for a female mid-level or executive-level university job. Women were chosen even when less qualified, especially by students with management experience. Because the design was not fully crossed (there were only more qualified men, not women; only female not male jobs), the result for qualifications is unclear. Overall, women executives work in female jobs consistent with gender-role stereotyping of women, but also with the lower pay and less power of these jobs than for male jobs.

The approaches based on male-dominated cultures are also based on gender roles. Marshall (1993) posed that organizational cultures are based on values and characteristics associated with masculine gender-role stereotypes; those associated with feminine gender role stereotypes are suppressed or muted. Her thesis was that the assumptions of organizational cultures are so gendered in nature that male values are ingrained and male ways programmed and taken-for-granted. These are high context, automatic features of culture, rather than low context features. Indeed, women executives reported inhospitable corporate cultures as barriers to their advancement (Marshall, 1995; Ragins et al., 1998; Rusaw, 1996). Less fit with culture and lack of personal support arose for women executives the higher the level, but not for matched men executives in a U.S. financial services firm (Lyness & Thompson, 1997).

Marshall (1993) argued that women are marginalised in male-dominated cultures. This means they need to adapt to, and blend in with, the culture to gain acceptance, and to learn how to play the game competitively. U.S. women executives reported needing to use these behaviors to advance (Catalyst, 1996; Davies-Netzley, 1998; Griffith et al., 1997). They included reducing feminine qualities and modifying their conversations. U.S. and Canadian top executive women reported the second most frequent factor for their success was developing a style with which men felt comfortable, one that was not particularly masculine or feminine (Catalyst, 1996; Griffith et al., 1997; Ragins et al., 1998). Women executives reported that men executives are not comfortable being supervised by, or supervising women (Catalyst, 1992, 1996; Griffith et al., 1997; Ragins et al., 1998). Men, however, may also have to adapt to the top, and there are no gender comparisons.

The women may of course be making attributional errors for their difficulties in advancement. Partly refuting this bias is some independent validation. Schreiber et al. (1993) found that 304 human resource professionals rated most frequently that the most important barrier (of 18) to achieving diversity in executive and management ranks was traditional managers (white males) being already in place, limiting access to women and people of colour because they have greater comfort with their own kind. Catalyst (1992) reported, from interviews and surveys of male and female executives, human resource managers, and middle managers, that male executives' lack of "comfort" with women was critical to women's lack of advancement, affecting networking, mentoring, performance appraisals, and perceptions of women's work and family commitments (Catalyst, 1992). Schreiber et al. (1993) also found that traditional managers' comfort with their own kind was related to the firms not achieving diversity at executive level and at management level, more so for the former. The human resource professionals did not rate deficiencies in education, organizational savvy, unwillingness to relocate, or difficulties in balancing work and family as the reasons women and people of color do not to advance to management and executive levels in their firms (Schreiber et al., 1993). Achieving diversity at executive and management levels, but less at the former, arose from organizational policies in which diversity goals and considerations were spelt out for performance evaluations, promotion, succession planning, and selection criteria. Overall, there is discomfort, with and negative views toward, women advancing to executive levels from men.

Is it Dissimilarity and Homosocial Reproduction?

Some theories explain gender differences in advancement to top management as due to social dissimilarity, rather than gender stereotypes. Candidates for executive jobs need to be compatible with and fit with senior others to be selected. Therefore, men are favored. Kanter (1977) argued that managers choose people socially similar to themselves to advance. Because most managers are men, they tend to sponsor other men, resulting in homosocial reproduction. Similarity-attraction theory proposes that individuals are attracted to and prefer those similar to themselves (Byrne, 1971), partly because communication and development of trust are easier (Baron & Pfeffer, 1994). Gender differences in advancement from dissimilarity should be greatest at higher than lower levels, because the proportions of men are greater and women are thus most dissimilar. Moreover, work at higher levels is more uncertain and ambiguous and interdependent than at lower levels, and performance harder to judge (Baron & Pfeffer, 1994; Kanter, 1977). This results in more subjective assessments of criteria for the job, and individuals' suitability for it at higher than lower levels.

Studies support similarity-attraction and homosocial reproduction theories. Similarity and support also help explain the few women who advance to upper manager and executive levels. Tharenou (1995) found that 50 Australian female CEOs were discriminated simultaneously from matched samples of 50 male CEOs and 50 female top managers only by interpersonal factors. Women appeared to become CEOs when managerial hierarchies were less proportionately male and they received encouragement from others for their careers. The encouragement came from other women. Not discriminating were organizational factors (training and development, selection), nor individual factors (personality, family roles, work continuity, early background). Using longitudinal data from organizational records, Konrad and Pfeffer (1991) found that women in 821 U.S. universities and colleges were more likely to be hired for vacant executive and upper manager positions when five years previously there were greater percentages of women in the job or in the organization or when the previous incumbent was a woman. Other situational factors (resources, organization size) had negligible effects. Pfeffer, Davis-Blake, and Julius (1995) found that the percentage of women hired for these executive and upper manager positions was predicted by the percentage of women in executive and upper manager positions five years earlier, by having a female CEO, and when the affirmative action officer had high pay by internal comparisons, suggesting the power to get things done. Overall, similarity-attraction processes help explain women advancing to the top. However, because managerial hierarchies at the top are mostly male, women are unlikely to advance.

How Do Networks and Mentors Affect Gender Differences in Advancing to the Top?

U.S. and Canadian women executives rated exclusion from informal networks as the first or second most frequent barrier to their advancement over their careers, unlike their male CEOs' reports of them (Catalyst, 1996; Davies-Netzley, 1998; Griffith et al., 1997; Ragins et al., 1998). Women executives report that it is hard to network, requiring substantial formal effort, unlike men who reported it was automatic and informal (Schor, 1997). Women executives said this was because of men's discomfort with women, whereas men do not mention problems with networking (Catalyst, 1992). To advance, the women reported needing more interpersonal assistance throughout their careers from multiple relationships (networks, mentors) and for many functions than men. Men reported needing little assistance and for limited functions (Schor, 1997). These subjective data may only reflect men's not wanting to admit any help. As well, women executives reported that they advanced because they relied on networks of women friends and peers often external to their organizations to sustain them in their attempts to get to the top (Davies-Netzley, 1998; Riley & White, 1994; Schor, 1997).

Burt (1992) explained how networks lead to advancement. Large informal networks in which the contacts within the network are weakly connected provide individuals with more information and options, and thus control, than do cliques. This is because the networks are additive rather than overlapping. Analysing objective data from a high technology firm for upper managers and executives below vice-president, Burt (1992, 1998) found this thesis applied only to men. For women, networks dominated by strong ties to strategic sponsors beyond their boss and few interconnected, redundant contacts (cliques) led to greatest promotions, especially to highest executive ranks. These contacts were overrepresented by other women, but Burt (1998) concluded that hierarchical networks were the most important reason. When women had a strong sponsor, they advanced more to executive levels and early. Burt (1992, 1998) argued that women managers have a legitimacy problem; they are suspect outsiders. Therefore, they need corroboration by sponsors who are not their boss. Women have to borrow social capital from an established manager who has strong ties to otherwise disconnected groups in order to advance. By contrast, large networks of disconnected contacts assisted the early promotion of the men and their reaching the highest executive levels. Both men and women had the same kinds networks (large, less dense, less hierarchical).

Ibarra (1997) found that women middle managers nominated potentially for executive ranks had more same-gender ties (career and information) and very close ties than nominated men and not-nominated women, consistent with Burt (1992, 1998), though they had more wider-ranging information networks and extra-group network ties. Not-nominated women had fewer very close ties and extragroup ties than the others. The results suggest that women middle managers likely to advance to executive levels rely on close network ties of other women. Ibarra (1997) explained that this was because women need advice from others who face similar obstacles and are experiencing similar role modelling. Hence, women need close networks of other women to advance.

Sponsors may be important. Consistent with Burt's (1992, 1998) results, women executives and savvy insiders reported that help from above was the key factor to their getting ahead (Morrison et al., 1992). The help needed to be from levels above their boss to speak out on their behalf (Mainiero, 1994b; Schor, 1997), unlike men executives for whom the help was from their immediate bosses (Schor, 1997). U.S. and U.K. women executives reported that they needed the support of influential mentors to advance (Ragins et al., 1998; Riley & White, 1994), with one exception (Mainiero, 1994b). Women executives reported having mentors throughout their careers, twice more than men executives did (Schor, 1997). They relied on high level mentors for their advancement, and needed them for many functions, unlike men who seemed automatically sponsored, and reported their mentors as only serving as role models (Schor, 1997). The women relied on career functions from their mentors but also psychosocial support to persist in attempts to advance (Ragins et al., 1998; Schor, 1997).

Summary and Future Research

Overall, the limited evidence suggests that men hold negative views toward women advancing to executive levels. When women are most represented in executive levels, they are in "female"-typed roles, consistent with gender-role stereotypes. Women also fit less into organizational cultures at executive levels than men. Men's similarity to the managerial hierarchy leads to their advancement to upper management and executive ranks, and women's lack of advancement. Homosocial reproduction operates. As well, similarity-attraction processes help explain the few women who do advance. Women also rely on close networks of other similar women and sponsors to help them advance to executive levels, whereas large loosely connected networks help men. Overall, women report more barriers to their advancement from social processes than men do, and need to overcome these by developing social capital more than men do. Women have less of the social capital that leads to advancement to the top than men. The effects of the social processes appear to be from early in women's careers, not just for advancing to high levels.

There are, however, many issues in relation to social processes that require research. What causes the large discrepancy between women executives' views of what stops their advancement and their CEOs' views? These tests need to be based on well-established theoretical frameworks, such as attribution theory and social identity theory. Tests need to contrast explanations based on bias such as attributional explanations and those based on expertise such as human capital. Research is needed into CEO support. What attitudes and behaviors of CEOs increase the proportion of executive women and decrease negative attitudes by male managers to women's advancement? As well, women will not advance whilst men have negative views of their advancement to executive ranks. Future research needs to investigate any circumstances that are linked to positive attitudes by men for women to advance to the top.

Although stereotypes and discrimination are commonly proposed explanations for women not advancing to executive levels, the empirical research is sparse. Direct tests are needed in organizations of whether gender-role stereotypes result in gender differences in advancement, with stronger effects the higher the level. Some evidence suggests that discrimination and dissimilarity are not worse for women's advancement the higher the level, as is expected from the theories (Eagly, 1987; Heilman, 1997), but at lower as well as higher levels (Tharenou, 1998) and earlier as well as later stages (Schneer & Reitman, 1995).

There also need to be rigorous studies conducted on the effects of male-dominated organizational cultures. Do women who adapt their behaviors to fit in more in male-dominated cultures advance more, and similarly to men? Do women and men who do not adapt to male cultures advance less to executive levels than those who adapt? Do women adapt less to advance to the top in less male-dominated than more male-dominated cultures? Given the importance reported by women executives of exclusion from networks, and of development of networks of women for their advancement, there are very few rigorous tests of whether networks affect women's advancement to the top and how. Cross-level longitudinal studies are needed.

The several interpersonal explanations for why women do not break the glass ceiling need to be evaluated for their relative importance. These include stereotypes, male-dominated cultures, similarity, networks, mentors, and politics. The explanations overlap. Theoretical development is needed to integrate these interconnected explanations. Prospective longitudinal studies of transitions through stages are needed to compare and contrast the importance of the major interpersonal factors proposed. In addition, future research needs to rigorously evaluate programs used to increase women's representation at the top that focus on social factors, including diversity training, mentor support, and development of networks.

DO STAGE OR TRANSITIONAL APPROACHES EXPLAIN GENDER DIFFERENCES IN ADVANCING TO THE TOP?

Some approaches propose that advancement to the top arises by progression through distinct but common stages that have particular developmental tasks to be fulfilled to advance from one stage to the next (Forbes & Piercy, 1991). In addition, different factors are needed to advance at the different stages or transitions, by their nature disadvantaging women (Tharenou, 1997a, 1998). Credentials or technical knowledge and skills help gain entry to lower management, but subjective social factors including networks gain advancement to upper manager and executive levels (e.g., Adler & Izraeli, 1994; Ibarra & Smith-Lovin, 1997).

Retrospective studies of men CEOs (Forbes & Piercy, 1991) and women Vice-Presidents (Mainiero, 1994a) support views that advancement to the top arises in a series of stages, that specific and different developmental experiences are needed to advance from one stage to the next, and that early advancement is critical for later advancement. Moreover, the stages and factors were similar for men and women. In particular, challenging assignments are important in early career. U.S. and Canadian women executives reported the critical importance in early career of seeking out difficult or challenging and visible assignments (Catalyst, 1996; Griffith et al., 1997; Mainiero, 1994a; Ragins et al., 1998) and of having managed subordinates successfully (Mainiero, 1994a; Morrison et al., 1992).

Ragins and Sundstrom (1989) proposed a resource development model based on movement through transitions to explain gender differences in advancement to the top. They argued that gender differences arise because men accumulate more resources for power than women at each critical career transition. Power arises from multiple resources at multiple levels. Power arises from the properties of one's formal position (position power, control over organizational assets), from interpersonal relationships (peer networks, mentor relationships, bosses' supervision, supportive subordinate relations), and from individuals' characteristics (e.g., skills, traits). Ragins and Sundstrom (1989) argued that at each career transition women are less likely than men to gain access to organizational and interpersonal resources and less likely to benefit from having them. For example, differential selection places women in jobs with relatively little power compared to the jobs men occupy, and the positions are maintained over time through tracking. Overall, the gender differences in resources compound over time, resulting incrementally in women's lack of advancement to positions of power. Ragins and Sundstrom (1989) also proposed that women could compensate for the lack of one resource with another in order to advance. They proposed as compensatory, as women executives themselves have explained, the development of specialist expertise (Bierema, 1996; Catalyst, 1996; Mainiero, 1994a, 1994b; Morrison et al., 1992; Ragins et al., 1998; Riley & White, 1994) and networks (Davies-Netzley, 1998; Korn/Ferry International, 1993; Mainiero, 1994b; Morrison et al., 1992; Rusaw, 1996). Hence, women may be able to advance to the top through compensatory power from developing particular human capital and social capital.

There is support for a resource development explanation of gender differences in advancement to the top from cross-level and multi-stage longitudinal studies. The studies examine gender differences in the importance of different factors for advancing to upper manager and executive levels. Larwood (1992) found that older and younger men nominated by their companies as successful had similar paths to executive office. Their executive office was predicted by their organizational and departmental levels in their current and last jobs, which were linked back to the level in their first job. Successful women had different paths to executive office and much slower paths than men. Older women's executive office was predicted from their organizational levels in their present jobs, but these were not predicted by the levels of their first jobs. All women started at the bottom of their departments. The executive office of the younger women could not be predicted. Davies-Netzley (1998) also found that their men CEOs were appointed to middle or upper level manager jobs on entry to the workforce, and then advanced rapidly in the same organization. This was unlike the women CEOs who were appointed at low levels and left their organizations to advance. Overall, Larwood's (1992) study supports Ragins and Sundstrom's (1989) model. Men accumulate more resources than women at entry to the workforce by being placed in jobs with substantial power compared to women's.

Studies of stages of advancement suggest that there are differences in the nature of work assignments that help women and men advance to executive levels. Hurley and Sonnenfeld (1998) analysed organizational records of 683 plateaued middle managers (43 were women) drawn to match 683 executives (35 were women) who had advanced from middle managers. All had entered a U.S. multinational services firm using internal labor markets in the same years. The odds of women advancing to executive level were greater if they had a greater proportion of their overall tenure up to middle manager in the corporate department. By contrast, for men, the odds were greater if that tenure was in line management. Hurley and Sonnenfeld (1998) argued, as had Mainiero (1994a), that this is because time in corporate headquarters helps women become personally known to the top decision-makers; that is, they develop social capital.

Schneer and Reitman's (1995, 1997) prospective study tracked 676 men and women MBAs from two northeastern U.S. universities through two career stages. About 25% of the women left the workforce in early career and 20% in mid-career, unlike men. Women had more and longer employment breaks in early career than men, but not in mid-career. Women had breaks because of family reasons, unlike men. Early gaps reduced men's mid-career management levels, and mid-career gaps reduced women's. Accounting for organizational, job, and human capital factors, women reached lower management levels by mid-career than men. Fewer women (9%) than men (25%) reached executive levels; unlike men, women plateaued at upper middle management. The women reported more discrimination with respect to positions and promotion in early career than the men. The discrimination continued into mid-career, double the amount reported by men. In other multi-stage studies, women MBAs report discrimination starting in early career and continuing into mid-career. Women report hostile work environments, problems with bosses, discrimination for promotion, not being hired or losing one's job, and inappropriate work assignments (Hanson Frieze, Olson, & Cain Good, 1990; Murrell, Olson, & Hanson Frieze, 1995; Schneer & Reitman, 1994). Overall, Schneer and Reitman (1995, 1997) showed that gender differences in advancement to executive level were related both to human capital (employment interruptions) and social capital (reduced for women through discrimination and inhospitable social factors) in early and in mid-career. Women accumulated fewer resources than men at early career and then at mid-career because of employment discontinuity and discrimination.

Tharenou's (1998) study was a prospective study of 1835 Australian public servants and private sector employees tracking how individuals advanced from subordinate status to upper management. Traits, human capital, promotion opportunities, and social capital predicted advancement to increasing higher levels in the hierarchy, but social capital disadvantaged women. Theories of similarity-attraction and homosocial reproduction gained support. The greater the proportion of men in their managerial hierarchies two years earlier, the more men subordinates advanced to lower management and the less women lower managers advanced to middle manager. The effects of gender similarity arose taking into account traits, human capital and promotion opportunities. Human capital and promotion opportunities did not predict subordinates entering management but predicted lower managers advancing to middle management (education, training and development; managerial promotions, job labor markets). Human capital (earlier challenging assignments) predicted middle managers advancing into upper management. Hence, human capital was not linked to initial advancement, but later, and social capital did not just help men more than women at higher levels, but also at lower levels. This does not support views that human capital gains entry to lower management and social capital advancement to upper management.

Summary and Future Research

The cross-level or multi-stage studies show that social capital and human capital, but the latter perhaps to a lesser extent, contribute to gender differences in advancing to upper manager and executive levels. Compared to men, women begin in jobs with few prospects to advance to executive levels, interrupt their employment from family reasons, incur discrimination and less favorable social environments, and are preferred less because they are dissimilar to the male hierarchy. The social processes that affect women's advancement start in early career. Overall, women accumulate fewer resources at each transition than men, starting from entry to management. The lesser amount of, and the more disadvantageous, social capital of women compared to men helps explain the gender differences in advancing to the top more than does human capital.

Future research needs to test views that credentials or technical knowledge and skills help gain lower management jobs, but more subjective factors and access to networks become important to advance to higher levels and especially to executive ranks. The limited evidence does not support this pattern (e.g., women are affected by social factors for advancing to lower not just higher levels). Systematic longitudinal studies are needed to assess the relative importance of human capital and social processes for gender differences in advancement from lower to high levels in management. The resources thought to advantage men's advancement relative to women at each transition need to be measured to determine if particular factors incrementally cause gender differences in advancement to the top.

OVERALL SUMMARY AND FUTURE RESEARCH

The empirical evidence most supports the view that lack of social capital results in women not advancing to executive ranks compared to men. The lack of social capital is due to gender-role stereotypes that result in women not fitting the executive role, and to similarity-attraction and homosocial reproduction processes in which men prefer other men. Although human capital helps explain advancement to executive roles, it may explain less of the gender difference in advancement than does social capital. Human capital does not appear to be the major reason women do not advance to the top. In addition, social capital appears to be a barrier to women's advancement to lower and not just higher levels of management, and at early not just later career stages. Human capital also does not appear to help only gain entry to lower management levels, but also to higher levels. Hence, the cross-level approach is not supported, although there is support for a resource development explanation. Gender differences arise in advancement to the top because women accrue fewer resources at critical stages and transitions. Women accrue less human capital and social capital for advancement than men, more for social capital than human capital.

In general, we know less about why women do not advance to the top compared to men than we should from the number of studies. This is because the studies often do not test relevant theories. Hence, they are less explanatory than they could be. Many of the studies do not use rigorous designs that allow firm conclusions to be drawn, other than about perceptions. Research designs that trace gender differences in advancement over time, allow contrasting explanations to be tested (e.g., social capital and human capital), and do so from objective data or multi-source data are needed. Ragins and Sundstrom's (1989) resource-development model provides an appropriate overall model for future research.

Although the evidence clearly suggests that social processes explain gender differences in advancement to the top more than human capital, rigorous studies are rare. Human capital may have stronger effects than social capital in systematic tests. The studies most supportive of the influences of social factors do not include human capital.

Future research also needs to examine if human capital leads to social capital in a way that affects gender differences in advancement to the top. U.S. women executives reported that advanced education and a track record of accomplishment helped build the credibility they needed to advance (Catalyst, 1996; Mainiero, 1994b; Morrison et al., 1992). Through carrying out difficult or highly visible assignments in early career, women executives reported not only developing expertise, but also coming to the notice of top management (Catalyst, 1996; Mainiero, 1994a). Does advanced education result in credibility for women, or does participating in difficult highly visible projects bring women to the notice of top management in a way different to men? Do these processes then allow women not to be disadvantaged compared to men for advancement to high management levels? By contrast, does social capital create human capital in a way that affects gender differences in advancement to the top? Do organizational networks, or gender-role stereotypes, result in men more than women being offered more breakthrough assignments or line management experience that lead to the top?. Does social capital provide greater returns to men's human capital than women's so that men are advantaged and women disadvantaged to advance to the top?

In conclusion, we are making little progress in increasing the number of women in executive ranks. Men advance to the top more than women through homosocial reproduction and similarity leading to preference for men. Women can also advance through similarity, but they are rarely similar. Women advance through encouragement from close networks of other women. Women gain fewer resources than men at each transition to increasingly higher levels in the managerial hierarchy, right from the start, incrementally reducing their advancement to the top. Although human capital and managerial traits help explain advancement to the top, gender differences in human capital may not explain why men advance more than women. Also, managerial traits similarly help men and women advance. Women also use compensatory mechanisms to advance to the top at least by being more effective performers than men. Women have definite ideas about why they have difficulties reaching executive level, but these conflict with the reasons men CEOs give. The differences between the sexes in attitudes are a major challenge to be addressed if women are to advance to the top as comparable men do.

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