Propensity to Negotiate and Career Advancement: Evidence from an Investment Bank that Women Are on a "Slow Elevator"

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Women are underrepresented at senior levels in most companies. This article examines whether gender differences in the propensity to negotiate contribute to this pattern. Based on a behavioral experiment run in a major investment bank in the United States, I found that fewer women than men are willing to negotiate, but employees who have a propensity to negotiate are promoted on average seventeen months more quickly than those who do not. Women advance more slowly than men, which accounts for the underrepresentation of women in senior positions. I conclude that gender differences in the propensity to negotiate partially explains why women are on a "slow elevator" to the top.

Key words: negotiation, gender, career advancement.

Introduction

Women currently represent 50 percent of all managerial positions but are still remarkably scarce in top executive positions. They hold only 16 percent of corporate officer positions, 15 percent of board seats, and 7 percent of the top earning positions in Fortune 500 Companies (Catalyst 2007). Explanations for gender differences in career advancement fall into

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two general categories: gender differences in preferences and gender differences in constraints. This article explores gender differences in the propensity to negotiate as a type of behavioral constraint.

The preference hypothesis, recently underscored in articles in the popular press (Belkin 2003), posits that women's lower appetite for risk and competition (Niederle and Vesterlund 2007 and 2008; Eckel and Grossman 2008), and their greater preference for work-life balance and intrinsic versus extrinsic rewards (Hakim 2002; Chevalier 2007), may explain why women tend to progress more slowly in or leave competitive careers (Croson and Gneezy 2004).

The constraint hypothesis posits that gender differences in access to networks (Ibarra 1997) or family obligations (Lazear and Rosen 1990; Bowles and McGinn 2005) may explain why women rarely reach the senior rungs of the ladder. They may also face organizational constraints, such as cultures, decision-making processes, or discrimination that differentially affect men and women (Acker 1990; Banaji and Hardin 1996; Goldin and Rouse 2000; Sturm 2001; Bohnet and Greig 2007). Finally, women may be constrained by their own emotions and behavior; for example, they may perceive themselves as performing less effectively than their peers (Barron 2003) or feel less entitled to extrinsic rewards (Major, McFarlin, and Gagnon 1984).

Negotiation, the focus of this paper, is another form of a behavioral constraint affecting women — recent research has found that women have a lower propensity to negotiate than men (Babcock and Laschever 2003; Small et al. 2005). This gender difference has numerous roots, including women's greater anxiety about negotiating and a "backlash" toward women who do decide to negotiate (e.g., Rudman 1998; Rudman and Fairchild 2004; Bowles, Babcock, and Lai 2007).

This reluctance does not appear, however, to stem from an inherent distaste for negotiation: women are no less likely than men to prefer negotiation as a decision-making procedure in the workplace (Bohnet and Greig 2007). When they do negotiate, women both request and obtain lower wages than men (Gerhart and Rynes 1991; Säve-Söderbergh 2003). Compared with men, women also receive fewer outside offers on the job, and their current employers are less likely to fully match those outside offers (e.g., Blackaby, Booth, and Frank 2005). These gender differences in negotiation partially explain the gender gap in starting salaries (Gerhart and Rynes 1991; Bowles, Babcock, and McGinn 2005).

Little is known about the role of negotiation in career advancement. The personnel economics literature has modeled only theoretically how "influence activities" could play a role in personnel decisions (for a review, see Prendergast 1999), and the social psychology literature has shown empirical correlations between some influence tactics and promotion but has failed to control for productivity-related variables (Higgins, Judge, and Ferris 2003).

Using a novel behavioral measure of propensity to negotiate, I have assessed whether propensity to negotiate is associated with career advancement. Based on human resource data, I observed employees' promotion histories. In the first step of the analysis, I explored whether women have a lower propensity to negotiate than men and whether those with a higher propensity to negotiate are promoted more quickly. In the second step, I examined whether the rate of advancement accounts for the underrepresentation of women in senior positions.

I conducted this research at a major investment bank in the United States. Investment banking is an industry that typically selects for people who are skilled at negotiating with clients and in which women are underrepresented, especially at the senior level. In the bank's front-office, client-facing divisions that I sampled for this research, 32 percent of the most junior employees were women, whereas only 11 percent of senior managers were women.

I found that, even among investment bankers, women have a lower propensity to negotiate than do men and that employees with a higher propensity to negotiate advance more quickly. Women in this investment bank are on a "slow elevator" to the top — they advance more slowly than men. I found that if they were to advance at the same rate as their male peers, women would no longer be underrepresented in senior levels. Linking these findings — a gender difference in the propensity to negotiate, an association between propensity to negotiate and rate of advancement, and a direct relationship between rate of advancement and seniority — I conclude that women's lower propensity to negotiate partially accounts for the dearth of women in senior corporate positions.

Research Design

Instruments

My primary research instrument was a fifteen-minute-long survey conducted with a sample of employees in front-office, line management divisions (e.g., equities and investment banking, but not human resources). The sample was stratified according to gender and title: I randomly selected fifty men and fifty women from each of six different levels of the organization to invite via e-mail to participate in an online survey. The e-mail explained that I was an outside researcher and that participation was completely voluntary. For each invited participant, I also obtained human resources records of the participant's title upon entry, promotion history, and division. In order to better understand the context, I conducted thirty-minute follow-up interviews with those survey respondents who volunteered to be interviewed.

In this article, I focus on negotiations on behalf of oneself rather than on behalf of a client or the firm. Thus, I consider propensity to negotiate as an employee's tendency to initiate any interaction with the intention of improving the rewards for the duties that he or she performs. I measured propensity to negotiate using a novel *behavioral* method: at the end of the survey, respondents were told, "In appreciation for your participation, you will receive a free Starbucks card. However, the value of this Starbucks card has not yet been determined. How much do you request your Starbucks card to be for?" (A Starbucks card was offered because there are many Starbucks cafés near this investment bank, and key informants believed that respondents would find it unsavory to make cash requests.) The question was open-ended and provided no format restrictions or anchors that could influence the respondents' requests. It offered participants an identical opportunity to negotiate for a monetary reward. Therefore, it may also have been less prone to biased responses due to gender differences in the definition of what a negotiation is, a concern that has been raised about survey questions on negotiation (Small et al. 2005).

I measured propensity to negotiate by assessing whether the respondent made a request (coded as "made request"), where responses such as "Not necessary," "You decide," "Prefer Dunkin Donuts," and "Please donate to charity," and their near equivalents, were coded as no response. In addition, participants who responded to the questions prior to and after the Starbucks card request but left the Starbucks card request blank were coded as no response. Value-claiming behavior (coded as "request amount") was measured for those who made a request simply in the form of an amount. Numeric requests of zero were coded as a 1 for "made request" and as a 0 for "request amount."

Several days after the survey closed, participants received their Starbucks card via internal mail. Those who requested more than \$15 were told that their request had exceeded the maximum allowable amount and received a card for \$15. Respondents who requested \$15 or less received the amount they requested except that the few who either requested less than \$5 or did not make a request received a card for \$5. Average payout was \$10.87 for those who made a Starbucks card request versus \$5 for those who did not.

I complemented my behavioral measure of propensity to negotiate (made request) with survey measures. I adapted existing "propensity to initiate negotiations" measures (Babcock et al. 2005) for this sample to measure the time since the employee's last negotiation and expected time until her or his next negotiation at work. In addition, through the survey, I also collected information about a host of demographic, preference- and constraint-related variables that are likely to be correlated with the independent and dependent variables of interest. These variables were:

- 1. Demographics: race, nationality, age.
- 2. *Preference for work*: seven-point scale of attitude toward current time spent working (hours) from working "far too little" (1) to "far too much" (7).

- 3. Family constraints: number of children (upon arrival and upon promotion).
- 4. Workplace constraints: number of mentors and a set of productivityrelated variables that included education (highest level obtained), tenure (years), average hours per week worked (hours), and a performance index constructed as the average of the following two seven-point low/ high-scale items: "According to your best guess, how do you think you compare to peers in your exact same position in terms of your performance last year?" (item one) and "According to your best guess, how did your performance last year compare to your manager's expectations of you?" (item two).
- 5. Self-confidence and ambition: As a robustness check, I controlled selfconfidence and ambition as two personal characteristics relevant for career advancement that may be correlated with propensity to negotiate. I surveyed for self-confidence using the following seven-point low/ high-scale question, "According to your best guess how do you think you compare to peers in your exact same position in terms of your likelihood of being promoted to the next level of seniority?" I measured ambition by creating a dummy variable for whether the respondent indicated "Better compensation" or "Greater advancement opportunities" in response to the following question: "If you were to leave [employer name], what would be your reasons for leaving? (Check all that apply.)" (Other possible answers to this question were: "organizational values more compatible with my own," "more opportunity to develop new skills," "smaller organization," "better life balance," "people I prefer working with," "increased intellectual stimulation," "I would only leave if asked to or not promoted," and "other.")
- 6. Division controls: dummy variable for the division the employee works in (e.g., fixed income, investment banking).

Analyses

I first tested for a gender difference in the propensity to negotiate. Given the earlier evidence that women have a lower propensity to negotiate than men (e.g., Babcock and Laschever 2003), I expected to find the same result among investment bankers.

I then turned to the relationship between negotiation and rate of advancement. I measured rate of advancement as months of employment before receiving a promotion. Because I observed each employee's promotion history, I have multiple data points for respondents who had been promoted more than once in the organization. I analyzed only the employees who have ever been promoted within this organization, resulting in a sample of 191 promotions among 136 employees. (In my regression, I adjusted standard errors for clustering at the individual level.) I expected

that people with a higher propensity to negotiate would have advanced more quickly.

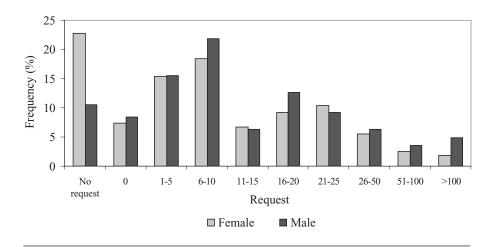
Theoretical analyses suggest that influence activities, such as negotiation, could play more of a role when performance evaluations are more subjective (MacLeod 2003). Subjective performance evaluations make it difficult for managers to verify whether their employees deserve the rewards they negotiate for, causing the very legitimacy of an employee's claim to be, in effect, negotiable. Thus, I expected propensity to negotiate to have a greater effect on advancement when performance reviews are more subjective. To test this hypothesis, I examined the relationship between propensity to negotiate and advancement in divisions, in which performance reviews are more or less objective. Specifically, I split the sample into trading divisions, where performance (e.g., profit) is perfectly observable, objective, and aligned with the performance of the firm, and nontrading divisions, where performance evaluations are more subjective.

Finally, I explored whether the underrepresentation of women at senior levels is due to the fact that women are on a "slow elevator" to the top. I examined whether the disproportionate representation of men at senior levels can be accounted for by gender differences in rate of advancement. To simulate the actual distribution of men and women at each job title in the organization, in this analysis, I weighted each observation by the number of people each respondent within his or her sample frame cell represents. For example, the ratio of employees in the firm to employees sampled was 14.71 for the most junior women, 54.42 for junior men, 2.42 for the most senior women, and 25.00 for senior men. Because I recruited equal numbers of men and women from each title to participate in the study, and thus oversampled senior versus junior employees and women versus men, without weighting, my sample would not accurately reflect the true distribution of men and women in each title. After applying these weights, I regressed the current title — a number from 1 (most junior) to 5 (most senior) — on the rate of advancement to simulate the distribution of men and women at each title within the organization if men and women had advanced at the same rate.

Results

The total sample size was 319 employees, 305 of whom completed the whole survey. Response rates ranged from a low of 35 percent among Level One males to a high of 60 percent among Level Three males, with an average total response rate of 49 percent. The median age of respondents was thirty-six, and the median number of years working at this investment bank was four. (A complete set of descriptive statistics are available upon request.)

Figure One Starbucks Card Request Frequency Distribution



Propensity to Negotiate

Eighty-three percent of respondents made a Starbucks card request, and their requests ranged in value from \$0 to "unlimited." The most common (modal) response was \$10. The median number of days since the respondent's most recent negotiation (seven) and until his or her next expected negotiation (seven), was lower in this sample than in the results obtained by Babcock et al. (2005), possibly reflecting the fact that investment bankers negotiate frequently with clients as part of their job. Those respondents who made a Starbucks card request reported that fewer days had elapsed since their last negotiation at work than those who did not make the card request (median of seven days versus fourteen days; difference is statistically significant at the 11 percent level). (I used nonparametric Mann-Whitney *U*-tests to test differences in means.)

My results indicate that women had a lower propensity to negotiate than men (Figure One). Significantly fewer women (76 percent) than men (90 percent) made a Starbucks card request (statistically significant at the 1 percent level), and this difference remains significant when controlling for race, nationality, and age. Conditional on specifying a numeric request, women (\$19.34) request marginally less than men (\$21.47), but this difference is not statistically significant.

As Babcock et al. (2005) found, women on average also reported that significantly more days had elapsed since their last negotiation and until their next anticipated negotiation (statistically significant at the 5 percent level) than did the men, even when controlling for other demographic

characteristics. In summary, women exhibited a lower propensity to negotiate for a Starbucks card, and they reported a longer time than men since their last negotiation and until their next negotiation.

Career Advancement

Ordinary least squares regression analysis showed that the women in this study took, on average, more than eight months longer to be promoted than men. (The detailed analysis is available upon request.) In addition, employees who had more experience prior to arriving and had more firm-specific experience advanced more quickly. Not surprisingly, employees who worked long hours, but did not believe they were working too many hours, and who have more education advanced more quickly.

People who made a Starbucks card request were promoted more than seventeen months sooner at each promotion. I found similar results for the survey measure of propensity to negotiate: people who reported their last negotiation to have been more recent were promoted significantly more quickly. The results did not change when I controlled for the measures for self-confidence and ambition. These findings provide strong evidence that propensity to negotiate is associated with quicker advancement.

To examine whether the effect of propensity to negotiate on career advancement is more pronounced when performance evaluations are subjective, I compared the relationship between propensity to negotiate and promotion in trading versus nontrading divisions. A regression analysis reveals that propensity to negotiate was much more strongly associated with advancement in nontrading divisions, where performance is less readily quantifiable, but was not associated with advancement in trading divisions. This was true despite the fact that trading positions appear to select for confident, ambitious people with a high propensity to negotiate: employees in trading divisions reported having more recently negotiated at work (statistically significant at the 1 percent level) and exhibited statistically significantly greater self-confidence and ambition than nontraders. This suggests that employees in trading divisions might negotiate more even though it has less of an effect on their advancement.

To summarize the results thus far, among client-facing employees at this investment bank, I found that women had a lower propensity to negotiate than men did. Propensity to negotiate was correlated with receiving promotions more quickly: employees with a propensity to negotiate were promoted, on average, more than seventeen months sooner than those who were less likely to negotiate. This correlation was stronger among employees in nontrading divisions where performance evaluations are more subjective.

Are Women on a Slow Elevator?

If propensity to negotiate is associated with advancing more quickly, do gender differences in rate of advancement help explain the

underrepresentation of women in senior positions? If this is true, I can infer an indirect link between gender differences in the propensity to negotiate and the glass ceiling.

My regression analysis suggests the following results:

- 1. Women, on average, ranked lower in the organization than men, even after I controlled for the rank at which employees entered the organization.
- 2. The gender gap in the rate of advancement accounts for most of the gender gap in seniority. In fact, if men and women were to advance at the same rate, women would no longer be underrepresented in senior ranks of the organization.

Discussion

The results of this study indicate that female employees of a major investment bank have a lower propensity to negotiate than their male colleagues. The observed gender difference in the propensity to negotiate has substantial implications for career advancement because propensity to negotiate is associated with being promoted more quickly. But it is impossible to fully rule out the potential for reverse causality. Joe Magee, Adam Galinsky, and Deborah Gruenfeld (2007) have shown that people primed for power are more likely to initiate negotiations, suggesting that more senior employees may be more likely to negotiate. On the other hand, given the modest stakes of the Starbucks card, income effects may have made senior employees less likely to make a Starbucks card request. In this sample, senior employees were significantly less likely than junior employees to make a Starbucks card request (76 percent versus 91 percent), but this should have biased the association between propensity to negotiate and advancement downward.

The gender gap in the rate of advancement that I found explains most of the gender gap in seniority. These findings apply to a set of people, namely, investment bankers, who are likely to self-select and be selected for skills at negotiating with clients. My results resonate with other findings that women have a lower probability of being promoted (e.g., Blau and DeVaro 2007). Several studies have observed that women are less likely to be promoted but that there are no gender differences in the wage increases attached to promotions (Olson and Becker 1983; Blau and DeVaro 2007), suggesting that the gender wage gap may be driven by the fact that women are on a "slow elevator" to the top. As shown here, gender differences in the propensity to negotiate may explain why women are on such a slow elevator.

This connection between gender difference in negotiation and gender difference in career advancement uncovers a form of "second-generation bias," whereby the exclusion of certain groups stems not from deliberate subordination ("first-generation bias") but rather unintentional patterns of interaction that cause personnel decisions to be "formally fair but functionally biased" (Sturm 2001). The more influence that negotiation is allowed to have on advancement, the greater the advantage for men because they are more likely to negotiate than women. The fact that propensity to negotiate had no effect on advancement in trading divisions, where performance is more readily quantified, suggests that finding ways to make performance evaluations more objective could reduce this second-generation bias.

Implications

In addition to considerations of ethics and fairness, an important question for the firm is whether the observed correlation between negotiation and advancement is efficient. I use my findings as a basis to argue that it is not. In an efficient labor market, firms pay and promote according to the marginal product of each employee, and if an employee is underpaid or underpromoted, he or she should be able to find another firm willing to offer higher rewards. Because there are costs to monitoring, however, it could be more efficient for the firm to underpay and underpromote and rely on negotiation for correction: employees would negotiate for higher pay and advancement when they have, or believe they could, obtain a better outside option. (Anecdotally, people working in the financial sector frequently argue that this is their employer's approach to compensation and promotions.) But such a system would be more efficient and would improve the meritocracy (Schuck and Zeckhauser 2006) only if the following conditions are met: outside options and propensity to negotiate are correlated with performance, negotiation has no influence when the employee has not actually been underpaid or underpromoted, and negotiation is equally costly or beneficial to all types of employees.

The findings of this study are inconsistent with those conditions. In this sample and in other research, neither outside options nor propensity to negotiate was actually correlated with performance (Babcock and Laschever 2003; Blackaby, Booth, and Frank 2005). Both measures were, however, correlated with gender, with women receiving significantly fewer outside options and exhibiting a significantly lower propensity to negotiate than men. Because women's performance is not lower than men's on average, negotiation is likely to bias personnel decisions and lead to an inefficient allocation of leadership positions rather than serve as a helpful mechanism of self-correction.

Second, the results presented here indicate that propensity to negotiate is associated with advancing more quickly, even when controlling for productivity-related variables. Behavioral decision research offers a wealth of reasons why this might be (Bazerman 2006): managers may anchor their judgments on expectations conveyed by their employees (Galinsky and Mussweiler 2001), more readily recall the accomplishments cited by those who negotiated most recently, or believe that accomplishments cited by

employees are representative of their overall performance (Tversky and Kahneman 1974). Furthermore, presented with the claim by an employee that he or she deserves a promotion, the manager may tend to look only for confirming evidence rather than cues that would delegitimize such a claim (Wason 1960).

Finally, other studies have documented that the social costs associated with negotiating are higher for women than for men (Rudman 1998; Rudman and Fairchild 2004; Bowles, Babcock, and Lai 2007), and that in their decision making, women respond more to social costs than men do (Greig 2007). Consequently, the career benefits of negotiating may not always be as high for women as they are for men. Although the association between propensity to negotiate and rate of advancement was not weaker for women than men in this sample, other research has documented that current employers are less likely to fully match outside offers received by women compared with those received by men (Blackaby, Booth, and Frank 2005).

Rather than viewing negotiation as a means of correcting inefficient personnel decisions, it could be argued that propensity to negotiate is a productive skill. If this is true, we would expect performance reviews to reflect employees' propensity to negotiate, in which case negotiation need not influence promotion decisions independently of performance. My results suggest a direct relationship between negotiation and promotion even when controlling for performance. If propensity to negotiate is a productive skill, then in cases where performance data do not adequately capture the employee's propensity to negotiate, employees may look for other signals of this skill. For example, if the role of a junior employee does not allow for frequent negotiation on the job, negotiating with his manager for a promotion could signal a productive skill that would become important in a more senior role.

Propensity to negotiate is less likely to be an accurate indicator of performance, however, particularly for women. Recent research suggests that the correlation between negotiating on behalf of oneself (e.g., for a promotion) and negotiating on behalf of others (e.g., the firm) is less strong for women than it is for men (Bowles, Babcock, and McGinn 2005). A number of women in this investment bank emphasized that they had no problem negotiating with clients but felt uncomfortable negotiating on their own behalf. Thus, negotiating for a promotion is likely to be a less accurate signal of propensity to negotiate on the job for women than for men. In other words, even if propensity to negotiate is a productive skill, promoting employees based on the results of negotiations for those promotions could be inefficient for the firm.

Are promotion decisions actually inefficient? Evidence indicates that the answer could be yes. Researchers have argued that women are subjected to more stringent promotion criteria, a claim that has received some empirical support (Olson and Becker 1983; Jones and Makepeace 1996). Women in leadership positions tend to be more highly qualified and display leadership styles deemed to be more effective than men in similar leadership positions (for a review, see Eagly 2007). Two studies have also found representation of women in executive positions to be positively correlated with firm performance (Catalyst 2004; Krishnan and Park 2005). If firms promote people on the basis of their measurable, marginal productivity, then we should not observe systematic differences in quality among similarly ranked employees. Evidence of a gender pattern in marginal productivity hints at an inefficiency — that women are being underpromoted.

It is no surprise that as economies become increasingly service oriented and more emphasis is placed on human capital, we observe the adoption of more extensive performance review systems, such as 360degree evaluations from one's junior, peer, and senior colleagues. (In 360degree evaluations, managers are evaluated by their staff, as well as the inverse.) Firms understand that if people are their most important asset, then evaluating them accurately and promoting high performers are two of their most important strategic challenges.

The results of this study suggest that organizations have room to improve. First, they could make performance review systems more objective: when performance metrics are more objective, propensity to negotiate is less likely to be associated with quick advancement. Second, organizations could try to lessen the effect of negotiation on one's own behalf on promotion by making managers more aware that employees differ in their propensity to negotiate in ways that are not correlated with productivity, and that male employees are more likely than female employees to initiate such negotiations. Finally, organizations and educational institutions could arm women with better negotiating skills and with the mindset to recognize opportunities to negotiate in order to ensure that their case is being made and their needs are being met. This three-pronged strategy could prevent negotiation from being a barrier to advancement for women.

REFERENCES

Acker, J. 1990. Hierarchies, jobs, bodies: A theory of gendered organizations. Gender and Society 4: 139-158.

Babcock, L., M. Gelfand, D. Small, and H. Stayn. 2005. Gender differences in the propensity to initiate negotiations. Working Paper, Carnegie Mellon University.

Babcock, L. and S. Laschever. 2003. Women don't ask: Negotiation and the gender divide. Princeton, NJ: Princeton University Press.

Banaji, M. R. and C. D. Hardin. 1996. Automatic stereotyping. Psychological Science 7: 136-141.

Barron, L. 2003. Ask and you shall receive? Gender differences in negotiators' beliefs about requests for a higher salary. Human Relations 56: 635-662.

Bazerman, M. H. 2006. Judgment in managerial decision making. Hoboken, NJ: Wiley.

Belkin, L. 2003. The opt-out revolution. New York Times October 26: 42, 44-46, 85-86.

Blackaby, D., A. L. Booth, and J. Frank. 2005. Outside offers and the gender pay gap: Empirical evidence from the UK academic labor market. Economic Journal 115: F81-F107.

- Blau, F. D. and J. Devaro. 2007. New evidence on gender differences in promotion rates: An empirical analysis of a sample of new hires. *Industrial Relations* 46: 511–550.
- Bohnet, I. and F. Greig. 2007. Gender matters in workplace decisions. Negotiation 10(4): 4-6.
- Bowles, H. R., L. Babcock, and L. Lai. 2007. Social incentives for sex differences in the propensity to initiate negotiation: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes* 103: 84–103.
- Bowles, H. R., L. Babcock, and K. McGinn. 2005. Constraints and triggers: Situational mechanics of gender in negotiation. *Journal of Personality and Social Psychology* 89: 951–965.
- Bowles, H. R. and K. McGinn. 2005. Claiming authority: Negotiating challenges for women leaders. In *The psychology of leadership*, edited by D. M. Messick, R. M. Kramer, and M. Roderick. Mahwah, NJ: Lawrence Erlbaum Associates.
- Catalyst. 2004. The bottom line: Connecting corporate performance and gender diversity. New York: Catalyst.
- — . 2007. 2006 Census of women corporate officers, top earners, and directors of the Fortune 500. New York: Catalyst.
- Chevalier, A. 2007. Education, occupation, and career expectations: Determinants of the gender pay gap for UK graduates. *Oxford Bulletin of Economics and Statistics* 69(6): 819–842.
- Croson, R. and U. Gneezy. 2004. Gender differences in preferences. Working Paper, Wharton School of Business.
- Eagly, A. H. 2007. Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly* 31: 1-12.
- Eckel, C. C. and P. J. Grossman. 2008. Sex and risk: Experimental evidence. In *Handbook of experimental economics results*, edited by C. R. Plott and V. L. Smith. Amsterdam: Elsevier Science.
- Galinsky, A. D. and T. Mussweiler. 2001. First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology* 81: 657–669.
- Gerhart, B. and S. Rynes. 1991. Determinants and consequences of salary negotiations by male and female MBA graduates. *Journal of Applied Psychology* 76: 256–262.
- Goldin, C. and C. Rouse. 2000. Orchestrating impartiality: The impact of "blind" auditions on female musicians. *American Economic Review* 90: 715–741.
- Greig, F. 2007. Barriers to advancement: Perspectives from behavioral economics, negotiation, and gender analysis. Ph.D. Dissertation, Harvard University.
- Hakim, C. 2002. Lifestyle preferences as determinants of women's differentiated labor market careers. Work and Occupations 29: 428-459.
- Higgins, C. A., T. A. Judge, and G. R. Ferris. 2003. Influence tactics and work outcomes: A metaanalysis. *Journal of Organizational Behavior* 24: 89-106.
- Ibarra, H. 1997. Paving an alternative route: Gender differences in managerial networks. Social Psychology Quarterly 60: 91-102.
- Jones, D. R. and G. H. Makepeace. 1996. Equal worth, equal opportunities: Pay and promotion in an internal labour market. *Economic Journal* 106: 401-409.
- Krishnan, H. A. and D. Park. 2005. A few good women On top management teams. Journal of Business Research 58: 1712-1720.
- Lazear, E. P. and S. Rosen. 1990. Male-female wage differentials in job ladders. *Journal of Labor Economics* 8: S106-S123.
- MacLeod, W. B. 2003. Optimal contracting with subjective evaluation. American Economic Review 93: 216-240.
- Magee, J. C., A. D. Galinsky, and D. H. Gruenfeld. 2007. Power, propensity to negotiate, and moving first in competitive interactions. *Personality and Social Psychology Bulletin* 33: 200–212.
- Major, B., D. McFarlin, and D. Gagnon. 1984. Overworked and underpaid: On the nature of gender differences in personal entitlement. *Journal of Personality and Social Psychology* 47: 1399-1412.
- Niederle, M. and L. Vesterlund. 2007. Do women shy away from competition? Do men compete too much? *Quarterly Journal of Economics* 122: 1067–1101.
- — and — . 2008. Gender differences in competition. *Negotiation Journal* 24(4): 447–463.
- Olson, C. A. and B. E. Becker. 1983. Sex-discrimination in the promotion process. *Industrial and Labor Relations Review* 36: 624-641.
- Prendergast, C. 1999. The provision of incentives in firms. *Journal of Economic Literature* 37: 7-63.

- Rudman, L. A. 1998. Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. Journal of Personality and Social Psychology 74:
- Rudman, L. A. and K. Fairchild. 2004. Reactions to counterstereotypic behavior: The role of backlash in cultural stereotype maintenance. Journal of Personality and Social Psychology 87: 157-176.
- Säve-Söderbergh, J. 2003. Are women asking for low wages? An empirical analysis of individual wage bargaining and ability signaling. Mimeograph, Swedish Institute for Social Research, Stockholm University.
- Schuck, P. H. and R. Zeckhauser. 2006. Targeting in social programs: Avoiding bad bets, removing bad apples. Washington, DC: Brookings Institution Press.
- Small, D., M. Gelfand, L. Babcock, and H. Gettman. 2005. Who goes to the bargaining table? Understanding gender variation in the initiation of negotiations. Working Paper, University of Pennsylvania.
- Sturm, S. 2001. Second generation employment discrimination: A structural approach. Columbia Law Review 101: 458-568.
- Tversky, A. and D. Kahneman. 1974. Judgment under uncertainty Heuristics and biases. Science 185: 1124-1131.
- Wason, P. C. 1960. On the failure to eliminate hypotheses in a conceptual task. Quarterly Journal of Experimental Psychology 12(3): 129-140.