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Friends in High Places:
The Effects of Social
Networks on
Discrimination in Salary
Negotiations

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This article tests hypotheses about the effects of social networks on inequitable salary negotiation outcomes using a U.S. high-technology company's salary negotiation data for 1985–1995. Analyzing results of 3,062 actual salary negotiations, we found that members of racial minority groups negotiated significantly lower salary increases than majority members, but this effect was dramatically reduced when we controlled for social ties to the organization. Having a social tie to the organization significantly increased salary negotiation outcomes, and minorities were less likely than majority members to have such a social tie. ●

Discriminatory wage differences between White and minority employees have been documented in many organizations (England, 1992). Although there are many potential sources of within-job wage discrimination, the exact processes through which discriminatory wage differentials occur are not well understood. According to Petersen, Saporta, and Seidel (2000), wage gaps between demographic groups may have several causes. First, demographic majorities and minorities are allocated to occupations and organizations that differ in compensation. This allocative discrimination occurs through the hiring, promotion, and termination processes. Second, demographic minorities may have equal access to positions, but different preferences for work settings, resulting in valuative discrimination. Third, demographic minorities may receive lower wages for a given job within a given organization. Distinct from allocative and valuative discrimination, this within-job wage discrimination is defined as unequal pay for the same work performed within the same job. Within-job wage discrimination is the focus of this paper.

There are several potential sources of within-job wage discrimination. One obvious cause is overt racism (Allport, 1954; Dovidio and Gaertner, 1986). Racist individuals were found to vote against a Black mayoral candidate (McConahay and Hough, 1976; Kinder and Sears, 1981), oppose busing for school desegregation (McConahay, 1982), and prefer to hire Whites over Blacks (McConahay, 1983). Individuals who are biased against a minority group may rate the performance of a member of the group lower than his or her actual performance, an act of direct interpersonal discrimination (Kraiger and Ford, 1985; Ilgen and Youtz, 1986; Greenhaus, Parasuraman, and Wormley, 1990). Further, actual performance may differ among demographic groups. One mechanism that may cause lower performance by stereotyped minorities is stereotype vulnerability (Steele, 1997). Steele (1997) found that African American students who started school with standardized test scores comparable to their White counterparts quickly realized a gap in performance. He suggested that the performance difference stems from stereotype-based obstacles to achievement. As minorities face the possibility of conforming to a stereotype, or of being judged in terms of it, it becomes a threat to their expectancy. The lowered expectancy leads to a lower level of performance.

Putting aside actual performance differences, wage inequities may begin before job candidates even accept a job. Collinson, Knights, and Collinson (1990) found extensive sex

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discrimination in the hiring processes of 45 large private organizations in England in the early 1980s, despite organizations' attempts to eliminate it. Dependence on informal, word-of-mouth recruitment channels pervaded their recruitment practices and was an important conduit through which sex discrimination operated. Informal means of recruitment allowed the employer to gather more information on the candidate than might be available through other means and to assess his or her acceptability. Such assessments were made very early in the recruitment process (sometimes even before the employer met the candidate), and the recruitment process then focused on selectively confirming the original preconception. These authors concluded that the use of informal channels such as employee referrals of friends or relatives facilitated the reproduction of job segregation. The logic underlying Collinson, Knights, and Collinson's findings may also contribute to understanding racial discrimination in the hiring process. More specifically, differing networks can lead to systematic salary differences among racial groups through their effect on salary negotiation outcomes. If social networks impart some advantage in salary negotiations, and if racial groups have systematically different social networks, negotiation outcomes should differ for the various groups.

DISCRIMINATION IN NEGOTIATION

Negotiation researchers study various factors that affect how interdependent individuals with different preferences allocate resources in a joint decision-making process (Walton and McKersie, 1965; Raiffa, 1982; Lewicki and Litterer, 1985). Such factors include cognitive biases (Neale and Bazerman, 1991), power differentials (Pinkley, Neale, and Bennett, 1994), and motivational orientation (Pruitt and Rubin, 1986; for an overview of negotiations research see Thompson, 1990; Neale and Northcraft, 1991). This research typically takes a social psychological or decision analytic perspective, with the behaviors and decisions of the negotiating parties as the principal unit of analysis (Rubin and Brown, 1975). Consistent with this perspective, most of this research has been conducted in laboratory settings. Such experimental studies are designed to hold constant all features of the social context except the variables being studied in order to isolate the causal effects of these variables (Cook and Campbell, 1979). While a wealth of knowledge has been generated from this approach, some features of the social context within which negotiations are embedded are difficult to study experimentally (Greenhalgh, 1987; Kramer and Messick, 1995). In particular, neither the effects of negotiators' social networks nor discrimination against demographic minorities have received adequate attention from negotiation researchers, with the exception of Ayres' (1991, 1995) work on discrimination.

In a set of studies examining price negotiation in new car purchasing, Ayres (1991, 1995) found differences among buyers from different racial groups in the initial offer they received from the salesperson and in the final negotiated price. Buyers who were Black and/or female were asked to pay significantly higher prices than White male buyers, both at the beginning and at the end of the negotiation. During the negotiation process, sellers made slower and smaller conces-

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sions to minority buyers. One explanation for this discrimination was that sellers believed White males had lower reservation prices (i.e., the maximum amount a buyer was willing to pay) than Blacks and/or females. This belief may have been based on sellers' assumptions that White males had lower search costs and more information about the dealer's cost (Ayres, 1995).

Similar beliefs could occur in the context of salary negotiations. Company representatives involved in the negotiations may negatively stereotype minorities as having less information about key elements in the negotiation (e.g., the extent to which salary is negotiable or the company's reservation price). Such an assumption is conceptually distinct from whether minorities actually have less information about the company's position in the negotiation. Alternatively, animus stemming from racial biases might affect company representatives' conduct in the negotiations (Ayres, 1995). If the negotiator holds a racial bias against the applicant's demographic group, he or she may be less favorably inclined to agree to increases. On a more anthropological note, Barley (1991) argued that cultural membership determines acceptable negotiation norms leading to the possibility of ineffective cross-cultural negotiation. Based on all of these factors, the company may grant fewer and smaller concessions to minorities in salary negotiations:

Hypothesis 1 (H1): Members of racial minority groups will negotiate smaller increases to their initial salary offers than their White counterparts.

While Ayres' (1995) primary focus was on the behaviors and beliefs of automobile sellers, he noted the possibility of an information gap between Black and White buyers. He cited a Consumer Federation of America survey showing that, compared with White consumers, a higher percentage of Black consumers did not believe that the sticker price on a car was negotiable (cited in Ayres, 1995). Such perceptions may stem in part from accumulated past experiences in which sellers would not negotiate due to overt discrimination. It is also possible that Blacks' information sources did not impart as much information about the negotiation process as those of Whites. Whatever their source, these beliefs raise the possibility that differential information relevant to the negotiation may have contributed to different negotiated outcomes among racial groups. If Black consumers did not believe there was flexibility in pricing, they could not be expected to gain as much through negotiation.

Effect of Information and Social Networks in Negotiation

Information exchange is the heart of the negotiation process (Walton and McKersie, 1965; Neale and Bazerman, 1991). Because of the value of information, negotiators are advised to seek information from their opponents about preferences, alternatives, and bottom lines, while simultaneously using discretion in revealing such information about themselves (Raiffa, 1982; Lax and Sebenius, 1986). Several studies have demonstrated the effects of information exchange on negotiated outcomes (e.g., Thompson, 1991; Pinkley, 1995). Most

relevant for our purposes, negotiators who have inside information about their opponents, such as information about deadline constraints, have been found to procure higher individual and joint gains than negotiators without such information (Brodz, 1994). Information asymmetry can be disadvantageous for the party with less information (Akerlof, 1970; Valley, Moag, and Bazerman, 1998). Overall, there is both conceptual and empirical support in the negotiations literature for the hypothesis that gaining information from one's opponent leads to increased negotiation performance (Lewicki and Litterer, 1985).

In salary negotiations, information about the employing organization may provide an advantage to a job candidate attempting to negotiate a higher starting salary. Examples of helpful information include the organization's concessions in negotiations with previous job candidates, the potential negative consequences associated with pushing harder for further concessions, the range of starting salaries granted by the organization to similarly qualified past hires, the strength of the organization's preferences across the multiple issues being negotiated (e.g., salary, benefits), the organization's time frame for the hiring decision, the organization's alternative job candidates, and the organization's norms for conducting negotiations (e.g., which individual the candidate should approach to request a higher salary).

There are several methods a job candidate may use to obtain such information. Perhaps the most direct method is for the candidate to ask the employer for information during the negotiation process, but the employer may either furnish biased information or be reticent to reveal any information that could increase the candidate's leverage. The candidate could turn to published literature on the company, industry, or profession, especially with the increasing accessibility of such information on the Internet through sources such as the Wet Feet Guide (<http://www.wetfeet.com>). Unfortunately, because of the time lag associated with published literature, by the time information appears in public sources it may no longer be useful. One of the most useful sources of tailored, timely information may be a personal relationship with someone in the company, which can provide sensitive, detailed information that is not available through other sources.

Burt (1992) and Granovetter (1995), among others, argued that social networks help job seekers gather information about job opportunities with prospective employers (see also Lin, Ensel, and Vaughn, 1981; DeGraaf and Flap, 1988; Bian, 1997). For example, in an analysis of the *National Longitudinal Survey of Youth Labor Market Experience*, Wielgosz and Carpenter (1987) found that informal social networks reduced the amount of time applicants needed to find a job. Such findings are so well accepted that students in professional schools are now advised ad nauseam to develop their social networks to accrue such advantages. In addition to providing information about job openings, a candidate's social network may continue to provide information about the employer to the job candidate during the hiring process.

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In a study of a large retail bank, Fernandez and Weinberg (1997) found that job applicants who were referred by a current employee of the bank had more appropriate resumes, better-timed applications, and were more likely to be interviewed and ultimately receive a job offer than applicants who were not referred by a current employee. An information argument provides one explanation for these differences. Social ties communicate information to the employer about the candidate's skills or attributes, especially those such as trustworthiness that are difficult to discern via the formal hiring process. Social ties may simultaneously relay otherwise unobtainable information about the employer and the specific job to the applicant, who consequently makes "fewer mistakes when accepting a job" (Fernandez and Weinberg, 1997: 899). The amount and quality of this information would depend on the tie's position in the company and access to relevant information, along with the strength of the relationship between the candidate and the organizational member.

In addition to gaining information, job candidates may benefit from several sources of influence stemming from a relationship with a current employee. First, a social tie may actively campaign to improve the employer's perception of the candidate's competence. By "putting in a good word" for him or her (Granovetter, 1995: 58), the tie may favorably influence the company's hiring agent's opinion of the candidate's desirability. Second, the candidate may benefit even in the absence of overt influence attempts by the tie. The mere existence of a relationship between the organizational member and the candidate may enhance the trust the company's decision makers have in the candidate, increasing the credibility of the candidate's claims (Barley, 1991). Referrals from current employees may reduce employers' uncertainty about applicants' productivity, potentially improving the perceived quality of the employment match (Simon and Warner, 1992). Employees also assume some accountability for their referrals, diffusing responsibility for the hiring decision. A social tie who is prominent within the organization may help the candidate simply by publicizing their relationship. Kilduff and Krackhardt (1994) found that employees' perceptions that an individual had a prominent friend in the organization elevated their perception that the individual was a good performer. This can logically be extended to the negotiation process. If a candidate has a friend in the organization, the hiring agent will likely attribute positive characteristics to the candidate. Third, employers may assume that candidates with a tie to the organization will benefit from greater access to information from their network, so that they will not only be competent "but also that with connections to existing employees they will learn the ropes quickly" (Granovetter and Tilly, 1988: 194). As a consequence of these sources of influence stemming from having a social tie to the organization, the hiring agents may be more likely to increase the candidate's salary offer in response to the candidate's attempts to negotiate a higher starting salary:

Hypothesis 2 (H2): Job candidates whose social networks include a tie to the hiring organization will negotiate larger increases to their

initial salary offers than candidates who do not have a tie to the organization.

Social Networks of Minorities

Compared with demographic majority members, members of demographic minority groups may have informal networks in organizational settings that are limited along several dimensions (Brass, 1985; Morrison and Von Glinow, 1990; Ibarra, 1995). While most research on minorities' informal networks has examined relationships within single organizations, many of the mechanisms used to explain how network differences emerge should generalize to broader networks across multiple organizations. Perhaps minorities' biggest constraint is having available fewer people of the same race with whom they can form ties, presenting a structural impediment to the formation of same-race ties. Because same-race ties are likely to be stronger than cross-race ties (Tsui and O'Reilly, 1989; Thomas, 1990), racial minorities are likely to have fewer strong ties within their organization than Whites (Ibarra, 1993, 1995). To compensate for the relatively low support provided by the predominantly cross-race ties within their own organization, members of minority groups may seek supportive relationships with same-identity-group members from other organizations (Thomas and Alderfer, 1989; Thomas and Higgins, 1996). This may lead minority group members to have a relatively high number of extraorganizational relationships (Thomas, 1990; Ibarra, 1995), but within any single firm minorities face the same network constraint of limited opportunities for same-race ties as within their own organization. That is, minority job candidates, on average, are less likely than their White counterparts to have a preexisting social tie to any one firm that has a job opening. Thus, the same reasoning that explains network differences within single firms in the United States would also apply to minorities' networks within any particular firm to which they apply as a job candidate. Further, to the extent that minorities have less developed informal networks within an organization (Ibarra, 1995), they are less likely to be included in informal events with organizational members outside of work. Such events may be fertile ground for meeting people from other companies and extending both same-race and cross-race networks. Thus, disadvantageous informal networks within organizations may directly contribute to limited informal and professional networks across organizations. For these reasons, we predict:

Hypothesis 3 (H3): Members of racial minority groups will have fewer ties to an employing organization than their White counterparts.

Hypothesis 1 suggested that members of racial minorities would be disadvantaged in negotiation for a variety of reasons, including negative stereotyping, interpersonal bias, and information differences. Taking into account hypotheses 2 and 3, we expect differences in social networks among racial groups to contribute to differences in negotiated salary increases. If network ties lead to better negotiated outcomes (hypothesis 2), and professional networks are less developed for members of racial minority groups (hypothesis 3), we

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expect members of racial minority groups to obtain lower negotiated salary increases even if interpersonal biases are absent. More formally:

Hypothesis 4 (H4): Differences in social networks will mediate the relationship between minority group membership and negotiated salary increases.

We expect the level of mediation to depend on contextual factors such as the level and acceptability of overt racism both at the organizational and societal level.

METHOD

Data

The data were collected at a mid-sized high-technology firm in the U.S. over a 10-year period beginning in 1985. Information was gathered on all 3,670 external job applicants who were offered a job during the period. Of these, 3,062 were hired after accepting a final starting salary. Our analyses focused on the negotiations data from those candidates who accepted an offer with the company. These candidates accepted positions covering the full spectrum of jobs within a high-technology firm.

Dependent Variable

The primary dependent variable was the candidate's *negotiated percentage salary increase*. This was calculated by subtracting the initial salary offer from the final starting salary, dividing by the initial salary offer, and multiplying by 100. We defined *negotiated percentage salary increase* as a measure of negotiation success from the perspective of the employee, with a larger increase indicating a better outcome for the employee. Candidates' negotiated salary increases ranged from \$0 to \$12,797 (mean = 2,596, s.d. = 2,284), and the percentage increase ranged from 0 to 13.05 (mean = 4.47, s.d. = 3.40). Over 99 percent of the candidates in our sample received a salary increase (from initial offer to final offer) greater than 0, although 252 of the 3,062 candidates received less than a 0.5 percent increase. We used percentage increase rather than absolute increase to avoid obtaining poor estimates for those with large initial offers due to the greater variance associated with larger absolute increases.

Independent Variables

The company collected information on candidates' race at the time of the candidates' application. Candidates were asked to check only one category for race, and all candidates in our sample did so. To test the effects of race, we constructed dummy variables to indicate inclusion in each of five racial categories: *Asian*, *Black*, *Hispanic*, *White*, and *other race*. For each of these five dummy variables, applicants who were included in the designated racial category were assigned a value of 1 and others a value of 0. There were 1,839 Whites, 945 Asians, 143 Blacks, 127 Hispanics, and 8 others.

Our operationalization of candidates' social network ties to the employing organization was based on candidates' self-reported method of referral to the company at the time of application. The dummy variable *friend* was set to 1 for appli-

cants who reported that they were referred through a friend in the company and 0 otherwise. This dummy variable approach to measuring friendship is well established in the network literature (Krackhardt and Porter, 1985; Krackhardt, 1990; Marsden, 1990; Brass, 1992). We also created dummy variables for other methods of referral to use in supplemental analyses. *Ad* was set to 1 for those who came to the company through an advertisement, and 0 otherwise. Similarly, *campus* was set to 1 for those who started the recruitment process through a college campus recruiting visit, *cold call* was set to 1 for those who directly contacted the company, *contract* was set to 1 for those who were already contractors working for the company, *headhunter* was set to 1 for those applicants who were brought in through a headhunter, and *other referral* was set to 1 for those applicants who arrived through any other type of referral method. Each applicant was restricted to indicating a single method of referral.

Control Variables

We included several control variables to eliminate alternative explanations for significant effects. During the initial contact with the firm, candidates completed a written application that included several basic demographic questions. We controlled for job candidates' *gender* (1 = male, 2 = female), years of *education*, and *age* to account for variance explained by these demographic variables. The written application also included several psychological profile items that the company aggregated to create a quality-rating scale, with a potential range from 0 to 100 (100 = highest quality; sample mean = 89.35, s.d. = 13.18). While company representatives would not release the specific scale items, they reported that based on their previous analyses this rating was positively correlated with subsequent employee performance. Current representatives of the firm reported that the application had not changed substantively over the observation period. While we could not directly confirm this, we ran several of our analyses on subsamples with shorter time periods and found no substantive differences in the results. Company representatives informed us that they created the scale with the explicit intent to avoid adverse racial impact. A one-way analysis of variance confirmed that there were no significant differences in mean quality ratings among racial groups in our sample ($F_{(5, 3056)} = 0.76$, n.s.). Since the quality of an applicant might give the applicant more power in salary negotiations, we used *quality rating* as a control variable. While a more objective measure of quality would be ideal, the combination of education, age, and quality rating should capture most quality differences.

Because the period of observation was long, we included the Consumer Price Index (*CPI*) to control for inflation. CPI data were taken from the Bureau of Labor Statistics Internet site at <<http://stats.bls.gov>>. Annual figures from the "All Urban Consumers" category were used, with 1982–1984 serving as the base period. Finally, hired employees were asked in an entry survey how many *other offers* they had when they accepted the company's offer. We used this variable to control for power in the negotiation process. An applicant with more offers was assumed to have a better "BATNA" (best

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alternative to a negotiated agreement) and thus to be in a stronger negotiation position (Fisher and Ury, 1981; Pinkley, Neale, and Bennett, 1994). The range of other offers was 0 to 6 (mean = 1.06, s.d. = .90). Complete descriptive statistics appear in table 1.

Data Analysis

We used ordinary least squares regressions (OLS) to test hypotheses 1, 2, and 4, and logistic regression to test hypothesis 3. To test for the effects of racial category membership, we used White applicants as the reference group by excluding the dummy variable White from the regression equation. Thus, the unstandardized coefficients for the four

Table 1

Descriptive Statistics and Correlation Coefficients on Data for Hired Applicants (N = 3,062)

Variable	Mean	S.D.	1	2	3	4	5	6	7
1. Age	27.46	7.63							
2. Education	16.90	3.60	.67**						
3. Gender (males = 2303) (females = 759)	1.25	.43	-.21**	-.15*					
4. Quality rating	89.35	13.18	-.03	-.01	.00				
5. CPI	127.35	14.73	.01	.01	.01	.19**			
6. Initial offer	56504.89	19283.23	.63**	.88**	-.14**	.05**	.32**		
7. Other offers	1.06	.90	-.02	.01	.02	.04	.00	-.00	
8. Asian	.31	.46	-.24**	-.19**	.01	.01	-.03	-.18**	-.05**
9. Black	.05	.21	-.06**	.01	-.02	-.01	.01	.00	.17**
10. Hispanic	.04	.20	-.05**	.02	.06**	-.00	.02	.02	.10**
11. White	.60	.49	.27**	.17**	-.02	-.00	.02	.17**	-.07**
12. Other race	.00	.04	.05**	.03	-.02	-.01	.03	-.00	-.00
13. Ad (N = 43)	.01	.12	-.03	-.02	-.00	-.00	.02	-.01	.01
14. Campus (N = 169)	.06	.23	-.01	.07**	-.03	.02	.02	.04*	.07**
15. Cold call (N = 193)	.06	.24	-.15**	-.20**	.01	-.03	.00	-.16**	.01
16. Contract (N = 410)	.13	.34	-.10**	-.09**	.01	.01	-.01	-.10**	-.01
17. Headhunt (N = 150)	.05	.22	.17**	.20**	-.00	.00	.01	.20**	.03
18. Friend (N = 2061)	.67	.47	.09**	.05**	.00	-.00	-.02	.04*	-.04*
19. Other referral (N = 36)	.01	.11	-.03	-.01	.01	.01	.04*	-.00	-.00
20. Negotiated percentage salary increase	4.47	3.40	.17**	.14**	-.01	.00	-.04*	.11**	-.05**
Variable	8	9	10	11	12	13	14	15	
9. Black									
10. Hispanic									
11. White									
12. Other race									
13. Ad	.08**	.13**	-.03	-.12**	-.04*				
14. Campus	.15**	.27**	.03	-.26**	-.00				
15. Cold call	.10**	.15**	.01	-.16**	.01				
16. Contract	.40**	-.01	-.01	-.38**	.11**				
17. Headhunt	-.12**	.06**	.14**	.03	-.01				
18. Friend	-.38**	-.26**	-.08**	.51**	-.01				
19. Other referral	.01	.01	.01	-.02	-.00				
20. Negotiated percentage salary increase	-.31**	-.17**	-.03	.39**	-.01	-.13**	-.24**	-.29**	
Variable	16	17	18	19					
17. Headhunt									
18. Friend									
19. Other referral									
20. Negotiated percentage salary increase	-.42**	-.06**	.66**	-.12**					

* $p < .05$; ** $p < .01$.

included racial category variables indicated the difference in the dependent variable between the particular racial group and White applicants. We used the friend variable to test the effects of having a social tie in the employing organization. Referral based on being a contractor did not represent the same advantage as having a social tie for the purposes of salary negotiation because individuals who became employees after being contractors were generally just changing employment status from external to internal. This transition did not signify a full salary negotiation because contractors had already partially negotiated the terms of their compensation before becoming and during their time as contractors.

We tested the mediation effect predicted in hypothesis 4 by analyzing the effect on negotiated salary increase first of race alone (with only the control variables), then of friend without race included in the equation, and, finally, of race with friend included in the equation. A decrease in the effect of race when friend was added to the final equation, along with significant effects of these variables when tested alone, would indicate that the effect of race on negotiated salary increase was mediated by the presence of a social tie to the organization (James and Brett, 1984).

After testing the hypotheses, we conducted several supplemental analyses to examine the data in greater detail. We used OLS regression to test the effect of race on the number of other offers received. We also examined the effects of race and social ties on initial offers of those candidates who accepted an offer. Finally, we compared the effects of other methods of referral to having a friend in the organization by including the referral method dummy variables in the regression equation, using the friend variable as the excluded reference group, for both initial salary and negotiated percentage salary increase.

RESULTS

Table 2 shows the results of OLS regressions predicting negotiated percentage salary increase for all applicants who accepted jobs. Age and education both have significant positive effects on negotiated percentage salary increase. In the fully specified model, each year of education added .059 percent to the applicants' negotiated salary increase. Each year of calendar age increased the negotiated outcome .028 percent; candidates 45 years old gained .672 percent more, on average, than those 21 years old. Contrary to our expectations, the coefficient for other offers was negative, although this effect was not significant in the fully specified model.

To test hypothesis 1, we estimated race effects in model 3 using White as the excluded reference group. We found significant negative effects for all non-White racial groups. Blacks negotiated smaller salary increases than Asians ($t_{(3050)} = -3.97, p < .001$), and Asians negotiated smaller increases than Hispanics ($t_{(3050)} = -3.51, p < .001$). Race accounted for a 13.3 percent increase in explained variance. These effects provide strong support for hypothesis 1, as members of minority racial groups negotiated significantly lower salary increases than White job candidates.

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Table 2

Ordinary Least Squares Regressions Predicting Negotiated Percentage Salary Increase of Hired Applicants (N = 3,062)*

Variable	1	2	3	4	5
Age	0.060*** (0.011)	0.059*** (0.011)	0.011 (0.010)	0.028*** (0.008)	0.028** (0.008)
Education	0.053* (0.023)	0.054* (0.023)	0.063** (0.021)	0.062*** (0.017)	0.059*** (0.017)
Gender	0.191 (0.143)	0.198 (0.143)	0.042 (0.133)	0.073 (0.108)	0.052 (0.108)
Quality rating	0.003 (0.005)	0.004 (0.005)	0.003 (0.004)	0.003 (0.004)	0.003 (0.004)
CPI	-0.009* (0.004)	-0.009* (0.004)	-0.011** (0.004)	-0.006 (0.003)	-0.006* (0.003)
Other offers		-0.182** (0.067)	-0.079 (0.064)	-0.089 (0.051)	-0.100 (0.052)
Asian			-2.512*** (0.129)		-0.355** (0.118)
Black			-3.619*** (0.276)		-0.153 (0.241)
Hispanic			-1.484*** (0.289)		0.218 (0.239)
Other race			-3.991*** (1.101)		-0.609 (0.900)
Friend				4.679*** (0.098)	4.536*** (0.115)
R-square	0.031***	0.034***	0.167***	0.447***	0.449***

*p < .05; **p < .01; ***p < .001.

* Standard errors are in parentheses.

Hypothesis 2 predicted that having a social tie to the employing organization would result in a larger negotiated salary increase. Model 4 tested the effect of the friend variable without race included in the equation. Hypothesis 2 was strongly supported, as having a friend in the employing organization resulted in a significantly higher negotiated percentage salary increase. Candidates who had a social tie to the organization negotiated an increase that was 4.679 percent higher than those without a tie. The friend variable accounted for 28.2 percent of the variance in negotiated salary increases in the fully specified model 5.

The results of the logistic regression used to test hypothesis 3 are reported in the first column of table 3. Again using White as the excluded reference group, members of all racial minority groups were significantly less likely than White candidates to have a friend in the employing organization refer them for a job. Mirroring the pattern of results for negotiated salary increases, Blacks were less likely to be referred by a friend than were Asians (Wald chi-square₍₁₎ = 36.51, p < .001), and Asians were less likely to be referred by a friend than were Hispanics (Wald chi-square₍₁₎ = 4.67, p < .05). These results provide strong support for hypothesis 3. Results showed no effect for gender or education on having a friend in the organization.

Next we tested the mediation prediction in hypothesis 4. Model 5 in table 2 specifies the complete model, including both the friend variable and the race variables and excluding White. The positive effect of friend remained strongly significant, but the negative effects for the minority racial groups decreased dramatically; only the negative effect for Asian

Table 3

Logistic Regressions Predicting Method of Referral for Hired Applicants (N = 3,062)*

Variable	Friend	Contract	Ad	Cold call	Headhunt	Campus	Other referral
Age	-0.022● (0.009)	0.009 (0.012)	0.015 (0.033)	0.005 (0.020)	0.072●●● (0.015)	0.009 (0.017)	-0.061 (0.037)
Education	0.006 (0.017)	-0.024 (0.024)	-0.032 (0.065)	-0.393●●● (0.044)	0.148●●● (0.028)	0.141●●● (0.032)	0.054 (0.066)
Gender	-0.014 (0.107)	0.024 (0.136)	-0.025 (0.374)	-0.126 (0.179)	0.388 (0.215)	-0.173 (0.215)	0.027 (0.302)
Asian	-2.362●●● (0.102)	2.877●●● (0.162)	2.358●●● (0.504)	0.980●●● (0.180)	-1.214●●● (0.358)	3.215●●● (0.320)	0.139 (0.372)
Black	-3.978●●● (0.270)	1.629●●● (0.292)	3.563●●● (0.555)	2.573●●● (0.266)	1.375●●● (0.321)	4.534●●● (0.355)	0.142 (0.754)
Hispanic	-1.949●●● (0.193)	1.624●●● (0.305)	-4.249 (14.576)	1.002●● (0.388)	2.036●●● (0.279)	2.833●●● (0.440)	0.268 (0.754)
Other race	-3.862●●● (1.073)	3.011●●● (0.744)	-4.321 (58.065)	2.198● (0.919)	2.276● (0.939)	3.044 (20.838)	-3.606 (21.225)
Chi-square	881.154●●●	512.788●●●	62.887●●●	255.445●●●	213.841●●●	313.339●●●	4.384

● $p < .05$; ●● $p < .01$; ●●● $p < .001$.

* Standard errors are in parentheses.

remained significant, and even this coefficient was substantially smaller, indicating partial mediation. The effects for Black, Hispanic and other race were no longer significant when we controlled for having a friend in the organization, indicating perfect mediation. The friendship variable accounted for almost all of the statistical variation that race accounted for in model 3. The R -squared was not significantly different between models 4 ($R^2 = .447$) and 5 ($R^2 = .449$; $F_{(5, 3049)} = 2.21$, n.s.), indicating perfect mediation, as the race variables as a group add no additional explanatory power over the friend variable.

We also conducted subsample analyses by race to test the effect of friend on negotiated salary increase separately with each racial group. By rerunning model 4 in table 2 for members of each racial group, we found that Asian (friend $\beta = 4.964$), Black (friend $\beta = 4.786$), Hispanic (friend $\beta = 3.931$), and White (friend $\beta = 4.171$) candidates each negotiated significantly higher salary increases when they had a friend in the organization than did candidates of the same race who did not have a friend in the organization.

To test for the possibility of sample selection bias, we reran our analyses on all 3,670 individuals who received an offer. There are no differences in the pattern of significant results. For the 608 individuals who received an offer but did not accept employment we used the final salary offer, which does not necessarily represent the company's best offer (i.e., negotiations may have ceased due to the candidate's accepting a different job rather than to an inability to reach an agreement). We do not include these individuals in our main analyses.

To test for differential effects among various initial salary levels, we conducted subsample analyses by initial salary brackets (i.e., $\leq 40,000$; $> 40,000$ and $\leq 60,000$; $> 60,000$ and $\leq 80,000$; $> 80,000$ and $\leq 100,000$; $> 100,000$). These brackets are proxies for categorical distinctions among candidates, such as blue-collar versus white-collar. For each initial salary bracket, the friend variable either partially or fully mediated

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the effect of racial group membership on negotiated salary increase in the fully specified model, as in table 2. The beta coefficient for friend ranged from 3.550 to 5.010 across the five brackets. These patterns of results strongly support the prediction in hypothesis 4 that the effect of race on negotiated salary increase is mediated by social ties to the employing organization.

Supplemental Analyses

The effect of the control variable other offers on negotiated percentage salary increase was unexpectedly negative, although it did not reach significance in the fully specified model. Because alternatives to a negotiated agreement are frequently cited as an important factor in negotiations, we used OLS regression to determine what factors influenced the number of other offers held by an applicant. As reported in table 4, quality rating had a significant but small positive effect, as we would expect. Race was a much larger predictor. Using White as the excluded reference group, both Blacks and Hispanics had significantly more offers than Whites, perhaps because qualified minority applicants are highly sought after and thus receive many job offers. Managerial comments on minority recruiting support this view (Angwin and Castañeda, 1998). Although we would expect applicants with more alternatives to have greater bargaining power in the negotiation, the negative coefficient for other offers in table 2 indicates that the other offers held by Blacks and Hispanics did not result in higher salary gains through the negotiation process. Apparently, Blacks and Hispanics were unable to translate their higher number of other offers into superior negotiated outcomes. While highly qualified minority applicants may be highly sought after, it is not clear that this effectively translates into negotiated outcomes. We can only speculate as to why this is. One possibility is that minorities' other offers are not good offers and are thus not good alter-

Table 4

Ordinary Least Squares Regression Predicting Number of Other Offers for Hired Applicants ($N = 3,062$)*

Variable	1
Age	-0.000 (0.003)
Education	0.001 (0.006)
Gender	0.036 (0.038)
Quality rating	0.002 ● (0.001)
Asian	-0.020 (0.036)
Black	0.749 ●●● (0.077)
Hispanic	0.461 ●●● (0.081)
Other race	-0.365 (0.312)
<i>R</i> -square	0.043 ●●●

● $p < .05$; ●● $p < .01$; ●●● $p < .001$.

* Standard errors are in parentheses.

natives to a negotiated agreement. Another possibility is that those applicants not referred by friends do not realize the extent to which other offers provide additional bargaining power or do not incorporate this additional power into their negotiation in effective ways. This is consistent with the network argument.

Although our theory focuses on negotiated increases, we also conducted an analysis of the effects of our independent variables on initial offers. We did not include other offers as a control variable in these equations because this information was not collected until applicants had accepted a job, and other offers could have been received after the initial offer was made. As shown in table 5, age, education, and CPI all had positive effects on the initial salary offer, as we would expect. Using White as a reference group, there were no significant effects for minority group membership on initial offer in model 2, nor did having a social tie to the organization affect initial offers when entered alone in model 3. When friend and racial categories were both included in the model, however, the effect for Black applicants became significant, indicating that Black applicants received significantly lower initial offers than White applicants.

Table 5

Ordinary Least Squares Regressions Predicting Amount of Initial Offer for Applicants Who Were Hired (N = 3,062)*

Variable	1	2	3	4	5	6
Age	180.480*** (22.012)	172.467*** (22.589)	180.880*** (22.084)	171.207*** (22.607)	169.581*** (22.101)	165.195*** (22.565)
Education	4430.668*** (46.012)	4435.278*** (46.405)	4430.560*** (46.144)	4435.632*** (46.401)	4431.367*** (46.860)	4437.684*** (47.047)
Gender	-304.356 (291.290)	-329.516 (292.107)	-02.785 (291.366)	-330.286 (292.074)	-362.241 (290.457)	-364.805 (291.059)
Quality rating	0.423 (9.514)	0.196 (9.521)	0.435 (9.516)	0.231 (9.519)	1.394 (9.481)	1.033 (9.487)
CPI	409.472*** (8.510)	409.409*** (8.516)	409.426*** (8.513)	409.012*** (8.521)	409.051*** (8.484)	409.149*** (8.493)
Asian		-298.096 (282.463)		-489.683 (318.464)		-36.649 (331.332)
Black		-949.730 (596.583)		-1252.962• (641.208)		-958.292 (660.370)
Hispanic		-301.024 (629.336)		-451.250 (639.755)		-569.638 (639.781)
Other race		-1015.833 (2413.727)		-1316.849 (2424.501)		-1560.197 (2416.257)
Friend			-60.687 (263.545)	-402.686 (309.279)		
Ad					787.957 (1045.382)	1035.897 (1074.550)
Campus					-1453.662•• (545.173)	-1172.772 (601.308)
Cold call					868.879 (521.512)	1049.722 (544.629)
Contract					-598.419 (369.072)	-535.585 (419.746)
Headhunter					2310.398*** (583.667)	2496.222*** (594.960)
Other referral					-363.555 (1141.170)	-308.105 (1143.426)
R-square	0.876***	0.876***	0.876***	0.876***	0.877***	0.877***

• $p < .05$; •• $p < .01$; ••• $p < .001$.

* Standard errors are in parentheses.

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Because the results of the logistic regressions predicting method of referral (table 3) revealed that race had differential effects on all methods of referral, we tested the effects of these methods of referral on initial offer (table 5, models 5 and 6) and on negotiated percentage salary increase (table 6). In each set of regressions, we used friend as the excluded reference group to test the dummy variables for each method of referral. For initial offer, applicants who were referred to the company by a headhunter received significantly higher initial offers than those referred by a friend, while applicants who gained access to their job through a campus interview received significantly lower initial offers. When both race and method of referral were included in the equation in model 6 of table 5, the positive effect for using a headhunter remained significant. The significant negative effect for Black applicants found in model 4 of table 5 was no longer significant in model 6 when all methods of referral were included in the equation. This shift in significance can be explained by the results in table 3, showing that Black applicants were significantly more likely than White applicants to be referred to the company through a headhunter. Therefore, in model 6, the inclusion of headhunter in the equation accounted for some of the variance that was attributed to the variable for

Table 6

Ordinary Least Squares Regressions Predicting Negotiated Percentage Salary Increase of Hired Applicants (N = 3,062)*

Variable	1	2	3	4	5
Age	0.060*** (0.011)	0.059*** (0.011)	0.011 (0.010)	0.020* (0.008)	0.020* (0.008)
Education	0.053* (0.023)	0.054* (0.023)	0.063** (0.021)	0.041* (0.017)	0.040* (0.017)
Gender	0.191 (0.143)	0.198 (0.143)	0.042 (0.133)	0.023 (0.107)	0.020 (0.107)
Quality rating	0.003 (0.005)	0.004 (0.005)	0.003 (0.004)	0.003 (0.003)	0.003 (0.003)
CPI	-0.009* (0.004)	-0.009* (0.004)	-0.011** (0.004)	-0.006 (0.003)	-0.006 (0.003)
Other offers		-0.182** (0.067)	-0.079 (0.064)	-0.099* (0.050)	-0.105* (0.051)
Asian			-2.512*** (0.129)		-0.076 (0.122)
Black			-3.619*** (0.276)		0.057 (0.245)
Hispanic			-1.484*** (0.289)		0.040 (0.236)
Other race			-3.991*** (1.101)		0.728 (0.887)
Ad				-5.063*** (0.384)	-5.046*** (0.394)
Campus				-4.953*** (0.200)	-4.938*** (0.221)
Cold call				-5.094*** (0.191)	-5.078*** (0.200)
Contract				-5.076*** (0.135)	-5.030*** (0.154)
Headhunter				-2.665*** (0.214)	-2.671*** (0.219)
Other referral				-5.131*** (0.419)	-5.123*** (0.420)
R-square	0.031***	0.034***	0.167***	0.466***	0.466***

* $p < .05$; ** $p < .01$; *** $p < .001$.

* Standard errors are in parentheses.

Black applicants in model 4, explaining why the effect for Black applicants was no longer significant. The apparent race effect disappears entirely in the fully specified models, where the various methods of referral are compared with a reference group of friendship referral. Thus, when controlling for all possible referral methods, there is no race effect on initial offer. The initial offer is not directly biased by race.

Table 6 reports our final set of regressions for our dependent variable. We analyzed the effects of all methods of referral and race on negotiated percentage salary increase. All methods of referral resulted in lower negotiated percentage salary increases than friend, which was the excluded reference group. We also conducted comparisons of the coefficients for the included methods of referral. Using a headhunter resulted in a significantly higher percentage negotiated increase than an ad ($t_{(3044)} = 5.57, p < .001$), cold call ($t_{(3044)} = 8.97, p < .001$), campus ($t_{(3044)} = 8.19, p < .001$), contract ($t_{(3044)} = 10.15, p < .001$), or other referral ($t_{(3044)} = 5.34, p < .001$). Whereas the negative effect for Asian applicants remained significant in model 5 in table 2 when only friend was added to the equation, in model 5 in table 6, all of the effects for racial categories dropped from significance, indicating perfect mediation. We attribute this to the additional variance accounted for by including all of the methods of referral, together with the differences in the use of various methods of referral by members of different racial groups, as reported in table 3.

DISCUSSION

The results provide strong support for the claim that systematically different referral networks put racial minorities at a disadvantage when negotiating increases to an initial salary offer. We found significant effects in support of our hypotheses for each component of this mediated effect. First, having a friend in the employing organization had a strong positive effect on negotiated salary increases. Second, members of racial minority groups had fewer friends in the employing organization. Finally, the direct effect of belonging to a racial minority group on negotiated salary increase was initially significantly negative, but this effect dropped from significance when we controlled for the effect of having a friend in the organization, providing strong evidence for mediation by the presence of a friend.

These results are consistent with our theoretical reasoning that having a friend in the hiring organization is beneficial to the applicant during the salary negotiation phase of the hiring process. We proposed several mechanisms through which friends might provide such benefits. The two principal advantages involve the transmittal of inside information to the applicant by the employed friend and the influence the friend may wield within the company to help the applicant acquire favorable employment terms. These mechanisms were founded primarily in network research in the employment context. Granovetter (1995) and others have reasoned that weak social ties provide the greatest range of information and influence to job seekers because weak ties have a longer reach than strong ties, bridging across organizations and hier-

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archical levels (Lin, Ensel, and Vaughn, 1981). Similar to Fernandez and Weinberg (1997), however, we believe that once an applicant locates a particular job opening, having a friend rather than a weak tie in the employing organization may provide greater advantages during the hiring process. Particularly when the applicant attempts to negotiate salary, the most useful information may also be the most sensitive. Part of the sensitivity of such information rests on the fact that if transmittal of the information provides an advantage to the applicant, it then provides at least some disadvantage to the company if the salary negotiation is zero-sum. The friend in the company may be pulled in opposite directions by competing loyalties to both the company and the applicant, perhaps even being caught in an ethical dilemma. The employed friend is more likely to resolve such a dilemma in favor of the applicant when the two are strongly connected. The trust that characterizes such an embedded relationship may foster the voluntary exchange of fine-grained sensitive information (Uzzi, 1996: 678).

Both the current study and Fernandez and Weinberg's (1997) study investigated the effect of applicants' social ties to the company on various aspects of the hiring process. Fernandez and Weinberg (1997), through their fine-grained analysis of resume content and timing of applications, were able to draw inferences about the mechanisms that provide benefits to socially tied applicants. They found evidence of advantages in the application, interview, and job-offer stages of the hiring process. Extending their research, we examined the next step in the hiring process after the job offer has been made—the negotiation of the terms of the offer. Further differentiating this study from Fernandez and Weinberg's, we looked at the effect of racial group membership on this negotiation, together with the mediating effect of social ties on the relationship between racial group membership and salary negotiation outcomes. Despite these differences, the two studies converge in demonstrating the importance of social ties throughout the hiring process.

Further advantages, beyond information and influence, may accrue to candidates who have a friend in the company. Such candidates may exhibit more confidence when negotiating simply because they know they have an ally in the company, and employers may value confidence. Candidates referred by friends may find themselves in a less formal hiring environment than traditional recruitment environments (e.g., campus recruiting), making it easier for these referred candidates to negotiate. Another possibility is that both majority and minority candidates with outgoing personalities may have larger social networks than their less sociable counterparts (Chatman, Flynn, and Spataro, 1999), and extroverts may have more effective negotiating styles. While these mechanisms may have contributed to the reported effects, information and influence are likely to be the strongest explanatory processes.

Although this study lacks data on the strength of ties, the reasoning can be extended to the theory of how social networks assist job seekers: weak ties are more helpful in locating a job opening, but strong ties provide more advantages

when negotiating the terms of a located job. The weak and strong ties that constitute a person's total network can be construed as a portfolio. A diversified portfolio with many weak ties increases the probability of hearing about openings, while strong ties yield larger returns when gathering specific sensitive information. For example, if an individual has 100 resource units, consisting of time or effort spent cultivating a tie, to allocate across his or her network, one strategy is to maximize diversification—at the extreme, yielding a network of 100 ties each of strength 1. At the opposite end of the spectrum is the concentrated strong-tie strategy of investing all 100 resource units in a single individual. Both types of ties have unique advantages: weak ties provide access to nonredundant information from outside a focal actor's social circle, but strong ties are more willing to divulge what information they have (Granovetter, 1982: 113). While a balanced portfolio seems sensible, both sociological (Granovetter, 1982) and economic (Boorman, 1975) analyses suggest that people facing employment insecurity because of idiosyncratic individual circumstances or high market unemployment are better off cultivating strong ties, while those facing more secure conditions should invest relatively more in broadening their network of weak ties. These analyses are targeted toward locating a job opening, which is a necessary precondition for negotiating the terms of a subsequent job offer. Nevertheless, investing in some strong ties to strategically placed actors can provide unique returns under any circumstances. Examining the effect of strength of tie is a promising angle for future research.

Our results demonstrated that the presence of a friend in the company fully mediated the relationship between minority group membership and negotiated salary increases for Black and Hispanic applicants. The remaining negative effect for Asians also disappeared when all methods of referral were accounted for. While we specified in our hypotheses that the level of mediation would depend on contextual factors, we were somewhat surprised by the strength of this effect. There are many other potential sources of disadvantage for racial minorities in salary negotiations, including direct interpersonal discrimination during the social exchanges that make up the negotiation. Such discrimination may manifest itself in the company failing to provide the same information to minority and majority members when similarly requested by each or by the company making fewer or smaller concessions to minorities, as Ayres (1995) found. But the lack of a significant effect for race on the initial offer (when method of referral was added to the equation) is inconsistent with Ayres' (1995) findings that Black consumers received worse initial offers than White consumers. This divergence may be attributable to the different types of negotiations being analyzed, including the clear expectations for future interaction between the negotiating parties that is inherent in a salary negotiation. Interestingly, when the company made offers, the amount of the initial offer was unbiased. This is one indication that interpersonal racial bias did not directly affect the decisions of the company during the hiring process and that in this particular organization, overt racism is not found.

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Where overt racism is still practiced, we would expect only partial mediation.

We found that candidates who used headhunters negotiated lower salary increases than candidates who had a friend in the company but higher increases than candidates who used any other method of referral. Candidates using headhunters also attained higher initial offers than those using any other method of referral. If the headhunter has a relationship with employees in the hiring company, candidates who include the headhunter in the salary negotiation may benefit via the same information and influence mechanisms through which direct ties to the company provide benefits. Headhunters may have additional advantages derived from their experience negotiating with the company in the past and the company's anticipation of future negotiations with the headhunter. It may be that headhunters deployed their influence and information to attempt to increase the salary level both before and after the company made an initial offer, whereas having a friend in the company was more useful in responding to rather than in influencing the amount of an initial offer.

The strength of race effects that have been found in other studies of wage discrimination may be reduced if social network data were accounted for in the analyses. While it is likely that racial minorities use their networks to the same degree as Whites, their networks may provide less access to companies with primarily White employees. In a company in which a racial minority group is a numerical majority, we might see very different results. Network differences may contribute to wage differentials that favor demographic groups in the numerical majority. Most U.S. companies are now populated by a majority of White employees, but in recent years this has been changing and is expected to continue to change as more racial minorities and foreigners enter the workforce (Johnston and Packer, 1987). While the changing workforce may help to mitigate the network disadvantages currently posed to minorities, glass ceiling effects continue to limit the advantages minorities may accrue from their social networks (Morrison and Von Glinow, 1990).

This study advances negotiation theory by providing conceptual logic and empirical support for how the network structure in which the parties are embedded affects negotiated agreements, a neglected topic in the negotiation literature (Barley, 1991; Kramer and Messick, 1995). Information exchange is typically construed as a process that occurs between the negotiating parties themselves, although the potential to assess the other party's position indirectly has clearly been recognized, including "utilizing an informant from Opponent's headquarters" (Walton and McKersie, 1965: 63). Alternatives to a negotiated agreement, a theoretical source of negotiating power that has shown strong positive effects in previous negotiation studies (Pinkley, Neale, and Bennett, 1994), had a negative effect in the complete model. We proposed that the distribution of other offers on race was due to highly qualified minority candidates being sought after by many companies, but we were not able to ascertain the quality of these other offers. Other offers that were unattractive may not have helped applicants obtain higher salaries. This

type of contextual frame to the negotiation is difficult to capture in a laboratory setting. To our knowledge, the theoretical relationships among racial group membership, social networks, and negotiation outcomes as developed in this study have not been elaborated or tested before.

There are several limitations to our study, most of them stemming from the restrictions of our data set, that could be addressed by future research. We were not able to test directly several of the theoretical mechanisms on which we based our hypotheses. For example, we did not have measures of information exchange or influence attempts. Nor were we able to assess the strength or nature of the reported friendship between the job applicant and his or her friend in the company. We believe that a stronger tie would yield a larger negotiated increase but were unable to test this in this study. The position of the friend within the company is also an important factor when predicting effects on salary negotiations, as various employees in a company have different levels of access to information relevant to the negotiation. Having a friend who is directly involved in the hiring process, or who is at least friends with the people in charge of hiring, would increase the negotiated surplus. Burt (1998) suggested that women have differing returns to their social networks than men. Similarly, preferences for homophilous social ties should contribute to less developed networks within any single company for racial minorities. While we found support for the prediction that minorities were less likely to have a friend in the employing organization, we were unable to test whether existing social ties between organizational members and job candidates were homophilous. A clear direction for future research is to develop and test hypotheses about the mechanisms that contribute to the effects reported in this paper.

Some candidates may have used more than one referral channel (e.g., a candidate might see a job advertisement in the newspaper, then call a friend in the company to inquire about it), yet they were restricted by the survey methodology to check only one method of referral. This limitation of the referral variable makes our hypothesis testing more conservative. That is, candidates who checked a non-friend referral method but also had a friend in the company should have accrued the advantages of having this friend when negotiating their salary. This would dampen the difference in negotiated salary increase between candidates referred by a friend and those in the non-friend referral categories, decreasing the likelihood of finding network discrimination effects.

Our test of the hypothesis that minorities have smaller networks across organizations was limited to a sample of network contacts from a single organization. Nevertheless, if, as we believe, this organization is representative of the larger population of U.S. organizations, the finding that minorities have fewer friends in this organization should generalize to larger samples of organizations. Although using data from a single company also restricts our ability to generalize the other findings to other organizations, the company we studied was progressive during the time from which data were drawn in that it attempted to ensure that minorities were not

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disadvantaged. Because using data from such a company provides a conservative test of our hypotheses, we may find much stronger effects in other organizations. Despite these limitations, our data provide a unique test of the effects of differences in social networks across minority groups on negotiated outcomes.

A troubling policy implication of these findings is that unbiased company policies are not adequate to prevent systematically lower salaries for racial minorities. For example, suppose a company has a policy that a candidate's request for a higher salary will only be granted if the company has no other viable candidates for the position and if there is a short timeline for filling the position. There is nothing inherent in this policy that should provide advantages to any particular demographic group. But this policy will only take effect *if* a candidate requests a salary increase. The candidate may perceive risk in requesting a higher salary, however, because it may strain relations with the company representatives, making it advantageous for the candidate to be able to assess the likely success of such a request (Walton and McKersie, 1965). A friend may provide information not only on the availability of other viable candidates and on the company's timeline but also on the company's policy about fulfilling such requests. The inside information a friend provides may allow the candidate to make an accurate estimate of whether a request will succeed and, therefore, whether it is worth the risk. In this way, while the company's policy by itself is not discriminatory, the candidate may know when to press for a salary increase, and when not to, based on knowledge of the company's policies gained through the candidate's social network. If social networks differ by race, then having specific policies designed to standardize the negotiation process may still inadvertently help candidates from the majority use inside information to tailor their negotiation tactics.

Companies concerned about discriminatory hiring practices often respond by doing targeted recruitment of minority groups. While such practices may help minorities locate job openings, merely bringing minority applicants into the hiring process may not afford them the same advantages as applicants who procure consideration for employment via other avenues. In our data, subsample analyses by race revealed that all applicants, including minorities, who were referred by a friend in the company were able to negotiate higher salaries than their counterparts who did not have such a tie to the organization. This indicates that when minorities' social networks extend into a particular employing organization, minorities are able to accrue similar advantages from their social networks as majority members. Inequities occur because minorities' social networks are not as well developed in the organizational arena as are the networks of majority members.

Individual companies may take more direct steps to try to level the playing field during the recruitment process, such as assigning each candidate a recruiting mentor in the organization. This type of formal structural solution would be very difficult to implement effectively, however, given the incentives of employee recruiting mentors to act in the company's inter-

est, and a recruiting mentor is unlikely to reveal sensitive information about the company's position in salary negotiations. Although such mechanisms may make the company appear more fair (and in some cases may be used for this purpose), they are unlikely to increase actual fairness (Greenberg, 1990).

Companies seem unlikely to institute formal mechanisms that might fully rectify information imbalances during salary negotiations because the success of such mechanisms would result in higher payroll expenses. It is precisely because the information that is truly advantageous to a candidate is sensitive that a close social tie to the organization is necessary to acquire it. To the extent that same-race ties tend to be stronger than cross-race ties (Thomas, 1990; Ibarra, 1995), future minority applicants should derive more network benefits as organizations hire more minorities, particularly into influential positions (Cohen, Broschak, and Haveman, 1998). From an individual company's perspective, the most efficacious remedy for the inequity stemming from candidates' systematically different social networks may be for the company to diversify its workforce, thereby providing more opportunities for homophilous ties for a diverse set of candidates. Because social forces may lead organization members to recruit and select applicants who are similar to themselves (Kanter, 1977; Brass, 1985; McPherson, Popielarz, and Drobnic, 1992), however, exogenous interventions (e.g., governmental regulations) may ultimately be required to offset disadvantages stemming from systematically varying social networks. It is also important to ensure that future job candidates of all races have access to social domains in which both same-race and cross-race ties can be established. For example, educational institutions provide benefits not only by improving students' qualifications but also by providing opportunities for students to establish social ties to both fellow students and the employers who frequent their schools.

The race effects that are so frequently observed in employment studies seem to occur in part because race serves as a proxy for social networks. While conventional wisdom tells us that who you know is as important as what you know, specifying exactly how social networks confer advantages, and documenting what those advantages are, will help us understand why it matters who you know. Our results showed that the differences that occur in social networks among racial groups are a major source of inequity in negotiated salaries and contribute to within-job wage discrimination at the hiring stage. Paying closer attention to networks may provide insights into subtle discrimination effects over the course of a minority employee's career. Only with such insights are we likely to understand how discriminatory wage differences occur despite organizations' well-meaning attempts to prevent them.

Friends in High Places

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