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Sex and Race Discrimination Resulting from Manager–Client Relationships: Applying the Rational Bias Theory of Managerial Discrimination

Laurie Larwood
State University of New York at Albany

Eugene Szwajkowski
University of Illinois at Chicago

Suzanna Rose
University of Missouri at St. Louis

Rational bias theory predicts that discrimination may be situationally influenced by circumstances in which a show of bias seems likely to be rewarded or punished by others. This study applies the theory in an examination of managerial sex and race discrimination in situations in which normative or unusual signals are given. In agreement with rational bias theory, the participants, acting in the role of managers, indicated that they would be less likely to discriminate in personnnel decisions with cues indicating that discrimination might not be needed or wanted. The results are interpreted as supportive of rational bias theory and as useful for the design of new policies aimed at ending discrimination. The findings also suggest that the importance of discrimination against blacks of both sexes in management has been widely ignored.

Women and minorities continue to experience discrimination within business organizations despite a number of federal antidiscrimination regulations and three decades of feminist and civil rights activism. Women account for 44.4% of the civilian labor force; yet only 36.8% of executive, administrative, and managerial positions are filled by women (U.S. Department of Labor, 1987, p. 179). Median earnings for men in these positions exceeded women's by nearly $11,000 per year (U.S. Department of Labor, 1985). Inequality between males and females in opportunity and organizational out-

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comes, for example in salary and advancement decisions as well as in educational investment, has been well decumented (see England, 1984; Rosenbaum, 1984; pp. 217–222; Larwood & Gattiker, 1987).

Like women as a class relative to men, blacks as a class relative to whites have experienced substantial difficulty in moving in organizations. Field studies have demonstrated that the earning level and occupational prestige of black workers with college degrees are lower than comparably educated whites (Parcel, 1979). In addition, although blacks comprised 9.9% of the labor force in 1986, only 5.2% of executives, administrators, and managers were black (U.S. Department of Labor, 1987, p. 197). A slower rate of salary increase and promotion has been documented for minority MBAs (those holding master of business administration degrees) as compared with white MBAs (Brown & Ford, 1977). Blacks averaged a salary increase of 23% over a five-year period, compared to 54% for whites; just 31% of black but 73% of white MBAs who had been out of school for four or more years had reached middle-management or higher positions. Although differences in hiring and promotion of blacks has been attributed to performance differences, this justification fails to account for discrimination when equal performance is ensured (Dovidio & Gaertner, 1981; Schmidt & Hunter, 1981).

The purpose of this research is to examine the extent to which sex and race discrimination may be influenced by particular situational factors independent of either personal prejudice and group identification of those discriminating or of intentional organizational policy. Specifically, using a population of individuals preparing for management roles (and generally experienced in business), we examine the notion that bias may result as a response to perceptions of client attitudes as proposed by the "rational bias theory" of managerial discrimination (Larwood, Gutek, & Gattiker, 1984; Larwood, Szwajkowski, & Rose, in press). A collateral purpose of this research is to compare sex with race discrimination. While the former is widely examined, race discrimination is still little studied; nonetheless, rational bias theory is concerned with bias in a generic sense and would seem to apply equally in explaining both sex and race effects.

Larwood et al. (1984) developed the theory of rational bias to account for patterns among managers of prejudice in organizations. They proposed consideration of the perceived context of potentially discriminatory managerial decisions as a supplement to the established theories of discrimination originating in psychology, sociology, and economics. Rational bias is based on the notion that a manager's decision about whether to discriminate will partly depend on the effect the decision may have on his or her career. Thus even a well-educated and well-intentioned manager might "rationally" make decisions resulting in discrimination in order to make a favorable impression on those having power over his or her career. In this sense, *rational* does not equate with objectively *logical, justified, reasonable,* or *correct.* The term is used instead as in classical economics to denote behaviors and attitudes consistent with an instrumental orientation. In agreement with earlier research (cf. Porter & Roberts, 1976, p. 1559), concern with the impressions of others is seen by the theory to depend directly on the manager's apparent risk from ignoring the wishes of the others and on the apparent advantage to be gained by acceding to those wishes.

In consequence, if discrimination is thought to be expected or preferred by powerful superiors or major clients, the theory predicts that the self-interested manager might engage in discrimination even when he or she has no personal prejudice, and is aware of and supports regulations prohibiting bias. Conversely, the manager would be expected to refrain from discriminating when it is thought to be frowned upon by superiors or major clients. Thus discrimination, which seems superficially irrational in an organization supposedly concerned with productivity or efficiency, may be the product of a rational decision based on self-interest and beliefs concerning powerful others.

The conditions surrounding such attributions to others have been suggested by correspondent inference theory (cf. Jones & Davis, 1965; Jones & McGillis, 1976; Ross & Fletcher, 1985, pp. 75–79), a form of attribution theory developed to examine the manner in which an alert perceiver infers the beliefs of others. A show of solidarity with the opinions attributed to more powerful others seems particularly likely if the manager making the inferences (and possibly the decision to discriminate) is ambitious (Porter & Roberts, 1976, p. 1575; Webber, 1970) and may occur even though the powerful others about whom the inferences are made will not be directly affected by the manager's decision (Baskett, 1973).

The concept of the rational but self-interested manager—one who behaves as though weighing alternatives—is also found elsewhere in motivational theory. For example, expectancy, or VIE (Valence-instrumentality-expectancy) theory has been repeatedly applied in predicting decision outcomes (Campbell & Pritchard, 1976; DeCotiis & Lelouarn, 1981; Matsui, Kagawa, Nagamatsu, & Ohtsuka, 1977; Vroom, 1964). Although the theory takes varying forms, overall it suggests that managers prefer alternatives yielding the highest subjective expected value on the basis of a conscious or unconscious calculation. Awareness of regulations against discrimination and the likelihood of being discovered would play a role in a manager's consideration of alternatives according to the expectancy approach. However, managers would also consider any advantages gained by supporting a society wide background norm of historical sex and race discrimination.

Field studies have reported considerable indirect evidence corroborating the notion of rational bias. Managers have been found more likely to discriminate against Jewish male subordinates when they were expected to work with potentially biased customers (Quinn, Tabor, & Gordon, 1968; see also Dexter, 1979, 1985). Compared with managers who fail to comply with affirmative action guidelines, those supporting the guidelines may believe they risk losing prestige in the eyes of others (Barnhill-Hayes, 1979). In Larwood and Gattiker's (1985) study of the attitudes of management consulting clients, client attitudes were found to support discrimination against female management consultants by management consulting firms. An earlier study (Gealy, Larwood, & Elliott, 1979) also found parallel evidence of actual discrimination against female management consultants by the consulting firms employing them. Less is known about client attitudes toward minorities, but bias against minorities has been demonstrated in business hiring practices (Firth, 1981; Hitt, Zikmund, & Pickens, 1982) and performance ratings (Kraiger & Ford, 1985).

Thus the antecedents (discriminatory attitudes among those having organizational power) and consequences (sex and race discrimination by those serving them) predicted by rational bias theory have been empirically established. Whether it is the process of rational bias that links the two, however, has not previously been examined.

Preconditions and Hypotheses

As the foregoing suggests, a testable assumption of rational bias theory is that the decision maker perceive power holders in business as having broad prejudices regarding sex and race. If this assumption is not met, rational bias theory would be inoperative. However, if participants view business norms as favoring discrimination even to a minor degree, specific hypotheses derived from the theory can be examined. Three preconditions that would satisfy the asumption of a belief that business norms are biased are as follows:

Precondition 1. *Business people are viewed as more widely accepting of males in business than of females.*

Precondition 2. *Business people are viewed as more widely accepting of whites in business than of blacks.*

Precondition 3. *Those making personnel decisions feel they must accept the norms of business.*

A related research question, about which we did not feel the prior literature allowed a firm prediction, was whether race discrimination might parallel, be stronger, or be weaker than sex discrimination.

The hypotheses in the present investigation are drawn from rational bias theory and correspond directly to three predictions of Larwood et al. (1984).

The latter suggest that discrimination is frequently based on the rational manager's reading and responding to social signals. If the norm favors discrimination and an individual cannot escape concern with the norm (Preconditions 1–3), then discrimination would be the usual or default behavior. In contrast, however, individuals who are themselves categorized as members of classes subject to discrimination, or who engage in counternormative behavior, attract attention and allow the inference that their preferences oppose the discriminative norms (Jones & McGillis, 1976, p. 391; Ross & Fletcher, 1985, p. 77). Thus, counternormative signals provide stimuli to the effect that the manager may be punished for engaging in discrimination. Those who are sensitive to such signals may in fact decrease discrimination or even overcompensate for it.

Hypothesis 1. *Managers are more likely to discriminate in personnel decisions if those holding power over them are not members of a discriminated-against group than if the power holders are members of such a group.*

Hypothesis 2. *Managers are more likely to discriminate in personnel decisions if those holding power over them made the initial contact through someone who is not a member of a discriminated-against group than if the initial contact was made through a member of such a group.*

Hypothesis 3. *Managers are more likely to discriminate in personnel decisions if those holding power over them have not expressed any unusual dislike of discrimination than if the power holders have gone to an unusual length to state the unacceptability of discrimination.*

Taken together, these preconditions and hypotheses allow the examination of both sex and race discrimination and, if supported, suggest three ways in which discrimination might be countered.

METHOD

Participants

Participants were recruited for a study of organization–client relationships from two introductory management courses at an urban campus of a major public Midwestern university known for its high proportion of employed students. A total of 293 undergraduate business students, 75.9% of those enrolled in the courses, completed the survey. The sample included 143 males (48.8%) and 150 females (51.2%); the group was 74.4% white, and 25.6% minority racial categories. Mean age was 21.9 years. Among the total sample, 94.5% had worked and 78.5% were currently employed; participants averaged 5.1 years of work experience. The influence of work experience, participant sex, and race are discussed further in the results section below.

Procedure

Potential participants were given instructions in their classes for accessing a computer program that would present the questions for this study and record their responses. They were also told in advance that responses were sufficiently important that every effort was being made to ensure honesty; thus they would respond privately and would have the option to destroy their responses before exiting the program. While it might seem that nonparticipation and withdrawal would introduce a selection bias, precedents exist to indicate that participants are not differentially reluctant to participate once assured of confidentiality (cf. Clinard, 1983, p. 33; Sonnenfeld, 1981, p. 195).

The questions were administered through an interactive computer program, allowing participants to participate at their own convenience. The entire response process required a mean of 23.3 minutes, including instructions. Further information on the development of this type of interactive program, and its efficacy for use on questions concerning personal and social values, is provided in Szwajkowski and Larwood (1985); full details regarding confidentiality and control procedures are available from the authors.

Questionnaire

Overview. After progressing through a screen giving them information on confidentiality and on how the interactive program functioned, participants were asked demographic and work history information. They were then given one form of the hypothetical organizational situation described below, questioned about their respnses to aspects of the situation, and asked their interpretation of certain norms in business. Questions dealing with the norms of business were placed at the end so as to avoid the possibility of their sensitizing participants to possible norms and thereby contaminating the results concerning the later hypotheses.

Norms. The three preconditions assessed participants' views of prevailing norms in business. For the operation of the hypotheses, it was unimportant whether or not such norms actually exist, but it was necessary that participants believe they did. In order to establish the existence of these beliefs, all participants were asked several questions intended to determine the extent to which they considered that sexual and racial prejudice exists in business and whether they felt a manager can ignore or change such norms (see Table I).

Organizational Situation. For Hypotheses 1–3, participants were presented with a hypothetical situation that formed the context of the next group of questions:

> The G-Tek Computer Corporation is a member of a rapidly growing industry having both problems and opportunities. You are a middle-level manager at G-Tek and work with customer (client) firms. Your department is responsible for obtaining contracts from these firms. Once the contract is obtained, other departments work with the firm to execute the project; your responsibility from that point on is simply to make sure the client relationship is as smooth as possible. . . . you want to obtain more contracts in the future.
>
> Your boss is the contracts manager, who supervises both obtaining and executing the contracts. You have personally recruited both of your subordinates—a WHITE MALE AND BLACK FEMALE. Luckily, they were both in the top 10% of the same MBA graduating class at your alma mater, a Big Ten school. You managed to get them both on a single recruiting trip to your old campus.

Because the present study was concerned with the effects of both sex and race, six different situations were used, varying only in the subordinates described: a white male and a white female, a black male and a black female, a white male and a black male, a white female and a black female, a white female and a black male, or a white male and a black female (for explanatory purposes indicated as upper case in the paragraph above). The conditions were varied at random by the computer program, and a particular participant saw only one combination.

Signaling Questions. Subsequent to reading the situation, participants were presented with the "signaling" question set intended to test Hypotheses 1–3. Participants were asked to place themselves in the position of making a personnel decision—to select a black or white male or female to negotiate with a client under specific conditions. To test each hypothesis, the computer program randomly assigned the participant to one of two question forms corresponding to the extremes consistent with that hypothesis. For example, the initial hypothesis suggested that managers would be reactive to the power holder's sex and race; hence the participant's corresponding question indicated that a white male—or a white female, black male, or a black female—would make the final decision on the contract at stake. Both forms of the actual questions are presented in Table II. In the table, wording found only in Form A is in bracketed italics; Form B wording is shown in bracketed capitals. Text not bracketed is common to both forms. Respondents received only one form of each question and the succeeding scale asked that participants choose between the two subordinates described in the introductory situation depicted above. Thereafter, participants had the opportunity to provide open-ended comments if they chose to do so.

Table I. Assumed Bias in Business and Ability to Influence It[a]

Question	Sex			Race			WF vs BM			WM vs BF			Overall		
	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*
1. What proportion of business people have a predisposition that results in discrimination? [1 (all)–7 (none)]		—			—			—			—		3.51^d	1.38	261
2. Business people believe [condition] are ____ capable than [condition] at making important decisions. [1 (*definitely more*)–7 (*definitely less*)]	2.77^d	1.02	79	2.66^d	.96	87	3.54	1.57	39	2.31^d	.94	49	2.76^d	1.15	254
3. Business people believe [condition] are ____ capable than [condition] at impressing clients. [1 (*definitely more*)–7 (*definitely less*)]	3.65^b	1.35	82	2.80^d	1.18	86	3.05^d	1.50	42	2.73^d	1.14	48	3.10^d	1.33	258
4. Business people believe [condition] are ____ capable than [condition] at successfully taking risks. [1 (*definitely more*)–7 (*definitely less*)	2.77^d	1.11	88	3.27^d	1.06	81	4.30	1.38	40	3.00^d	1.35	45	3.21^d	1.29	254
5. Business people believe [condition] are ____ capable than [condition at working with numbers. [1 (*definitely more*)–7 (*definitely less*)]	3.57^d	1.10	81	3.05^d	.98	87	3.51^b	1.52	41	3.02^d	1.10	48	3.28^d	1.16	257
6. Business people believe [condition] are ____ capable than [condition] at working with people. [1 (*definitely more*)–7 (*definitely less*)]	4.31^c	1.18	84	3.12^d	1.07	84	3.32^c	1.20	44	2.94^d	1.20	47	3.51^d	1.28	259
7. Business people believe [condition] are ____ capable than [condition] at making difficult decisions. [1 (*definitely more*)–7 (*definitely less*)	3.20^d	1.34	86	2.93^d	1.20	88	4.08	1.16	39	2.51^d	1.06	47	3.12^d	1.30	260
8. Business people believe [condition] are ____ capable than [condition] at being creative. [1 (*definitely more*)–7 (*definitely less*)]	4.36^c	1.07	86	3.34^d	1.09	87	3.28^c	1.20	43	3.51^c	1.10	49	3.69^d	1.19	265

9. People at the top of organizations are ______ biased against [condition] than people at the bottom. [1 (*much more*)–7 (*much less*)]	3.14^d	1.64	87	3.28^d	1.67	87	3.02^c	1.92	43	3.25^c	1.64	44	3.18^d	1.69	261
10. In working with a client, business people subordinate their own preferences to those of the client. [1 (*always*)–7 (*never*)]		—			—			—			—		2.92^d	1.10	281
11. In working with a client, business people can shape the client's preferences to suit themselves. [1 (*always*)–7 (*never*)]		—			—			—			—		3.96	1.20	285
12. Clients are influenced by their feelings, desires, and emotions. [1 (*completely*)–7 (*not at all*)]		—			—			—			—		3.10^d	1.15	282
13. If people at the top engage in discrimination, there is little that an employee can do besides go along. [1 (*strongly agree*)–7 (*strongly disagree*)]		—			—			—			—		4.48^d	1.89	282
14. If a client is biased against [condition], there is little that someone trying to sell to the client can do besides go along. [1 (*strongly agree*)–7 (*strongly disagree*)]	3.54^c	1.70	87	3.37^d	1.70	93	3.66	1.84	47	3.74	1.66	51	3.54^d	1.71	278
15. In evaluating decision alternatives, business people choose the alternative with the most positive effect on profits. [1 (*always*)–7 (*rarely*)]		—			—			—			—		2.19^d	.90	291

[a]WF, BM, WM, and BF stand, respectively, for white female, black male, white male, and black female. The term *condition* refers to computer assignment of the sex/race conditions used in the earlier comparisons.

[b]$p < .05$ by a two-tailed t test of the difference between the mean and the scale midpoint.

[c]$p < .01$.

[d]$p < .001$.

Table II. Question Sets Evaluating Signaling Hypotheses[a]

Hypothesis	Item
1.	A [*black female*] [WHITE MALE] will make the final contract decision for the client firm. You need to select one of your assistants to accompany you to the negotiating sessions. Which would you select.
2.	A potenital client firm first contacted your organization through a [*black female*] [WHITE MALE] on your sales staff. You need to select one of your assistants to accompany you to the negotiating sessions. Which would you select?
3.	The president of the potential client firm is widely known [*for speaking out against discrimination and has written a book on the importance of not discriminating*] [AS AN EXPERT ON ALL ASPECTS OF BUSINESS MANAGEMENT AND HAS WRITTEN A BOOK ON HOW TO BE AN EFFECTIVE MANAGER]. You need to select one of your assistants to accompany you to the negotiating sessions. Which would you select?

[a]All items were scaled from 1 (*always the* _____) to 7 (*always the* _____); the persons in the blank were changed to reflect the comparison presented in the introductory paragraph. In each case, 1 represents the hypothesized direction of discrimination, while 7 is the opposite. Thus scales were from white male (1) to white female (7), black male to black female, white male to black male, white female to black female, white female to black male, and white male to black female.

Respondents saw only one form of each question; Form A appears in italics, while Form B is capitalized. For Hypotheses 1 and 2, the parenthesized items were changed to reflect the comparison presented in the introductory paragraph; Form A was the person expected to be normatively disadvantaged, while Form B was the member of the comparison predicted to be normatively favored.

The random assignment was repeated separately for each of the three questions, generating 8 possible question-form combinations. Also, there were 6 different sex/race comparisons possible. With a sample size of 293, the 48 possible combinations would be expected to occur an average of 6.1 times. The results conform well to this prediction. Thirty-seven (77%) of the sequences occurred between four and eight times (92% between four and ten times). All 48 sequences were represented. This randomization mechanism promotes more response-to-response independence than, say, random assignment to one of two or four fixed questionnaire forms. In effect, the methodology of this part of the survey is a quasiexperimental projective technique, rather than a standard questionnaire.

In order to minimize the possibility that participants would feel obligated to respond in a discriminatory manner, all hypothesis-oriented questions used 7-point bidirectional scales, with the midpoint being neutral. The socially desirable indication of no discrimination or preference was also the scale midpoint. In addition, each question gave participants the specific alternative to decline to respond. Thus it seems reasonable to conclude that responses deviating from the neutral midpoint represented intended decisions favoring one pole or the other. Finally, the participants were again given the opportunity to erase the record if they did not feel comfortable with it, and were thanked for their participation.

RESULTS

Preconditions 1–3

The first two preconditions predicted that participants would view business people as holding norms generally favoring men and whites. The hypotheses were examined with the survey questions concluding the study. Respondents indicated that they felt a high proportion of business people have a predisposition resulting in discrimination [Mean: 3.51 on a scale from 1 (*all*) to 7 (*none*)]; the mean differed significantly from the scale midpoint [$t(260) = 5.74$, $p < .001$ by a two-tailed test—see Table I]. In subsequent questions, participants were asked to compare the beliefs of business people concerning one Sex × Race condition with another combination for particular traits relevant to business. Any single participant saw only one set of comparisons, such as white female with black female—the same comparison set as was presented in the introductory paragraphs. This allowed responses to be grouped for sex (those comparing a white male with a white female or comparing a black male with a black female), race (white male with a black male and white female with a black female), and Sex × Race (white female with a black male or white male with a black female) effects.

As may be seen in Table I, men were viewed as favored by business people in terms of their capacity to make important decisions, to impress clients, to take risks successfully, to work with numbers, and to make difficult decisions (all $p < .05$ or better by two-tailed t tests of the difference between the mean and the scale midpoint); women were seen as favored for working with people and for creativity ($p < .01$ or better). These results support a highly stereotypic view of management. Respondents felt people at the top of organizations are more biased against females than those at the bottom ($p < .001$).

The race comparisons revealed that whites were seen as favored over blacks on each comparison ($p < .001$)—including the two above on which women were considered preferred. In the Sex × Race comparisons, white females were seen as preferred over black males in five of the eight comparisons ($p < .05$ or better). On each question, white males were consistently viewed as preferred over black females ($p < .01$ or better). Overall, these results can be taken as good support of Preconditions 1 and 2, and a strong indication of the participants' belief that business people hold biased norms. With the exceptions noted, the biases were thought by participants to favor males over females, whites over blacks, white women over black men, and white men over black women.

Here and elsewhere in this study, it should be recognized that participants' beliefs concerning the norms of business do not necessarily reflect actual norms or their own biases; however, perceptions are what influence resultant behavior, irrespective of the veridicality of those perceptions. Thus it is irrelevant to the hypothesized process of rational bias that some studies have shown that top-level managers are actually *less* biased than shop-floor supervisors (cf. Collins & Ganotis, 1974); if the decision maker perceives the situation otherwise, reality does not matter.

Of course, the participants might believe that prejudice exists, but that they have the ability to either change or ignore it, contrary to Precondition 3. Questions intended to tap this possibility found a general belief that business people subordinate their preferences to those of clients [Table I—mean: 2.92 on a scale from 1 (always) to 7 (never)]; the difference between the mean and the scale midpoint was significant [$t(280) = 16.46$, $p < .001$ by a two-tailed test]. Clients in turn were viewed as influenced by their feelings, desires, and emotions ($p < .001$). Other than in the Sex $\times$ Race conditions (ns), participants also agreed that little can be done by someone trying to sell to a client who is biased in a particular way other than go along ($p < .01$ or better). Opinions were mixed as to whether the client's preferences can be shaped by a salesperson (ns); on the other hand, the notion that the employee (as distinguihsed from a salesperson) can do little but go along with employers in discrimination was rejected ($p < .001$). Finally, opinions strongly endorsed the view that business people select the most profitable alternatives ($p < .001$). The overall support for Precondition 3 is mixed; one interpretation might be that the participants feel they can influence situations other than those reflected in the profit of the organization.

Hypotheses 1–3 asserted that the degree of bias in behavior can be influenced situationally through social cues or "signals" to the effect that bias is either unexpected or may perhaps be punished. These hypotheses were tested in an examination of responses to the signaling questions provided in Table II. As described earlier, participants received only one subordinate race/sex pair for comparison, such as white male with white female, and were asked to select one of their subordinates in response to each signaling question. For any particular question, they received only one of the two possible forms (A or B providing differing signals to one another as suggested by the hypothesis—see Table II). This made possible a two-way between-subjects

Table III. Analysis of Variance for Signaling Questions

	All comparisons			
Questions	*df*	*MS*	*F*	w^2
H1: Sex, race of client specified				
Comparison	5	3.07	1.78	
Form	1	148.04	85.82[c]	.23
Form × Comparison	5	5.75	3.33[b]	.01
Residual	241	1.72		
H2: Sex, race of contact in own firm specified				
Comparison	5	1.79	1.29	
Form	1	179.06	129.29[c]	.33
Form × Comparison	5	1.01	<1	
Residual	240	1.38		
H3: Nature of client preferences specified				
Comparison	5	.74	<1	
Form	1	56.68	41.46[c]	.14
Form × Comparison	5	1.44	1.06	
Residual	241	1.37		

[a]H1, H2, and H3 refer respectively to Hypotheses 1-3.
[b]$p < .01$.
[c]$p < .001$.

analysis of variance for each question, examining the effects of the Comparison (the particular combination such as between white male and white female subordinates), the Form (the question form derived from one of the poles of the hypothesis), or the Comparison × Form interaction, on the choice between the two subordinates presented. The comparison variable had six levels (one for each of the sex and race comparisons).

As may be seen in Table III, the main effect for comparison was not significant in any of the three analyses. This means, as might be expected, that there was no overall preference for subordinates in a particular comparison; for example, white males were no more preferred relative to white females across the two forms than were black males relative to black females. By contrast, the main effect for form was highly reliable in each analysis ($p <$ .001), thus supporting Hypotheses 1-3. A Form × Comparison interaction was present only for the hypothesis question asking participants to select a subordinate to accompany themselves to negotiate with a client when the client's contract decision rested with an individual having a sex and race combination matching one of the two subordinates.

Means for these responses appear in Table IV; the interaction for the first hypothesis question is primarily the result of the white male/white female comparison. While across all groups participants favored selecting the subordinate who matched the client decision maker, this was less evident for

Table IV. Mean Responses in Signaling Situations[a]

	Comparison						
	White male white female	Black male black female	White male black male	White Female black female	White Female black male	White male black female	Form mean
H1: Sex, race of client specified							
Form A	3.81 (21)	4.78 (23)	4.88 (24)	4.72 (25)	4.46 (26)	5.00 (14)	4.59 (133)
Form B	3.75 (16)	3.57 (21)	3.25 (16)	2.50 (18)	2.44 (18)	2.69 (29)	3.00 (118)
Mean	3.78 (37)	4.20 (44)	4.22 (40)	3.79 (43)	3.64 (44)	3.44 (43)	3.84 (251)
H2: Sex, race of contact in own firm specified							
Form A	4.67 (15)	4.91 (22)	4.42 (19)	4.50 (22)	4.76 (25)	4.78 (23)	4.68 (126)
Form B	2.65 (20)	3.26 (23)	3.13 (24)	2.56 (18)	3.38 (21)	2.80 (20)	2.98 (126)
Mean	3.51 (35)	4.07 (45)	3.70 (43)	3.63 (40)	4.13 (46)	3.86 (43)	3.83 (252)
H3: Nature of client preferences specified							
Form A	4.13 (16)	4.50 (26)	4.58 (19)	5.00 (25)	4.59 (17)	4.87 (23)	4.64 (126)
Form B	3.75 (20)	4.06 (17)	3.46 (24)	3.59 (17)	3.63 (27)	3.45 (22)	3.64 (127)
Mean	3.92 (36)	4.33 (43)	3.95 (33)	4.43 (42)	4.00 (44)	4.18 (45)	4.14 (253)

[a]Lower means (below 4) indicate a preference for the top subordinate in any comparison in a column; higher means (above 4) indicate a preference for the second subordinate.

the white male/white female comparison. In the latter, white males were favored over white females irrespective of the decision maker's sex. It was of interest that the question for Hypothesis 1 was the only one specifying the sex and race of the client decision maker. In open-ended responses, some female participants explained that they were reluctant to select another woman to accompany themselves to negotiate with a woman, feeling at least one man should be present to provide balance.

The interaction described was not sufficent to nullify the primary effect of form anticipated by Hypotheses 1-3. More explicitly, the signaling conditions did make a significant difference in reaction to the subordinate choice. When led to understand that an important decision is likely to be made by a client of a particular race and sex, or that the prior contact had been made though someone of a particular race and sex, participants reacted by favoring a subordinate matching those characteristics (w^2 = .23 and .33 for the respective questions). When told that the president of the client firm had written against discrimination, the participants favored the subordinates who were stereotypically discriminated against: favoring females rather than males, blacks rather than whites (w^2 = .14). What is perhaps most revealing is that, when told that the client's president had written on effective management, the opposite occurred. . . favoring males over females and whites over blacks. It seems probable that "effective management" is a cue for normative behavior, while writing against discrimination is counternormative; neither form of the question provided cues to the sex or race of the client or contact person.

Although the results reported above seemed robust, it remained possible that male participants answered differently from females or that whites provided different responses than minorities. Hence the analyses were repeated entering the sex and race (white or minority) of participants as additional variables. Neither main effects nor interactions of the new variables reached accepted levels of significance, suggesting that the findings are generalizable across these variables. Two additional analyses were undertaken in order to ensure that the results were neither an artifact of the sample nor a demand effect independent of perceived business norms. If a participant's increasing age or business experience were to diminish the effects reported for the analyses of variance, then the findings would be trivial: rational bias would be limited to those with the least real business experience. In order to examine this possibility, the analyses were repeated with participant age and experience entered as covariates. Neither variable reached significance in the three analyses of variance; further, none of the effects reported in Table III changed reliably.

Finally, if rational bias is an explanation for the results just described, then those individuals who stated a belief in the existence of a prejudiced norm or who felt most powerless to change it should have given more traditionally discriminatory responses to the signaling questions just described.

Table V. Relationship of Signaling Responses with Attribution Survey Questions[a]

	Adjusted R^2		
	Hypothesis question		
Comparison	1	2	3
White male/white female	.53[c]	.75[d]	.21[b]
Black male/black female	.32[b]	.81[d]	.44[c]
White male/black male	.14[b]	.22[b]	.46[d]
White female/black female	.28[b]	.34[c]	.13[b]
White female/black male	.68[d]	.58[d]	.68[d]
White male/black female	.49[d]	.36[b]	.28[b]

[a]Predictors appear in Table I; criteria (hypothesis questions) are given in Table II.
[b]$p < .05$.
[c]$p < .001$.

In order to determine whether this relationship existed, the beliefs concerning business norms were entered as predictors into backward-forward multiple regression analyses. The criteria were the separate results for each of the six subordinate comparison groups on each of the three hypothesis question (see Table V). All 18 of these analyses reached statistical reliability ($p < .05$ or better for each analysis; mean adjusted $R^2 = .43$). Although only a minimum level of bias needs to be attributed to power holders for rational bias theory to operate, these results suggest that the depth of willingness to discriminate could be related to the degree of belief in business prejudice beyond this threshold. Still, it should be recognized that causality could not be determined in this study because attributions of bias to business people were not directly manipulated.

DISCUSSION

This study provides a test of the rational bias theory of managerial behavior in the prediction of sex and race discrimination. The theory predicts that, in the absence of information of the contrary, managers in secondary power positions make discriminating decisions based on beliefs concerning the preferences of those having power over them. Thus, with a norm favoring discrimination against women and blacks, rational bias theory predicts that decisions will favor males and whites. In contrast, if power holders signal counternormative preferences, the personal decisions of lower managers may eliminate or reverse discrimination (assuming that the lower managers are not personally biased).

As we anticipated, management students felt that a general business norm favors discrimination against both women and blacks, and that there is little option if a client prefers discrimination. These are the conditions in which rational bias theory has been proposed to operate (Larwood et al., 1984). In order to determine whether the participants would discriminate under these conditions, the future managers were asked to select one of two subordinates to accompany themselves to hypothetical negotiating sessions with a client. In support of rational bias theory, males and whites were generally preferred to females and blacks when no counternormative signals were given (Table IV); the results were significantly reversed for the counternormative signals of the client being a woman or minority (Hypothesis 1), the initial contact being a woman or minority (Hypothesis 2), and the client writing on the importance of not discriminating (Hypothesis 3).

The finding that counternormative signaling resulted in choice reversal rather than neutrality suggests interesting social implications. The "effective manager" form of Hypothesis 3 resulted in discrimination in one direction, while the call for nondiscrimination in the other form of Hypothesis 3 reversed the direction of discrimination. Perhaps "not discriminating" at this point in U.S. history really requires an active effort to compensate by balancing opportunities for each sex and race rather than by simply ignoring gender or color. Counternormative clients, contacts, or actions may provide opportunities to assign personnel who would be less acceptable in other circumstances; alternatively, it might be expected that counternormative individuals have biases as strong as those of others, but in opposing directions.

The discrimination shown on the hypothesis questions was correlated positively with the level of discrimination believed by participants to exist in business. These results are consistent with rational bias theory. Nonetheless, belief in discriminatory norms was surveyed rather than manipulated in this study. Thus it remains possible that the relationship is noncausal or even that discrimination in subordinate selection arose from an unrelated cause and resulted in the later attribution of biased norms to business. Nonetheless, these alternative explanations seem unlikely in view of the widespread recognition that discrimination does occur in the workplace. Weight is added to our argument by the recent study of Katz (1987) experimentally altering organizational climate. His results showed that women were more likely to be hired for a manufacturing job at the firm depicted in Katz's survey booklet when the firm was depicted as egalitarian than when it was not.

Two other design shortcomings potentially limit the applicability of this study. We studied management students rather than managers; it might be argued that the students have not experienced either the true norms of business or the manner in which managers would react to those norms. It seems unlikely that students intent on becoming managers would misinterpret managers themselves (cf. Insko, Nacoste, & Moe, 1983); moreover, 94.5% of our participants had work experience. In fact, we found that neither age nor business experience were statistically related to the responses reported here.

A question might also be raised concerning our use of intentional ("Which would you select?") rather than behavioral data. Intention is the best and most immediate predictor of behavior (Fishbein & Ajzen, 1975) but an observation of behavior would be preferable. Nonetheless, it is exceptionally difficult to interpret the data from a study of behavior that is widely understood to be illegal and unethical, and we know of no field experiments examining ongoing managerial discrimination subsequent to the selection process. Of interest, Olian (1986) concluded in her review of laboratory and field studies (both survey and experimental) concerning the selection process that field studies were more likely than laboratory research to find sex discrimination, with women almost inevitably disadvantaged relative to men; similarly, her review of racial discrimination found that it was unlikely to be uncovered in the laboratory but frequently encountered in the field (p. 26). Thus it seems likely that the present results provide a conservative analogue to actual organizational discrimination (cf. Campbell, 1986).

If it is accepted, the rational bias concept of discrimination has direct implications for social change on at least two levels. At the broadest level, the theory suggests that treatment of discrimination requires unusual effort—an action that is unexpected or counternormative. We suspect that the mere statement that an organization is an "affirmative action/equal opportunity employer" is now so usual as to offer no counternormative information. Similarly, bureaucratic but unenthusiastic enforcement of affirmative action may actually provide a covert signal that discrimination is still the informal expectation (Chacko, 1982; Northcraft & Martin, 1982). Appointing women and minorities to key positions, placing them in boundary-spanning positions in which others must work with them, and taking unusual measures to set out a credible preference for equal opportunity appear three potentially important supplements to formal affirmative action programs and standard nondiscrimination statements.

On a more narrow focus, the present results give some reason for concern. They illuminate some of the reasons for continued discrimination despite a substantial body of regulation against it. For example, it may be difficult for a manager who would prefer to behave in an evenhanded manner to react without bias when others superior to that manager are believed biased. The evenhanded manager is placed in the position of countering well-established norms, and is thereby spotlighted and held responsible if the woman or minority does not work out well. In contrast, a manager who decides to discriminate is behaving normatively and is thus exposed only to the usual levels of scrutiny. Sending a woman or minority to deal with a client who is thought to be biased may be particularly risky since substantially more may be at stake than the performance of one person. One of the authors recalls the case of a major defense contractor who found that some Department of Defense procurement officers categorically refused to meet with a woman representative to discuss a sizable contract; the firm felt forced to team the woman with a male but ultimately reassigned her.

One might be tempted to assume either that rational bias will drop out as social attitudes toward women and minorities become more egalitarian, or at least that they will change as whites and males become accustomed to working with (and sometimes for) those different from themselves. Slow but promising attitude change has been tracked in such traditional organizational settings as the U.S. military academies subsequent to their mandated sexual integration (Cheatham, 1984; Larwood, Glasser, & McDonald, 1980; Stevens & Gardner, 1987). Nonetheless, we expect that this form of discrimination will be with us for a substantial period yet: rational bias depends on perceptions of the views of others; as long as it is *thought* that those holding power prefer discrimination, many managers will continue to engage in it. Perhaps this reflects a disadvantage to the less rigid, more informal, private business sector.

Finally, we feel it is important that additional research center on racially based as well as on sexual discrimination. The present study found that race and sex discrimination were both important predictors of personnel selection in particular signaling situations, and that participants believed social norms support both types of discrimination. Still, there has been relatively little examination of race discrimination in the literature. Although it might be assumed that theories and results applying to sex discrimination likewise apply to other forms of discrimination, this supposition is largely untested. The situation of minority women is particularly poorly studied (Nkomo, in press). As a consequence, our progress in understanding discrimination remains limited.

REFERENCES

Barnhill-Hays, Inc. *Employer attitudes toward affirmative action.* Milwaukee, WI: Barnhill-Hayes, 1979.

Baskett, G. D. Interview decisions as determined by competency and attitude similarity. *Journal of Applied Psychology,* 1973, *57,* 343-345.

Brown, H. A., & Ford, D. L., Jr. An exploratory analysis of discrimination in the employment of black MBA graduates. *Journal of Applied Psychology,* 1977, *62,* 50-56.

Campbell, J. P. Labs, fields, and straw issues. In E. A. Locke (Ed.), *Generalizing from laboratory to field settings.* Boston: Lexington Books, 1986.

Campbell, J. P., & Pritchard, R. D. Motivation theory in industrial and organizational psychology. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology.* Chicago, Rand McNally, 1976.

Chacko, T. I. Women and equal employment opportunity: Some unintended effects. *Journal of Applied Psychology,* 1982, *67,* 119-123.

Cheatham, H. E. Integration of women into the U.S. military. *Sex Roles,* 1984, *11,* 141-153.

Clinard, M. B. *Corporate ethics and crime.* Beverly Hills, CA: Sage, 1983.

Collins, J. W., & Ganotis, C. G. Managerial attitudes toward corporate social responsibility. In S. P. Sethi (Ed.), *The unstable ground: Corporate social policy in a dynamic society.* Los Angeles: Melville, 1974.

DeCotiis, T. A., & LeLouarn, J.-Y. A predictive study of voting behavior in a representative election using union instrumentality and work perceptions. *Organizational Behavior and Human Performance,* 1981, *27,* 103-118.

Dexter, C. R. Organizational determinants of occupational discrimination: Women managers in business. *Academy of Management Proceedings,* 1979, *386-390.*

Dexter, C. R. Women and the exercise of power in organizations: From ascribed to achieved status. In L. Larwood, A. H. Stromberg, & B. A. Gutek (Eds.), *Women and work* (Vol. 1). Beverly Hills, CA: Sage, 1985.

Dovidio, J. F., & Gaertner, S. L. The effects of race, status and ability on helping behavior. *Social Psychology Quarterly,* 1981, *44,* 192-203.

England, P. Socioeconomic explanations of job discrimination. In H. Remick (Ed.), *Comparable worth and wage discrimination.* Philadelphia: Temple University Press, 1984.

Firth, M. Racial discrimination in the British labor market. *Industrial and Labor Relations Review,* 1981, *34,* 265-272.

Fishbein, M., & Ajzen, I. *Belief, attitude, intention and behavior.* Reading, MA: Addison-Wesley, 1975.

Gealy, J., Larwood, L., & Elliott, M. P. Where sex counts: Effects of consultant and client gender in management consulting. *Group and Organization Studies,* 1979, *4,* 201-211.

Hitt, M. A., Zikmund, W. G., & Pickens, B. A. Discrimination in industrial employment: An investigation of race and sex bias among professionals. *Work and Occupations,* 1982, *9,* 217-231.

Insko, C. A., Nacoste, R. W., & Moe, J. L. Belief congruence and racial discrimination: Review of the evidence and critical evaluation. *European Journal of Social Psychology,* 1983, *13,* 153-174.

Jones, E. E., & Davis, K. E. From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2). New York: Academic Press, 1965.

Jones, E. E., McGillis, D. Correspondent inferences and the attribution cube: A comparative reappraisal. In J. H. Harvey, W. J. Ikes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 1). Hillsdale, NJ: Erlbaum, 1976.

Katz, D. Sex discrimination in hiring: The influence of organizational climate and need for approval on decision making behavior. *Psychology of Women Quarterly,* 1987, *11,* 11-20.

Kraiger, K., & Ford, J. K. A meta-analysis of ratee race effects in performance ratings. *Journal of Applied Psychology,* 1985, *70,* 56-65.

Larwood, L., & Gattiker, U. E. A comparison of the career paths used by successful men and women. In B. A. Gutek & L. Larwood (Eds.), *Women's career development.* Beverly Hills, CA: Sage, 1987.

Larwood, L., & Glasser, E., & McDonald, R. Attitudes of male and female cadets toward military sex integration. *Sex Roles,* 1980, *6,* 381-390.

Larwood, L., Gutek, B., & Gattiker, U. E. Perspectives on institutional discrimination and resistance to change. *Group and Organization Studies,* 1984, *9,* 333-352.

Larwood, L., Szwajkowski, E., & Rose S. When discrimination makes "sense". The rational bias theory of discrimination. B. A. Gutek, A. H. Stromberg, & L. Larwood (Eds.), *Women and work* (Vol. 3). Beverly Hills, CA: Sage, in press.

Matsui, T., Kagawa, M., Nagamatsu, J., & Ohtsuka, Y. Valdiity of expectancy theory as a within-person behavioral choice model for sales activities. *Journal of Applied Psychology,* 1977, *62,* 764-767.

Nkomo, S. M. Race and sex: The forgotten case of the black female manager. In S. Rose & L. Larwood (Eds.), *Women's careers: Pathways and pitfalls.* New York: Prager, in press.

Northcraft, G. B., & Martin, J. Double jeopardy: Resistance to affirmative action from potential beneficiaries. In B. A. Gutek (Ed.), *Sex role stereotyping and affirmative action policy*. Los Angeles: Institute of Industrial Relations, University of Califronia, 1982.

Olian, J. D. Staffing. In E. A. Locke (Ed.), *Generalizing from laboratory to field settings*. Boston: Lexington Books, 1986.

Parcel, T. L. Race, regional labor markets and earnings. *American Sociological Review*, 1979, *44*, 262-279.

Porter, L. W., & Roberts, K. H. Communication in organizations. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand McNally, 1976.

Quinn, R. P., Tabor, J. M., & Gordon, L. K. *The decision to discriminate*. Ann Arbor, MI: Institute for Social Research, 1968.

Rosenbaum, J. E. *Career mobility in a corporate hierarchy*. Orlando, FL: Academic Press, 1984.

Ross, M., & Fletcher, G. J. O. Attribution in social perception. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed.) New York: Random House, 1985.

Schmidt, F. L., & Hunter, J. E. Employment testing: Old theories and new research findings. *American Psychologist*, 1981, *36*, 1128-1137.

Sonnenfeld, J. Executive apologies for price-fixing: Role biased perceptions of causality. *Academy of Management Journal*, 1981, *24*, 192-198.

Stevens, G., & Gardner, S. But can she command a ship? Acceptance of women by peers at the Coast Guard Academy. *Sex Roles*, 1987, *16*, 181-188.

Szwajkowski, E., & Larwood, L. *Determinants of organizational misconduct*. Paper presented at the annual meeting of the Academy of Management, San Diego, CA. 1985.

Szwajkowski, E., & Larwood, L. *Discrimination resulting from manager*-client relationships: A test of the rational bias theory of managerial discrimination. Paper presented at the annual meeting of the Academy of Management, Chicago, 1986.

U.S. Department of Labor. The United Nations decade for women, 1976-1985: employment in the United States. Author: Wasington, D.C., 1985.

U.S. Department of Labor *Employment and earnings*. Author: Washington, D.C., January 1987.

Vroom, V. H. *Work and motivation*. New York: Wiley, 1964.

Webber, R. A. Perceptions of interactions between superiors and subordinates. *Human Relations*, 1970, *23*, 235-248.