Giving Credit Where Credit Is Due: A Case of No Sex Bias in Attribution¹

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This study examines the effects of informational cues on the attribution of success in a masculine task. Israeli managers (subjects) first evaluated the performance of a fictitious male/female manager and then attributed a cause to his/her success in attaining the managerial position. As predicted, performance evaluation affected the attribution and manager sex did not. An unexpected association between leadership style and attribution was found. Implications of these findings for female managers and for further research are considered.

One of the difficulties facing women who pursue a career in management is that, until recently, the field was virtually an exclusively male domain. The absence of women supported and reinforced the belief and expectation that women are not able to meet the requirements of the managerial role. The appointment of a woman to a managerial position, however, is no assurance that she will be expected to perform as well as a man, that her ability will be recognized, or that she will be rewarded equally for equivalent performance. These outcomes depend on the attributions made for her appointment.

Attribution theory, influenced by the pioneering ideas of Heider (1958), holds that causal explanations for an actor's performance exert a powerful impact on the nature of the subsequent observer-actor interaction (Weiner, Freize, Kukla, Reed, Rest, & Rosenbaum, 1971) and attributional processes mediate discriminatory reward allocation (Heilman & Guzzo, 1978). Eskilson and Wiley (1976), for example, found that the basis of appointment (chance vs. personal skill) to a leadership position affected how others responded to the behavior of a female incumbent. Terborg and Ilgen (1975) found that a woman whose performance was explained by luck was assigned more routine tasks than was a woman whose performance was attributed to her ability. The

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study of sex bias in attributions, therefore, can contribute to our understanding of gender differences in career achievement.

Summarizing her research on attribution, as well as that of others, Deaux (1982) has stated that "in general, this work suggests that success by a male is more often attributed to ability than is equivalent success by a female." Success by a female, on the other hand, is more likely to be attributed to unstable factors, such as effort or luck (Feather & Simon, 1975; Terborg & Ilgen, 1975). These sex differences have been found more consistently when the task had a masculine rather than a feminine label (Cash, Gillen, & Burns, 1977; Deaux & Emswiller, 1974; Taynor & Deaux, 1975). Attribution theorists explain these findings in terms of the fit between expectations and outcomes (Deaux, 1982). Expected outcomes are more likely to be attributed to stable factors; unexpected outcomes to unstable factors. Since women are not expected to become managers, their appointment, according to this theory, would be more likely to be attributed to unstable causes (such as effort) or to external causes (such as luck) while that of men more to internal stable causes (such as ability).

The dominant thrust of current research on sex bias in judgments is that discrimination against women is primarily a cognitive and not an affective phenomenon. It reflects what Kiesler (1975) has termed "acturial prejudice," which is based on available past and present information about a group that causes individuals to expect inferior performance from persons belonging to that group, rather than on any deep-seated hostility against the members of the group. The findings from a number of studies of sex bias in performance valuation support this contention. These findings indicate that when relevant information about the female's competence is given, it replaces stereotypes as the basis for performance judgments and the effects of sex bias are eliminated. (For a review of this literature, see Nieva and Gutek, 1980.) The availability of information reduces the required level of inference in the situation (Nieva & Gutek, 1980) so that expectations which inform the evaluation are generated by the information about the specific woman rather than by stereotypical beliefs about women in general.

In previous studies in which sex differences in attributions for success on a masculine task were found, respondents were informed by the researcher that the female actor had been successful in the task but they were not provided with supporting evidence for her competence or for the investments she had made in order to achieve success. In the present study, such supporting evidence was manipulated by having subjects first rate the effectiveness of the manager along a number of dimensions on the basis of a description of his/her behavior on the job. The present design appears to be a more valid simulation of real life situations in which managers usually make their own evaluations on the basis of some evidence. Upon completing their evaluation, subjects

were requested to attribute a cause for the manager's appointment to his/her position (success condition). We hypothesized that no difference in attributions would be found between the male and female manager.

Our hypothesis was based on the following logic. Attribution theory assumes that we have an implicit theory of human behavior which informs expectations (Argyris, 1982) which in turn influence attribution. In the research situation described above, the respondent is required to choose between two competing implicit theories. One theory holds that women are less endowed than men with the necessary characteristics to be effective managers (Schein, 1973, 1975) and are consequently not expected to be appointed to a managerial position. Having to explain how a manager got his/her job, respondents are more likely to attribute this selection to unstable causes for the female manager and to stable causes for the male manager. The other theory holds that organizations advance those who are competent and those who perform effectively may be expected to have been appointed for their ability. It is this belief in the rationality of the process that determines allocation of organizational rewards and which legitimates organizational authority and inequality in outcomes (Pfeffer, 1981). According to this theory, having to explain how a manager got her/his job, respondents are more likely to attribute stable causes to those they themselves have already judged to be effective, and unstable causes to those they judged to be less effective, regardless of the sex of the manager.

We hypothesized that the evaluation of managerial performance heightens the salience of the cognitive patterns described in the second theory (Charters & Newcomb, 1958), that the effects of sex related expectations on attribution are mediated by performance evaluation, and that once the effect of performance evaluation on attribution is removed, the remaining variance in attribution explained by the other two independent variables (subject sex and manager sex) would be negligible.

Previous findings regarding the effects of the sex of the subject on attribution are inconsistent. Deaux (1976) and Stevens and DeNisi (1980) found that males and females attribute success and failure in like fashion. Feldman-Summers and Kiesler (1974) found that when a female physician was described as successful, male subjects perceived her to be less able than an identical male physician, a difference not found among female subjects. In view of these inconsistencies, and since we lack a theory from which to derive our hypothesis, we made no prediction regarding the effects of subject sex on attribution

Method

Subjects

This study was part of a larger research of 1,020 persons (920 men and 100 women) who participated in 44 different management training courses

that took place in various parts of Israel. Over 92% of the respondents were currently employed as managers; 62 were junior managers, 360 middle managers, and 513 senior managers. A post facto comparison of the distribution of the characteristics of the sample with those of the population of managers in Israel shows the sample to be representative in its sex, ethnic, and educational composition but somewhat younger.

Measures

The instruments used were those developed by Bartol and Butterfield (1976). They consisted of four short stories, each reflecting one of four leadership styles—initiating structure, production emphasis, consideration, and tolerance for freedom (Stogdill, 1963).

A. Initiating structure: the personnel department

When the personnel director of "Igudim," a growing manufacturing concern, retired last year, Leor (Leora) Manor, was brought in from another company to head the personnel department. He (She) came with excellent recommendations and was the unanimous choice of those interviewing the candidates. His (Her) charge was to streamline and update the personnel department, which at this time consisted of five professional workers, two secretaries, and two clerical assistants. Although one of the professional workers had wanted the personnel director position, top management chose to bring in someone from the outside.

Shortly after his (her) arrival, Manor called a meeting of the professional staff to explain the general direction in which he (she) felt the personnel department should move. At the meeting, he (she) also outlined briefly what he (she) expected from each staff member in the immediate future.

Within a few weeks, Manor reorganized the department and provided each member of the staff with a description of the functions of each position in the department. Soon thereafter, he (she) formulated specific department goals for the coming year and assigned various projects to each staff member. He (She) then held individual meetings with each of the staff members to explain what their projects entailed and to give directions on how they should proceed. He (She) was careful to specify the basis on which their work would be evaluated. "I want all the members of my staff to know exactly what is expected of them," he (she) told each of them.

Once he (she) had activated the department in the direction he (she) wished, Manor himself (herself) began to develop standardized procedures for the department in order to eliminate some of the procedural confusion which had existed under the previous director. He (she) also instituted a newsletter to keep the various administrators in the company informed of various changes.

B. Production emphasis: information services

After 3 years as a systems analyst for "Information Services," a data processing consulting firm, Aviva (Aviv) Kedar, was placed in charge of a systems unit consisting of three senior systems analysts, two junior systems analysts, and six computer programmers. The unit specialized in the design and implementation of billing systems of a variety of business operations and was one of four systems units in the company.

Since it was her (his) first managerial position, Kedar was anxious to do an outstanding job. She (He) particularly wanted to have a good record on the number of billing systems completed and installed at customer locations during the fiscal year since she (he) felt this was a major criterion on which her (his) unit would be evaluated.

Soon Kedar began coming in an hour early each morning and usually left an hour or two after quitting with her (his) briefcase full of material to be worked on at home. She (He) frequently went to the office on Fridays (the company worked five days a week)³ and encouraged her (his) staff to put in a few hours on Fridays even though they were not eligible for overtime pay. In fact, she (he) often scheduled meetings with individual staff members for Friday morning, noting that the number of interruptions due to telephone calls and other factors was likely to be minimal. Staff meetings were held each Sunday morning to evaluate the progress of various systems designs and computer programs. At that time staff members would discuss the status of their various projects and outline any foreseeable problems.

When new projects were assigned to the unit, Kedar would allow her (his) staff to set completion dates for the projects, but urged them to choose the earliest dates possible. She (He) had a chart made which depicted where each project was according to deadline dates and often provided data indicating how the other three units were doing. Kedar urged her (his) staff to outpace the other units and come up with the best record for the year. "We can do it," she (he) would often say to them.

C. Consideration: sales department

Aliza Meron of the sales department was getting married. The sales boss, Aviv (Aviva) Kedar, liked to have a small office get-together to acknowledge such events usually held in conjunction with the bi-weekly staff meetings, since staff members were traveling in their sales territories much of the time.

Kedar also showed the staff their office space plans in the new company building going up about a mile away. The sales office was one of the units

³Israel has a 6-work week and Sunday is a regular workday. Firms on a 5-day work week operate from Sunday to Thursday.

chosen to make the move after Kedar had fought hard to get his (her) staff into the plush new quarters. Now he (she) had put the final touches on the planned layout of the new office and had ordered the new furniture. He (She) told the group they had come up with a good layout and he (she) really liked the decor they had chosen. He (she) had been able to use the prior suggestions of the staff members and had put many, many hours into the plans. Nevertheless, he (she) told the sales staff that he (she) would alter the final plans if they really wanted him (her) to. "Sales is hard work and I want all of you to be as comfortable as possible in the office," he (she) told them. "Besides, a good looking office will make a favorable impression on the clients."

A little later, Nurit Levy went over to Kedar and said, "I won't be able to make the special meeting on Friday because I have an appointment with the dentist. Do you suppose we could reschedule it?" Kedar replied immediately, "No problem. If you can make it first thing Monday morning, I'll see about setting it up with the others."

D. Tolerance for freedom: Investors Inc.

The southern branch of "Investors Inc." was situated in Beer Sheva. It employed seven people under the management of Leora (Leor) Manor.

Manor spent a great deal of time on the telephone, in meetings with representatives from the head office in Tel Aviv, or with clients. She (He) expected her (his) professional staff to handle their own client accounts and to stay on top of the day-to-day problems which occurred in their particular areas. If any special problems arose, she (he) was available at their request for discussion.

The office opened at 7:30 in the morning, but Manor usually arrived just prior to the opening of the stock exchange. During the day, she (he) read the economic reports and analyses prepared by her (his) staff and reviewed the business newspapers. To strengthen her (his) ties with her (his) employees, Manor introduced an "open-door" policy and occasionally staff members came in to ask a question or discuss a special problem. The general atmosphere was relaxed and informal although there was often a high level of activity in the office.

From time to time, Manor met with an important client for lunch or dinner. Once or twice a week she (he) would leave home early to stop by potential new clients on her (his) way to the office.

Each story was prepared in four versions: One had a female manager with a Hebrew name. One had a male manager with a Hebrew name. The other two versions reflected the interests of the larger study in ethnic as well as sex effects and portrayed males with "ethnic names." The four versions were otherwise identical. Only results for the versions with the male and female with Hebrew names are reported in this article. Hebrew grammar has no neuter noun or verb forms and consequently heightens the salience of the sex identity of the actors.

Independent Variables

The independent variables were sex of subject, sex of manager, and performance evaluation. Each story was followed by a set of five questions used by Bartol and Butterfield (1976) to evaluate the manager on a 7-point scale: (1) How productive is this organization now? (2) How satisfied do you think the employees are under this manager? (3) How do you think this manager's boss would evaluate his/her behavior? (4) How would you like to work for this manager? (5) All in all, how effective do you think this manager is? An index of performance evaluation for each leadership style was constructed from the combined average score on the five questions. The reliability of each index was estimated using Cronbach's coefficient alpha. The reliability coefficients ranged between .89 and .91.

Dependent Variable

Attribution: After each story, following the performance evaluation questions, the respondents were asked to give their opinion concerning which of the following four factors had the greatest influence on the appointment of the manager in the story of her/his position: ability, luck, effort on the job, or pull.

The term "pull" was used in place of the usual category "easy job" because the career of a manager is implausibly related to an easy task. Furthermore, in Israel, influential connections are widely believed to influence access to desirable jobs. The connection between pull and ease of task has also been noted by Feldman-Summers and Kiesler (1974). They found that when a fictitious physician was portrayed as having a father who is a physician the difficulty of the task was perceived as more responsible for the success of the female physician than it was for the male physician.

The decision to operationalize the dependent variable as a forced choice question rather than as a rating of four separate dimensions was prompted by Deaux and Emswiller (1974) who noted that:

In a pilot study...four separate dimensions were used for attributional responses of ability, effort, task difficulty and luck...However, on none of these four dimensions did the subjects show a significant difference by condition, and a rank ordering of the importance of the four factors was identical across conditions. These preliminary findings suggested that in some instances the differences in evaluation of male and female stimulus persons may be fairly subtle in nature and that a socially desirable ranking with ability always predominating over luck prevails unless the subject is forced to make a choice on a single dimension (p. 82).

In the present study, attribution was analyzed as a trichotomous variable with ability (stable attribution) as one value, effort (unstable internal attribution) as a second, and luck and pull (unstable external attributions) as a third value.

Procedure

Each respondent received four stories, one for each leadership style. The name of the manager in each of the four stories reflected one of the four sex/ethnic versions described above. The order of the stories (styles) and order of the versions (sex/ethnic identity) were randomized so that there were 16 versions of the full questionnaire. The present analysis is based on stories with the male and female with Hebrew names, and excludes the ethnic dimension.

With the cooperation of the sponsoring organization of the respective management program, we contacted the lecturer in a specific management course and requested permission to distribute questionnaires to the participants during class hours. One of the researchers personally appeared before the students and explained that the purpose of the study was to examine preferences of Israeli managers for various leadership styles. No mention was made of our interest in the sex variable. This explanation was repeated in a cover letter, written on the stationery of the Faculty of Management of Tel Aviv University, and distributed with the questionnaire. Questionnaires were filled out on the spot and collected.

Results

The data were analyzed separately for each of the four leadership styles. The distribution of responses among the four categories of attribution by sex of manager is presented in Table 1. Two interesting patterns may be observed. First, within each leadership style there is a striking similarity in the distribution of attribution categories for the male and the female managers, and none of the sex of manager differences is significant. The greatest single sex difference is in the consideration style where success is attributed to ability by 35% of the subjects in the case of the male manager and by 28% of the subjects in the case of the female manager. The direction of this difference is in contrast to what could be expected on the basis of the previously found positive effects of sex-role congruence on attribution (Nieva & Gutek, 1981, p. 76). Although consideration is generally associated more with female than with male behavior, the female manager using this style received a smaller proportion of ability attributions than did the male manager. Second, there is a striking difference in the distribution of the attribution categories between leadership styles. Initiating structure received the highest and production

Table 1

Attribution by Sex of Manager and Leadership Style

	Attribution					
Leadership style	Ability	Effort	Luck	Pull		
Initiating structure						
Male manager	72% (314)	17% (76)	5% (22)	6% (25)		
Female manager	77% (111)	18% (26)	2% (3)	3% (4)		
Production emphasis						
Male manager	20% (46)	77% (181)	2% (5)	1% (2)		
Female manager	15% (36)	79% (188)	5% (2)	1% (3)		
Consideration						
Male manager	35% (105)	25% (77)	23% (69)	17% (50)		
Female manager	28% (42)	29% (42)	27% (40)	15% (24)		
Tolerance for freedom						
Male manager	55% (116)	11% (23)	17% (35)	17% (36)		
Female manager	56% (120)	14% (30)	18% (39)	12% (24)		

Note. Each row totals 100%. The numbers in parentheses are frequencies.

emphasis the lowest proportion of stable attribution (ability = 73% and 17%, respectively). Production emphasis received the highest and consideration the lowest proportion of internal attributions (ability and effort = 96% and 59%, respectively).

For each leadership style, a two-stage stepwise regression of attribution was computed to test for both main effects and first order interaction effects. The three main predictors performance evaluation, sex of manager, and sex of subject were entered first followed by the interaction predictors sex of manager X performance evaluation, sex of respondent X performance evaluation, and sex of respondent X sex of manager.

Potential correlations between performance evaluation and sex could pose the threat of multicolinearity between predictors when regressing attribution. Bivariate correlations between both sex variables (manager and subject) and performance evaluation were computed separately for each leadership style. These correlations ranged between .02 and .08 and none was significant. Thus, multicolinearity among these predictors did not distort the regression analyses.

As hypothesized, the sex of the manager was not a significant predictor

of attribution. The regression results in Table 2 show that for each of the four leadership styles, performance evaluation was a significant and substantial predictor of attribution (β = .45, .30, .63, .57, respectively, all p < 1). For three of the four styles, performance was the sole significant predictor. Whereas the F to enter for performance is highly significant for all four leadership styles, the F values for most of the predictors involving sex are less than one. In

Table 2

Regression of Attribution

Leadership style	Variable	F to enter	R^2	$\triangle R^2$	r
Initiating	Performance (A)	140.96**	.20	.198	.44
structure	Subject sex (B)	.07	.20	.000	.03
(n = 572)	Manager sex (C)	.95	.20	.001	.07
	$A \times B$.32	.20	.000	.32
	$\mathbf{B} \times \mathbf{C}$	1.56	.20	.002	.08
	$\mathbf{A} \times \mathbf{C}$	2.12	.20	.003	.29
Production	Performance (A)	44.17*	.09	.089	.30
emphasis	Subject sex (B)	.13	.09	.000	.01
(n = 453)	Manager sex (C)	2.00	.09	.004	.09
	$A \times B$.80	.10	.002	.19
	$\mathbf{B} \times \mathbf{C}$.88	.10	.002	.07
	$A \times C$	4.02*	.10	.008	.11
Consideration (n = 445)	Performance (A)	292.13**	.40	.397	.63
	Subject sex (B)	.02	.40	.000	.03
	Manager sex (C)	.92	.40	.001	.05
	$A \times B$	_	_	_	_
	$B \times C$.07	.40	.000	.01
	$A \times C$.58	.40	.000	.36
Tolerance for	Performance (A)	201.67**	.33	.327	.57
freedom	Subject sex (B)	.32	.33	.000	.01
(n = 418)	Manager sex (C)	.89	.33	.001	.03
	$\mathbf{A} \times \mathbf{B}$.27	.33	.000	.34
	$\mathbf{B} \times \mathbf{C}$.18	.33	.000	.01
	$\mathbf{A} \times \mathbf{C}$.06	.33	.000	.33

^{*}p < .05. **p < .001.

production emphasis, the F for the interaction between performance evaluation and manager sex, was the only other significant predictor. However, the ΔR^2 column shows that, once the main effect of performance is in the equation, all the predictors involving sex combined fail to increase explained variance by much more than a single percentage point, even for production emphasis. Therefore, the regression results show clearly and consistently that performance did influence attribution substantially, whereas sex did not, the single marginally significant interaction notwithstanding.

The amount of variance in attribution explained by performance evaluation varied with the leadership style from a low of 9% in production emphasis to a high of 40% in consideration. The small proportion of variance accounted for in the production emphasis style, and to a lesser extent in the initiating structure style, may be explained in part by the small amount of variance in the dependent variable (see Table 1) which shrinks the maximum explainable variance (for the formula to measure the shrinkage, see Cohen & Cohen, 1975, p. 36).

Discussion

Although Nieva and Gutek (1980, p. 273) observed in their review that "research into the perceived causes of performance show fairly consistent bias in favor of men," our study did not find sex bias in attribution for success in a masculine task, namely, getting appointed to the position of manager. Although the attribution selected by respondents to explain this success varied with the leadership style, the pattern within each style was the same for the male and the female manager (see Table 1). Where within style differences in attribution between the male and the female manager were found, these were not significant and the pattern or direction of these differences was not consistent across the four styles.

We suggest that the information provided in the vignette and the requirement that respondents first evaluate the manager's performance based on information about his/her behavior reduced the level of inference demanded and created a "commitment" to perceiving the manager in terms of performance rather than of status. We use the term commitment in the way defined by Pfeffer (1981, p. 290) as involving "the binding of an individual to a decision, so that consistent beliefs develop and similar decisions are taken in the future." Once an effectiveness rating was selected, it then informed the respondent's expectations regarding the likely causes for the manager's appointment and became the salient criterion for selecting the attribution to explain that appointment. In previous studies in which performance evaluation was followed by attribution, the performance level of the stimulus person was predetermined by the experimenter and was either reported to the subject (Taynor & Deaux,

1975) or noted by the subject who was required to indicate the number of successful replies made by the stimulus person (Deaux & Emswiller, 1974). In both cases, the subject was not required to use discretion in judging the performance level achieved. These previous designs did not stimulate a commitment to viewing the stimulus person as having a certain level of performance achievement, as we suggest it did in the present study in which performance evaluation mediated the effects of sex related expectations on attribution. Once the effects of performance evaluation as a covariate were removed, no remaining variance was explained. This conclusion can be tested further by manipulating the order of the variables—that is, by having half the subjects evaluate performance prior to making attributions and half making attributions without evaluating performance.

The unexpected differences in attribution patterns across the four leadership styles suggest that respondents were working with an implicit theory (Eden & Leviatan, 1975) about the relationship between leadership style and attribution for success. Initiating structure was highly skewed in the direction of ability, production emphasis in the direction of effort. Consideration received the highest proportion of external attributions, especially luck, which suggests that this is not a highly regarded style among Israeli managers, and tolerance for freedom the lowest proportion of attributions of effort.

If attributions influence consequent rewards (Gergen & Gergen, 1981, p. 63), and attributions of ability are more likely to lead to organizatonal promotions than are other attributions (Heilman & Guzzo, 1978), then the practical implication of the present study for women is that they adopt that managerial style which those who control promotions associate with ability. What that style is appears to vary with national culture (Evan, 1975; Inzerilli, 1972), with organizational culture (O'Toole, 1979; Smircich, 1983) and perhaps even with level in the hierarchy. In the present study, initiating structure appears to be the style most promising for organizational rewards. In this style, a larger proportion of subjects made ability attributions to both the female and the male manager. We interpret this as reflecting the permission that Israeli culture gives to women in leadership roles to adopt context-appropriate, in contrast to sex-role congruent, behaviors. A recent study by Eagley and Wood (1982) likewise found that when a woman's job title was given, it, rather than gender, formed the basis for evaluating the extent of her influence.

The findings of the present study support the contention that sex bias in acknowledgement of ability is responsive to informational and other cues which contradict traditional stereotypes. Once women get a foothold into management, they are likely to get equal recognition for equivalent performance. This finding calls our attention to the perhaps obvious, but none-theless important, fact that recognition of competence is only one of the determinants of upward mobility to the ranks of higher level management. Other,

nonperformance variables such as sponsorship, coalitions, visibility, and social influence (Epstein, 1970; Kanter, 1977; Lips, 1981), affect promotion decisions and contribute to the persistence of inequalities in the achievements of men and women in organizations. Consequently, a woman may be appointed to a managerial position and receive equal recognition for her competence, but may be less able than a man to meet the other social requirements for moving up. It is to these requirements that future research must look for answers to the question: Why so few women in top management?

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