Social Learning Theory as a Foundation for Examining Sex Bias in Evaluation of Coaches

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Sex bias in attitudes toward male and female basketball coaches was examined within a context of social learning theory to determine if the precepts of social learning theory help clarify exactly when and why differential attitudes toward males and females occur. More specifically, would having a male or female coach role model and participating on a winning or losing team mediate sex bias previously found when female athletes evaluate hypothetical coaches who vary in sex and status (defined by won/loss record and coaching honors)? In addition to evaluating written coaching philosophy statements from a hypothetical male and female coach with a successful or unsuccessful professional status, the subjects (N=80) were forced to choose which coach they would prefer to have as their own. Attitudes were mediated by both the sex of the athlete’s own coach and successfulness of the athlete’s team. There appears to be merit in future researchers examining the potential causes of sex stereotypes and bias within a context of social learning theory.

Female socialization into sport leadership is a relatively untapped area of research. Recent studies that empirically demonstrate the diminishing coaching and administrative positions for women in athletics (Acosta & Carpenter, 1985; Holman & Parkhouse, 1981; Williams & Miller, 1983) have evoked a sense of urgency in identifying what factors might be contributing to this phenomenon. Sex bias and stereotyping have been explanations frequently proposed for the decreased sport leadership opportunities for women (Hart, Hasbrook, & Mathes, 1986; Parkhouse & Williams, 1986). Gaining a better understanding of when and why sex bias and stereotyping occurs may help provide a foundation for future research on female socialization into sport leadership.

Over the last 25 years numerous researchers have investigated whether there is sex bias in the evaluation of males and females in achievement situations. Such efforts have generated equivocal results. Many studies have found that both sexes evaluate females less favorably than males (Dansker, 1973; Goldberg, 1968; Mischel, 1974; Rosen & Jerdee, 1973). Other studies have found that women

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are more likely than men to have stronger prejudices against women (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; McBrayer, 1960; McKeé & Sheriffs, 1957; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968) or that women do not devalue successful accomplishments of other women when they are compared to the identical accomplishments of men (Levenson, Burford, Bouno, & Davis, 1975; Peck 1978; Pheterson, Kiesler, & Goldberg 1971). See Wallston and O’Leary (1981) for a comprehensive review of these studies.

Pheterson et al. (1971) concluded that women cannot expect unbiased evaluations from other women until they prove themselves worthy of such recognition. More recently, Locksley, Borgida, Brekke, and Hepburn (1980) also suggested that male and female stereotypes diminish when more diagnostic information is available. This same notion is reflected in recent work by Eagly and Wood (1982). These authors found that because female implies lower status, individuals assume women to be less competent. When actual performance information was supplied, gender lost its prominence as a determinant of judgment.

The results of research on sex bias in the domain of athletics is no less contradictory than that found in business, art, and academia. Although most of the literature on athletics has focused on athletes rather than coaches or administrators, recent studies have examined attitudes of male and/or female athletes toward hypothetical male and female coaches (Parkhouse & Williams, 1986; Rikli & Cottle, 1984; Weinberg, Reveles, & Jackson, 1984). Parkhouse and Williams (1986) found definite bias favoring male coaches when they studied attitudes toward male and female coaches varying in professional status (defined by won/loss records and coaching honors). Both male and female high school basketball players viewed female coaches—who had almost identical performance records and coaching philosophies as male coaches—to be less knowledgeable, less able to motivate, less likely to achieve future success, and less desirable to play for than their male counterparts. The male athletes exhibited even stronger sex bias against the female coaches whereas male coaches were not differentially perceived. The “male is better” bias diminished only when athletes were forced to choose between being coached by the unsuccessful male coach or the successful female counterpart. Although their results were not significant, Rikli and Cottle (1984) found a trend for the same pro-male coach sex bias when they investigated the perceptions of female high school basketball players. Their failure to generate significant differences may have been due to methodological and measurement limitations (Parkhouse & Williams, 1986; Rikli & Cottle, 1984).

Weinberg and his colleagues (1984) obtained slightly different results in their examination of the attitudes and feelings of male and female college, high school, and junior high school varsity basketball players toward having a female versus a male coach. Only their male athletes exhibited a negative bias toward female coaches, and the male coaches continued to be not differentially perceived by male and female athletes. Weinberg et al. interpreted their findings as supporting Pheterson et al.’s (1971) conclusion that women can expect unbiased evaluation from other women when they prove themselves by demonstrating the ability to achieve success. Success in the Weinberg et al. study was playing varsity basketball and organizing a successful basketball clinic. The results of the Parkhouse and Williams (1986) study, however, suggest that some other mediating variables may have influenced the Weinberg et al. data. Even when the coaches in the Parkhouse and Williams study were described as having a season won/loss
record of 18-2 or 17-3, placing first in the conference, and being named coach of the year, the female athletes continued to exhibit negative bias toward the female coaches.

Unfortunately, most gender and sex bias research has been descriptive in nature (Deaux, 1985). The failure to conduct past research within a theoretical or conceptual model makes it particularly difficult to interpret equivocal findings. What might be contributing to or mediating the occurrence of sex bias remains to be determined. Future study requires a conceptual shift from sex and gender as static categories to theories that treat sex-related phenomena as a process (Deaux, 1984).

Social learning theory may be one theoretical model for potentially understanding the structure and process involved in the development of sex bias and stereotyping. The major premise of social learning theory, as applied to socialization, is that one's attitudes, beliefs, values, and behavior are determined by three sets of independent variables: personal attributes, significant others, and socializing situations (Clausen, 1968; Greendorfer, 1978). Individuals who vary in personal attributes and who have encountered very different role models and experiences are likely to be quite different from one another in their attitudes and behavior.

This is not the first time social learning theory has been proposed as a possible explanation for differential sex bias findings. In an earlier study, Peck (1978) suggested that contradictory research findings on sex bias may possibly result from varying awareness of and exposure to actual female role models. Specific to sport, Hoferek (1982) expressed her concern that "Given the impact of role models, the loss of women from decision-making positions could have serious implications for the socialization process in sport." Within athletics, perhaps the most important significant other (i.e., role model) in determining attitudes toward hypothetical male and female coaches is the athlete's own coach and whether that person is male or female. This may be one explanation for why Weinberg et al.'s female athletes viewed female coaches more favorably than did the Parkhouse and Williams female athletes. All of the female athletes in the Weinberg study were coached by women while no more than half of the female athletes in the Parkhouse and Williams study were coached by women.

According to social learning theory, contradictory sex bias findings may also result from differences in socializing situations. For example, would female athletes who play on a team that is successful have a different attitude toward their male and female coach, and thus male and female coaches in general, compared to female athletes who play on a team that is not successful? Studying the evaluation of coaches within a context of social learning theory may do much to help clarify exactly when and why differential attitudes toward males and females occur.

The purpose of this study was to examine whether having a male or female coach and participating on a winning or losing team would mediate sex bias when female athletes evaluate the basketball knowledge, coaching effectiveness, and desirability to play for hypothetical male and female coaches who vary in coaching status (defined by won/loss record and coaching honors). It was hypothesized that (a) there would be less pro-male bias for subjects coached by females compared to subjects coached by males, (b) the strongest pro-male bias would
be found in male coached subjects on winning teams and female coached subjects on losing teams, and (c) there would be no pro-male bias for male coached subjects on losing teams and female coached subjects on winning teams.

Method

Subjects

Subjects (N=80) in the present study were female varsity basketball players from eight high schools located in Orange County of the California Interscholastic Federation—Southern Section (CIF-SS). High schools were selected based upon the female basketball team coach’s gender and the team’s success. Half of the subjects were coached by a male and half by a female. Half of the male coached and female coached subjects had a successful season (won 60% or more of their games) and the other half had an unsuccessful season (lost 60% or more of their games).

Instrumentation

The subjects’ perceptions of each hypothetical coach’s knowledge of basketball coaching effectiveness and desirability to play for was assessed by having the subjects evaluate a coaching philosophy statement theoretically written by each coach. It was necessary, therefore, to have two coaching philosophy statements that appeared different but were essentially identical in philosophical content and appeal. The coaching philosophy statement used by Cottle (Cottle, 1982; Rikli & Cottle, 1984) which addressed concepts such as team unity, the rights and responsibilities of players and coaches, and other factors believed important in team success became the foundation for the two statements used in the present study. Two versions of Cottle’s statement were developed by employing the following techniques: (a) active voice changed to passive voice (a mixture of each equally appearing in both statements), (b) phrase order occasionally reversed while the same sentence order was retained within paragraphs, (c) paragraph order reversed, and (d) meaningless words added with no meanings removed. Earlier testing (Parkhouse & Williams, 1986) indicated the statements were identical in content and appeal, yet were not recognized as being nearly identical statements.

Preceding each of the two philosophy statements was the name of either a male or a female hypothetical coach and that coach’s status. High status coaches were described as having either an 18–2 or a 17–3 season record, a placement of first in the conference, and being named coach of the year. Low status coaches were described as having a 3–17 or 2–18 season record, a placement of last in the conference, and being granted no coaching honors. The subjects evaluated the hypothetical coaches who supposedly wrote the statements (one statement was written by a high or low status male and the other by a high or low status female) by responding to four 6-point semantic differential rating scales. The first scale rated the knowledge of basketball the coach demonstrated with his/her philosophy statement by having the subjects respond from 1 to 6—very little knowledge to extremely knowledgeable. The second scale assessed how effective the coach would be at motivating her players, with subject responses ranging from 1 to 6—not at all effective to extremely effective. The third scale asked the subjects to indicate their personal desire to play for the coach by responding from 1 to 6—no
Hypothetical female coaches were rated lower than hypothetical male coaches.

Hypothetical coaches were rated higher on each of the de-

Hypothetical basketball coach's by sex of hypothetical coach, F(1, 96) = 8.18, 9 = 0.01,

Hypothetical basketball coach as sex of hypothetical coach, F(1, 96) = 10.18, 9 = 0.01,

Hypothetical basketball coach's by sex of hypothetical coach, F(1, 96) = 9.30, 9 = 0.01,

Hypothetical basketball coach's by sex of hypothetical coach, F(1, 96) = 18.94, 9 = 0.00.

Follow-up: (MANOVA) tests on each of the dependent variables found

Results

The four semantic differential scales evaluating the coaching philosophy

Procedures

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.

Jr's current basketball season.
but this significant sex of hypothetical coach main effect was superceded by the significant interaction effect. On all dependent variables, the significant three-way interaction effect indicated a higher rating of the philosophy statement of the hypothetical male coach and a lower rating of the hypothetical female coach by male coached subjects who played on a winning team and female coached subjects who played on a losing team. This pattern disappeared and was replaced with a pattern of essentially equal ratings for the hypothetical male and female coaches when ratings were by female coached subjects from winning teams and male coached subjects from losing teams (see Figure 1).

The forced preference observed frequencies for sex of subject’s coach and success of subject’s athletic team by group by forced preference can be found in Table 1. Group (G) stands for assignment to one of the four experimental conditions in which both a male and a female hypothetical coach were evaluated and status level of the hypothetical coach varied (see the breakdown described in the Procedures section). Forced preference (F) stands for being forced to declare a preference for being coached by either the male or the female hypothetical coach. A group by forced preference by sex of subject’s coach log-linear model statistic was used to analyze what impact the sex of the subject’s own coach had on preference for being coached by the male or female hypothetical coach. Hierarchical models progressing from a single main effect to combinations of main effects, to single two-way interactions, to combinations of two-way interaction effects, to the fully saturated three-way interaction were delineated and tested until no further increment in explanatory power could be obtained. See Knocke and Burke (1980) for a more thorough discussion.

Three of the log-linear models seemed to offer promising fits to the observed data. The simplest of these models (S, GF), likelihood ratio $\chi^2 (7) = 9.97, p = .19$, indicated an effect of sex of athlete’s coach (S) independent of the joint interaction effect of group by forced preference (GF). The next feasible model (SF, GF), likelihood ratio $\chi^2 (6) = 5.58, p = .47$, showed an interaction effect of sex of athlete’s coach with forced preference (SF) independent of the interaction effect of GF. The most complex of the likely models to explain the data, that is, the fully saturated three-way interaction model (SF, GF, GS where GS stands for group by sex of athlete’s coach), likelihood ratio $\chi^2 (3) = 4.60, p = .20$, indicated that no effects were separable from the others in explaining the observed data.

Since these three models are hierarchical to each other, one can test the improvement of fit each model provides over the previous model in the hierarchy (Fienberg, 1977). The intent is to find the most parsimonious model while still best explaining the data. The second model in complexity (SF, GF) indicates a significant improvement in fit over the simplest (S, GF) model, $L^2 (1) = 4.41, p < .05$, while there was no significant gain by employing the most complex (SF, GF, GS) model over the SF, GF model, $L^2 (3) = .98, p > .10$. Thus it appears that both the interaction of sex of subject’s coach with forced preference and the interaction of group with forced preference are needed to best explain who one wants as a coach when being forced to choose between male and female coaches of varying status.

Examination of the frequencies in Table 1 indicates that subjects coached by a male preferred the hiring of the male coach almost 5:1 while subjects coached by a female had only a 3:2 preference for hiring the male coach. Regarding the group by forced preference interaction effect, examination of the data in Table
Figure 1 — Sex of subject’s coach by success of subject’s team by sex of hypothetical coach interactions for knowledge, ability to motivate, desire to play under, and future success.
<table>
<thead>
<tr>
<th>Sex of subject's coach/Success of subject's team</th>
<th>Forced preference</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male high/Female high</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>Male coach</td>
<td>Mr. Anderson</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ms. Miller</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Female coach</td>
<td>Mr. Anderson</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Ms. Miller</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>Mr. Anderson</td>
<td>15</td>
<td>14</td>
<td>20</td>
<td>8</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Ms. Miller</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Male coach/Winning team or Male coach/Losing team*</td>
<td>Mr. Anderson</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>8 (4, 4)</td>
<td>38 (19, 19)</td>
</tr>
<tr>
<td></td>
<td>Ms. Miller</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 (1, 1)</td>
<td>2 (1, 1)</td>
</tr>
<tr>
<td>Female coach/Winning team*</td>
<td>Mr. Anderson</td>
<td>5 (5, 0)</td>
<td>4 (4, 0)</td>
<td>10</td>
<td>0</td>
<td>19 (14, 5)</td>
</tr>
<tr>
<td></td>
<td>Ms. Miller</td>
<td>5 (0, 5)</td>
<td>6 (1, 5)</td>
<td>0</td>
<td>10</td>
<td>21 (6, 15)</td>
</tr>
</tbody>
</table>

*When all subjects did not choose the same hypothetical coach, the number in parenthesis breaks down the forced preference choice (first number reflects male coached subjects, second number reflects female coached subjects).
(row labeled Total) indicates there was almost a 4:1 preference for the male coach when choosing between a male coach who was equal or superior in status to the female coach (Groups 1, 2, and 3). This male preference disappeared only when the forced preference was between an unsuccessful male coach and a successful female coach (Group 4). Even then, 40% of the subjects chose the lower status male coach.

To test the hypothesis that the strongest pro-male bias would be found with male coached subjects on winning teams and female coached subjects on losing teams and that no bias would be found for female coached subjects on winning teams and male coached subjects on losing teams, a group by forced preference by sex of subject’s coach/success of subject’s team log-linear model statistic was run (see Table 1 for the frequency distribution). The sex of subject’s coach/success of subject’s team categories were the two groups indicated by the hypothesis (labeled “S2” in the log linear analysis). This time only the S2F, GF Model 16, likelihood ratio $\chi^2 (6) = 7.76$, $p = .26$, and the fully saturated S3F, GF, GS Model 17, likelihood $\chi^2 (3) = 3.04$, $p = .39$, seemed to offer promising fits to the data. The more complex Model 17 offered no improvement in fit over Model 16, $L^2 (3) = 4.72$, $p > .10$. Examination of the frequencies in Table 1 shows that on the S2F interaction, male coached subjects on winning teams and female coached subjects on losing teams chose the male hypothetical coach 95% of the time (38:2) while male coached subjects on losing teams and female coached subjects on winning teams had an almost equal preference (19:21) for hiring the male and female coach. The group by forced preference interaction was identical to that found in the earlier log-linear analysis.

A greater understanding of the 19:21 forced choice preference for male coached subjects on losing teams and female coached subjects on winning teams can be obtained if these subjects are examined separately. The female coached subjects on winning teams unanimously (15:0) preferred the hiring of the female coach, except for when the choice was between a low status female and high status male (0:5 vote for the high status male). The male coached subjects on losing teams unanimously (5:0) preferred the female coach only when the selection was between a high status female and a low status male. When the selection was between coaches equal in status or a male of higher status, the preferences were 14:1 in favor of hiring the male coach.

**Discussion**

The purpose of this investigation was to determine if the tenets of social learning theory might help clarify exactly when and why differential attitudes toward males and females occur in achievement situations. The hypothesis that athletes coached by a female compared to athletes coached by a male would have less pro-male bias in evaluating the coaching philosophy of hypothetical male and female coaches, and in choosing which of the hypothetical coaches they would prefer to have as their own coach, was supported only partially. Gender of one’s own coach influenced only the forced choice response. The best clarification of the coaching evaluations and coach preference data occurs from examining the interaction of the coaching role model and socializing situation. As hypothesized, male coached subjects on winning teams and female coached subjects on losing teams had the strongest pro-male bias. There also was no pro-male bias in female coached subjects on winning teams and male coached subjects on losing
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teams when athletes responded to the semantic differential scales (ratings on knowledge of coaching, ability to motivate, desire to play for, and the likelihood of future success).

The forced choice coach preference data also appeared to support the no pro-male bias hypothesis, up until the data were examined separately for the female coached subjects on winning teams and male coached subjects on losing teams. Male coached athletes on losing teams had a pro-male bias; it was just not as strong as that found with male coached athletes on winning teams and female coached athletes on losing teams. For the female coached athletes on winning teams, the masculine superiority syndrome not only disappeared but was replaced by a pro-female bias! The ability of the forced choice procedure to detect stronger bias than that obtained with the semantic differential ratings confirms McKee and Sheriff's (1957) and Rikli and Cottle's (1984) proposal that the employment of a forced choice procedure provides a more powerful measurement tool of sex bias in evaluation.

These findings suggest that mere exposure to female role models is not sufficient to eliminate pro-male sex bias in evaluating hypothetical male and female coaches. It may be that involvement with female role models needs to occur within a positive socializing situation, such as the one in the present study in which subjects participated on a winning team and thus may have perceived their female coach as playing a part in that success. In retrospect, when this does occur, the choosing of the female coach over an equally or less qualified male coach is consistent with the tenets of social learning theory rather than just the "no pro-male" bias hypothesized prior to conducting the study. These results also suggest that the coach evaluation findings by Weinberg et al. (1984) and Parkhouse and Williams (1986) may have been a consequence not only of differences in the sex of the subject's own coach but also in how successful the subjects perceived their team and coach to be. Unfortunately, this proposition cannot be examined in these earlier studies because the necessary data were not provided.

Although sex bias for female athletes in the present study was mediated by both the sex of the subject's own coach and playing on a winning or losing team, it is not known whether sex bias of male athletes would be mediated in a similar way. This is a much more difficult phenomenon to test because, traditionally, male athletes have been coached almost exclusively by male coaches. Weinberg et al. (1984) stated that the attitudes of male athletes have not changed enough to view a female coach on the same basis as a male coach. They cited studies that suggest the male competitive sport background emphasizes that competitiveness and masculinity are compatible whereas femininity and competitiveness are not compatible; and thus males would not deem it appropriate for women to be coaching in a man's domain. If this is the case, one might hypothesize that such biases by male athletes are merely a consequence of males having been exposed primarily to male coaches and to having experienced athletic success only under the tutelage of male coaches. Should males have a female coach and experience success within that competitive situation, these biases might be changed just as the pro-male bias was changed in female athletes exposed to female coaches who led them to success. Currently a small number of women are coaching men, and there is an active attempt to increase these numbers (Oglesby & Shelton, 1987). Hopefully, in the near future there will be enough females coaching men that this hypothesis can be tested.

Perhaps past contradictory sex bias results in business, art, and academia
were partially due to differential exposure to male and female role models and to socializing situations relevant to the presence of the role models and the circumstances being evaluated. Based upon the results of this investigation, there definitely appears to be merit in future researchers pursuing social learning theory as a theoretical framework for enhancing understanding of sex stereotypes and factors that might mediate the occurrence of sex bias.

The reader is cautioned, however, to not interpret the present results as definitely confirming that a social learning model does indeed explain sex stereotypes and bias. Only a few of the potential factors involved in social learning theory were operationalized in the present study and only a few social learning derived hypotheses were tested. For example, influences from differences in the personal attributes of the athletes are an important foundation of social learning theory, and yet they were not studied. Socioeconomic status, ethnicity, length of participation in sport, and individual skill are just a few personal attributes that may influence evaluation of male and female coaches. The operationalizational of significant others and of socializing situations also was limited. For example, the sex of coaches of other teams and the successfulness of their programs may have an impact on athletes' attitudes. Also, coach variables such as warmth-nurturance, similarity to the perceiver, and personal skill and attractiveness may influence perceptions as much as gender. Because of these limitations, the present study should be viewed as only the beginning. Future research must replicate the present results as well as extend the application of social learning theory before it can be determined that social learning theory helps explain the occurrence of sex stereotypes and bias.

References


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