This study was conducted to investigate factors that might assist in understanding perceptions about women in coaching; contribute to an understanding of the decline of women in coaching; and examine possible differences in the preferences of coaches by players exposed to a gender socialized version of the same game, namely 5- and 6-player basketball. Subjects (N=234) were female varsity basketball players from 21 high schools throughout the state of Iowa. High schools were randomly selected based on the sex of the girls' basketball coach and the team's success. Materials consisted of two coaching philosophy statements, a series of semantic differential rating scales, and a preference question which required subjects to select a preferred coach after reading a description of the coach's philosophy. Results, inconsistent with the literature, indicate that female players from both winning and losing teams tended to choose a hypothetical female coach over a hypothetical male coach; the hypothetical male was preferred over the hypothetical female only when the choice was between a high status male coach and a low status female coach. Findings therefore fail to help explain the small number of women coaches in Iowa. (Contains 34 references and 5 tables.) (LL)
The Effect of Gender and Coaching Success on Players' Preference
For a Coach In High School Girls' Basketball

By
Jody Brylinsky, PhD
Western Michigan University
James C. Moore, Ph D.
University of South Dakota

Kendra Nesland, MA
Sioux Falls College

Running Head: Gender and Status in Preference of Coach
Submitted May 4, 1993

Jody Brylinsky, PhD
262 North Hall
Department of HPER
Western Michigan University
Kalamazoo, MI 49008

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The Effect of Gender and Coaching Success on Players' Preference
For a Coach In High School Girls' Basketball

There is a general consensus that girls will not perceive coaching, athletic administration, and possibly even participation in athletics to be viable and acceptable career choices unless they are exposed to positive female role models in those positions (Acosta & Carpenter, 1985a, 1988; Brown, 1981; Cusick & Wolfe, 1985; Fowlkes, Coons, Bonner, & Keppein, 1987; Greendorfer, 1977; Lopiano, 1980, 1986; Sisley & Capel, 1986; True, 1986; Weiss & Sisley, 1984). While the number of women participating in interscholastic and intercollegiate athletics has increased dramatically, research shows that women in leadership roles have actually decreased in number (Acosta & Carpenter, 1985a, 1988; Brown, 1981; Cusick & Wolfe, 1985; Holmen & Parkhouse, 1981; Lopiano, 1980; Potera & Kort, 1986). Considering that coaches and teachers have been shown to be a primary socialization agent influencing female athletic participation at the junior and senior high school levels (Higginson, 1985), a lack of gender specific encouragement may have far-reaching implications.

Differential evaluations of male and female coaches may be an important issue in why women are leaving the coaching and administrative ranks. Research which has examined the devaluation of female coaches suggests the concept of perceived competency as a way of further examining gender preference in the selection of coaches. Weinberg, Reveles, & Jackson (1984) suggested that until a female coach can prove herself by demonstrating success, female athletes will be skeptical about the coach's ability. Once the athletes are provided evidence to the contrary, the perception of the female coach is less biased. However, Parkhouse and Williams (1986) using descriptions of hypothetical female and male coaches, found that a pro-male preference continued to exist even when female coaches were perceived successful, i.e. having a season won/loss record of 18-2 or 17-3, placing first in the conference, and being named coach of the year. Both male and female athletes perceived the female coaches to be less knowledgeable, less able to motivate, less likely to achieve future success, and less desirable to play for than a male coach. The pro-male preference only diminished when athletes were asked to select between a successful female coach in comparison with an unsuccessful male coach. Williams and Parkhouse (1988) continued this line of research by studying the evaluation and preference of coaches within the context of social learning theory. Their findings suggested that exposure to successful female role models accompanied by a positive socializing situation would be more likely to eliminate the pro-male preference for basketball coaches. That is, simply playing on a team with a female coach may not reduce gender preference unless the team is successful and the female coach is perceived by
Gender and Status in Preference of Coach

her athletes to have contributed to that success.

Whether a sport is perceived to be "masculine" or "feminine" has also been shown to be an important factor on whether negative stereotyping for females exists (Anthrop & Allison, 1983; Duquin, 1978). Basketball has traditionally been considered inappropriate for participation by females and perceived to have highly masculine characteristics (Boutilier & SanGiovanni, 1983; Csizma, Wittig, & Schurr, 1988; Matteo, 1984; Methany, 1965; Snyder, Kilvin, & Spreitzen, 1975; Snyder & Spreitzen, 1976). In spite of these findings there has been a tremendous increase in female participation, hence more female teams. Thus, the decline in the number of female coaches is further puzzling.

A state that provides a unique setting for studying women's sports is Iowa. Iowa is the only state in which females outnumber males in interscholastic participation (Casick & Wolfe, 1985). Unlike many other states, Iowa has endorsed organized, competitive athletics for high school girls, which have been strongly supported, since the mid-1920's (Anderson & Gill, 1983; Kriener & Mathes, 1988). A study examining how Iowa high school students rated 20 selected sports on sex-appropriateness (Nesland & Brylinsky, 1988) revealed that both types of basketball played by high school girls in Iowa (5-player and 6-player) were perceived to be appropriate for female participation. Additionally, 6-player basketball in Iowa, which is played competitively by girls only, was rated as significantly more appropriate for female participation than 5-player basketball. The game of 6-player basketball was created essentially to be a "safer" feminine version of the 5-player game (Twin, 1979).

The study reported in this paper is a further attempt to understand the perception that female athletes have in respect to the gender of a coach. The Williams and Parkhouse (1988) findings suggest that female athletes by and large, would prefer a hypothetical male coach under most conditions. By conducting the study on the Iowa population of female athletes, it was possible to examine gender preference of females participating in a sport in which there is a male and a female version of the same game, specifically five and six player versions of basketball. In addition it provided the opportunity to replicate the previous research by Parkhouse and Williams in a different geographic setting.

Based on previous findings showing a male preference it was expected that there would be an overall preference for hypothetical male coaches by players coached by males when compared to players coached by females regardless of team success. It was also expected that 5-player teams would prefer the male coach more so than the 6-player teams.
Gender and Status in Preference of Coach

Method

Subjects

Subjects (N=234) were female varsity basketball players from 21 high schools throughout the state of Iowa. High schools were randomly selected based on the gender of the girls' basketball coach and the success of the team. In accordance with Williams and Parkhouse (1988), a successful team was identified as having won 60% or more of the current season's games while an unsuccessful team was identified as having lost 60% or more of the current season's games. The categorical breakdown of the 234 subjects by gender of the real coach, team success, and type of basketball played are provided in Table 1.

[insert Table 1 about here]

Materials

Materials were identical to that of Parkhouse and Williams (1986) which consisted of two coaching philosophy statements, a series of semantic differential rating scales, and a preference question. Findings reported in this paper deal with the preference question which required subjects to select a preferred coach after reading a description of the coach's philosophy as discussed below.

Philosophy Statements

Two written philosophy statements, developed by Cottle (1982) and revised by Parkhouse and Williams (1986), were used to represent two hypothetical coaches. Introducing each philosophy statement was the name of either a male (Mr. Anderson) or female (Ms. Miller) coach and his/her coaching status. High status was an 18-2 or 17-3 season won/loss record, placing first in the conference, and having been named Coach of the Year. Low status was a 3-17 or 2-18 season won/loss record, placing last in the conference, and having received no coaching honors. Each hypothetical coach was described as a high status under one condition while in the other condition they were low status. A pilot test (Parkhouse & Williams, 1986) indicated the coaching statements were identical in content as well as appeal and subjects did not recognize the two statements as being nearly identical in content. The philosophy statements dealt with the concepts of team unity, rights and responsibilities of players and coaches, and factors which lead to success.

Preference Question

The subject read the two identical philosophy statements and were then asked to respond to the following preference question. "If your high school was selecting a new coach for your basketball team and these two coaches applied for the position, which one would you like to have as a coach?" (Williams & Parkhouse, 1988). The only difference between the hypothetical coaches was their gender and status. It was expected that if gender and status had an effect it would be observed in differential preferences under combinations of these two conditions.
Procedure

Twenty one teams selected for participation in the study qualified by season's end by meeting the criteria of won/loss records greater than or less than 60%. Materials were mailed to the 21 coaches for their players to compete within the last two weeks of the regular season. The timing was important since a team finishing unexpectedly high or low in tournament competition could effect perceptions. Coaches administered the materials before their teams began post season tournament play, as per the procedure used by Williams and Parkhouse (1988). Enough materials were provided to be administered to 18 players per team.

To ensure the distribution of experimental conditions within each team and across all 21 teams, each coach received a packet of envelopes. Each envelope contained the material for one player to complete. The packets of envelopes were arranged in such a way that players were placed in one of four conditions. Since the coach nor the players knew the conditions of interest this procedure had the effect of random assignment to conditions.

Each envelope contained directions and two philosophy statements for two hypothetical coaches. As discussed earlier the philosophy statements, while worded differently, were basically identical in content. The difference was in the information that provided the gender and status of the coaches. The combination of gender and status resulted in four conditions as follows:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Status and Gender of Hypothetical Coach #1</th>
<th>Status and Gender of Hypothetical Coach #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Successful Male</td>
<td>Successful Female</td>
</tr>
<tr>
<td>2</td>
<td>Unsuccessful Male</td>
<td>Unsuccessful Female</td>
</tr>
<tr>
<td>3</td>
<td>Successful Male</td>
<td>Unsuccessful Female</td>
</tr>
<tr>
<td>4</td>
<td>Unsuccessful Male</td>
<td>Successful Female</td>
</tr>
</tbody>
</table>

Each player responded to one of the conditions. That is, the player read the philosophy statements and then chose which coach they would prefer. The two philosophy statements were equally distributed between each hypothetical coach in each group. In addition, the order of the coach (male/female) and status (high/low) in each packet was counterbalanced. Subjects were instructed to read the first philosophy statement and respond to a semantic differential rating scale evaluating the coach's knowledge of basketball, ability to motivate players, personal desire to play for the coach, and predicted success of the coach. Each subject then repeated the procedure for the second hypothetical coach. After responding to the four scales for the second coach, subjects answered the preference question indicating their choice to play for one of the two coaches. The rating scales served to focus the players attention on specific coaching attributes prior to selecting the preferred coach.
Analysis of data

Preference for the hypothetical coach was analyzed utilizing frequencies and percentages as well as a loglinear approach (Ncrusis, 1985). Loglinear models assume that all of the variables are categorical. The process allows for the modeling of various combinations of variables with the objective of finding the most meaningful or best fitting model that can be used to assist in explaining results.

Results and Discussion

Table 2 provides the frequencies and percentages of preferences for the hypothetical coaches, Mr. Anderson and Ms. Miller, under each of the four conditions. For example, under the condition of High Status Male (HM) when paired with a High Status Female (HF), 46% selected Mr. Anderson while 54% selected Ms. Miller.

It can be observed in Table 2 that Ms. Miller was preferred in each of the conditions except condition three where she was classified as a Low Status (LF) and Mr. Anderson was High Status (HM). This was expected based on previous research. Overall it can be seen that Ms. Miller was preferred 58% of the time and Mr. Anderson 42%. This was not expected based on previous research. As reviewed earlier, the majority of studies found an overall preference for a male coach.

To explore the data further, loglinear analysis was employed. Basically, the loglinear process generates models that best explain associations among variables. In this case the variables of interest were preference for hypothetical coach (P), status conditions (C) and gender of the real coach (G). Three models emerged that offered partial explanation of the associations among P, C and G. Loglinear models are hierarchal in that they seek the most simple to the most complex associations. If a more complex model does not add significantly to an association, interpretation is focused around the simplest model that fits the data. As such, the process provides Goodness-of-Fit tests for the models. Table 3 provides the results of the loglinear analysis.

The p-values in Table 3 can be used to identify the best fit. The larger the p-value the better the fit. In the model column, the symbols, P, C, and G represent the variables. Associated variables are joined together with no comma between them. Each of three models provide some structure to the pattern of association among the variables. It is preferable to interpret the data with the model that provides the fewest associations. The simplest model was (PC). However, (PC, G) and (PC, PG) each provide slightly better fits as can be observed by the larger p-values. To test whether the succeeding model added significant improvement over the
more simple model a chi-square statistic between the $L^2$ values was conducted. Results were not significant ($p > .10$) and thus the (PC) model was used to best represent the data.

What the (PC) model suggests is that the preference for the hypothetical coach was most related to the gender and status of the hypothetical coach. It is interesting to note the gender of the real coach was not a strong influence in selecting the preferred coach. More important to this study was the finding that the preferred coach was female in three of the four conditions which does not support the expectation that there would be an overall male preference as reported in previous research. The only finding that was expected was the preference for a high status female coach when paired with a low status male coach. Examination of the cell percentages in Table 2 indicates that the subjects preferred the hiring of the female coach in every case except when selecting between the high status male and low status female.

A second loglinear analysis was conducted in which preference (P) and condition (C) were again two of the variables. A third variable (R) was created which combined the gender and success of the real coach into one variable. The simplest and best fitting model that emerged was again the (PC) model and did not support the idea that female players would prefer the hypothetical male coach regardless of the success of their team and gender of their real coach.

Loglinear analysis was also used to determine if coach preference was associated differently when five player teams and six player teams were considered. The (PC) model once again provided the best fit. Examination of Table 4 reveals a similar pattern as in Table 1. For both 5-player subjects and 6-player subjects, the female coach was chosen in every case except when the choice was between the high status male and the low status female. Again, the strongest preference was the choice of a high status female coach over a low status male coach. Additionally, 5-player subjects showed a greater preference for the female coach than did 6-player subjects. Socialization theory utilized by Williams and Parkhouse (1988) would suggest that players exposed to a feminine version of basketball (6-player) would have demonstrated a greater preference for a female coach than players exposed to the more masculine version (5-player).

The expectation that male coached players would exhibit more pro-male preference than female coached subjects was not supported. Rather than exhibiting a pro-male preference, players from both male and female coached teams tended to choose the hypothetical female coach over the hypothetical male coach. However, male coached players preferred the hiring of the hypothetical male coach more frequently than female coached subjects (46% as compared to 39%), similarly the preference for the hypothetical female coach was stronger for athletes under the direction of a female coach than for male coached athletes (61% as compared to 54%) see
Table 5. This difference was not statistically significant.

Discussion

The purpose of this study was to extend the research of Parkhouse and Williams (1988) by investigating factors that might assist in understanding perceptions about women in coaching and contribute to an understanding of the decline of women in coaching. In addition, this study was able to investigate possible differences in the preferences of coaches by players exposed to a gender socialized version of the same game, namely 5 and 6-player basketball.

Results were contrary to the findings of Williams and Parkhouse (1988). Female players from both winning and losing teams tended to choose the hypothetical female coach over the hypothetical male coach regardless of the gender of their real coach or success of their real team. The hypothetical male was preferred over the hypothetical female only when the choice was between a high status male coach and a low status female coach. In this condition, the players would prefer to play for a winning coach regardless of the gender of the coach.

The condition the player was assigned to was the only significant predictor of coach preference. That is, the status level of the hypothetical coaches had the strongest influence on preference. This is contrary to the conclusion of Weinberg Reeves, & Jackson. (1984) who suggested that women cannot expect unbiased evaluation until they prove themselves through some type of success. When forced to choose between a low status male and a low status female, subjects in this study chose the hypothetical female coach over the hypothetical male coach. These results are also contrary to results of the Peterson, Kiesler, & Goldberg (1971) study in which women were biased against other women who had not achieved success.

The expectation that there would be greater pro-male preference by players from the five player teams than by players from six player teams was not supported. Players preferred the hiring of the hypothetical male coach over the hypothetical female coach only when choosing between a high status male and low status female. That is, the winning status of the hypothetical coach had the strongest influence on coach preference not gender. The greatest difference between the two types of teams occurred when choosing between the low status male and the low status female. It was interesting that in this condition (condition 2, Table 4) 5-player subjects were much more likely to choose the hypothetical female. whereas 6-player subjects demonstrated only a slight preference for the female. Even though 6-player basketball was perceived as more appropriate for female participation than five player basketball in Iowa (Nesland & Brylinsky, 1988), 6-player athletes did not show a strong preference for a female coach than 5-player subjects. Nevertheless, neither group exhibited the pro-male preference that had been expected from previous research.
Gender and Status in Preference of Coach

Results of this study do not support the contention that involvement with female role models must occur within a positive socializing situation (Lockheed & Hall, 1976) such as participating on a winning team in order to eliminate pro-male preference and are in disagreement with the concept of gender as the strongest status characteristic, at least when paired with winning or not winning in the athletic setting. Rikli and Cottle (1985) did not find a pro-male preference in their study; however, they suggested that their lack of using a forced preference question may have resulted in not identifying a sex preference.

In summary, an increase in the number of females participating in athletics and a concurrent decline in the number of women in administration and coaching in athletic programs has been documented. One partial explanation that has been offered is that perhaps the decline is related to a preference of male coaches by female athletes. Results of this study do not support this explanation since the female coach was preferred. The effect of the type of basketball played (identified as a different socializing experience) did not influence the rating of perceived competency of basketball coaches. Subjects from 5-player teams exhibited no more pro-male preference than subjects from 6-player teams. In fact, both 5 and 6-player subjects preferred the female coach overall.

Except when choosing between a high status male coach and a low status female coach, subjects indicated a preference for the female coach. Thus, the variable which apparently effected preference for the male was his winning status. These results are contrary to other research findings of pro-male preference in athletes' ratings of hypothetical male and female basketball coaches (Cottle, 1982; Parkhouse & Williams, 1986; Rikli & Cottle, 1985; Weinberg Reeves, & Jackson, 1984; Williams & Parkhouse, 1988).

While finding a pro-female preference is encouraging, results of this study fail to help explain the small number of women coaches in Iowa. In the 1990-91 athletic season, Iowa had the greatest rate of girls participation in high school athletics in the nation. For their most popular sport, basketball, 17% (personal correspondence, Iowa Girls Athletic Union, Nov. 6, 1990) of the coaches for girls basketball teams were women (71 of 419 coaches for 5 and 6 player basketball). This number is higher than that reported in 1981 where only 13.8% (Mathes, 1982) of head coaches were women (60 of 433 coaches). If sport is not perceived to be a masculine domain in Iowa and if female coaches are perceived positively by female athletes, why are so few women coaching girls' basketball in Iowa? The highly visible nature of female athletics in Iowa, while a positive socializing situation for the athletes, is not accompanied by a high percent of female coaches. Results of this study suggest that the blame cannot be shifted to players' preference.
REFERENCES


Table 1
Subject Description by Gender of Coach, Team Success and Type of Basketball Played
(Total Players = 234)

<table>
<thead>
<tr>
<th></th>
<th>Male Coached Players</th>
<th>Female Coached Players</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Successful team:</strong></td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>5-player team:</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>6-player team:</td>
<td>29</td>
<td>41</td>
</tr>
<tr>
<td><strong>Unsuccessful team:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-player team:</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>6-player team:</td>
<td>39</td>
<td>37</td>
</tr>
</tbody>
</table>
Table 2
Observed Frequencies and percentages for Forced Preference by Condition (Five and Six Player Teams Combined)

<table>
<thead>
<tr>
<th>Hypothetical Condition</th>
<th>Preference</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM, HF</td>
<td>Mr. Anderson</td>
<td>26</td>
<td>26</td>
<td>36</td>
<td>11</td>
<td>99</td>
</tr>
<tr>
<td>LM, LF</td>
<td></td>
<td>(46%)</td>
<td>(43%)</td>
<td>(59%)</td>
<td>(19%)</td>
<td>(42%)</td>
</tr>
<tr>
<td>HM, LF</td>
<td>Miss Miller</td>
<td></td>
<td>34</td>
<td>25</td>
<td>46</td>
<td>135</td>
</tr>
<tr>
<td>LM, HF</td>
<td></td>
<td>(54%)</td>
<td>(57%)</td>
<td>(41%)</td>
<td>(81%)</td>
<td>(58%)</td>
</tr>
</tbody>
</table>

Note: HM = High status male coach, LM = Low status male coach, HF = High status female coach, LF = Low status female coach
Table 3: Goodness-of-fit Tests for Loglinear Models Relating Preference For Hypothetical Coach (P), Condition (C), and Gender (G) of Real Coach.

<table>
<thead>
<tr>
<th>Model</th>
<th>$L^2$</th>
<th>df</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(PC)</td>
<td>4.09</td>
<td>8</td>
<td>.849(a)</td>
</tr>
<tr>
<td>(PC,G)</td>
<td>2.99(b)</td>
<td>7</td>
<td>.885</td>
</tr>
<tr>
<td>(PC,PG)</td>
<td>1.93</td>
<td>6</td>
<td>.926</td>
</tr>
</tbody>
</table>

(a) Since these were Goodness-of-fit tests large p-values suggest better fits.
(b) p>.10, the models are hierarchical; therefore a test is made for the improvement of the F, a model provides over the previous model. Model (PC,G) did not provide a significant improvement over (PC). No test is recommended after the first non-significant result.
Table 4
Observed Frequencies and Percentages for Preference by Condition
with Type of Basketball Played Data

<table>
<thead>
<tr>
<th>Preference</th>
<th>Hypothetical Condition</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HM, HF</td>
<td>LM, LF</td>
<td>HM, LF</td>
<td>LM, HF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Player</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Anderson</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>4</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(45%)</td>
<td>(35%)</td>
<td>(58%)</td>
<td>(19%)</td>
<td>(40%)</td>
<td></td>
</tr>
<tr>
<td>Miss Miller</td>
<td>11</td>
<td>15</td>
<td>10</td>
<td>17</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(55%)</td>
<td>(65%)</td>
<td>(42%)</td>
<td>(81%)</td>
<td>(60%)</td>
<td></td>
</tr>
<tr>
<td>6 Player</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Anderson</td>
<td>17</td>
<td>18</td>
<td>22</td>
<td>7</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(47%)</td>
<td>(49%)</td>
<td>(59%)</td>
<td>(24%)</td>
<td>(44%)</td>
<td></td>
</tr>
<tr>
<td>Miss Miller</td>
<td>19</td>
<td>19</td>
<td>15</td>
<td>29</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(53%)</td>
<td>(51%)</td>
<td>(41%)</td>
<td>(76%)</td>
<td>(56%)</td>
<td></td>
</tr>
</tbody>
</table>

Note: HM = High status male coach, LM = Low status male coach.
HF = High status female coach, LF = Low status female coach.
Table 5
Preference For Male or Female Coach By Gender of Real Coach

<table>
<thead>
<tr>
<th>Preferred Coach</th>
<th>Gender of Real Coach</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50 (46%)</td>
<td>49 (39%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>59 (54%)</td>
<td>76 (61%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>234</td>
<td></td>
</tr>
</tbody>
</table>