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## **Competitive Attitudes and Egotistical Attributions: Gender Differences While Competing in a Game of Pool**

*Emily J. Keener*  
*Wheeling Jesuit University*

### **ABSTRACT**

To determine if gender or skill level are factors in the expression of competitive attitudes and egotistical attributions, 51 participants were asked to complete an online survey. Participants described their thoughts, feelings, and actions during a scenario describing a game of pool. Content analysis was used to code competitive responses. Also, participants were asked who they felt played the better game and why. Results show novice participants displayed competitive attitudes when competing against females and experienced participants displayed competitive attitudes when competing against males. Gender of participant, gender of opponent, and skill level had an effect on participants making egotistical attributions. Experienced participants made egotistical attributions more than novice participants. When participants with experience competed against the opposite sex they made egotistical attributions more often than when they competed against the same sex.

### **Introduction**

Competition between men and women is becoming more common. It is happening everywhere; in the workplace, at school, in social situations and even on reality television. Music Television (MTV) and Columbia Broadcasting System (CBS) have both included "The Battle of the Sexes" into their 2003 line up. The popular shows *Survivor* and *Road Rules Versus Real World* have placed men and women in direct competition with each other. The public's interest in this topic is increasing.

It is a fairly new situation for both men and women to be considered equally competent to compete against each other with no special considerations for female participants. Title IX of the Educational Amendments of 1972 is the landmark legislation that banned sex discrimination in schools, whether in academics or athletics. Title IX stated: "No person in the U.S. shall, on the

basis of sex be excluded from participation in, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal aid” (Fakehany, 2003, 1). This legislation was very important for female athletes. Since Title IX, female participation in organized sports has more than doubled (Fakehany, 2003). Even so, it is still rare for men and women to be in direct competition with one another.

For the most part, if women and men were competing against one another, the female is given an advantage or held at different standards than men. One situation where advantages and different standards are not necessary is in the game of pool. Everyone who plays pool has the same potential to win; gender is not a factor. Shamos (1995) suggested that women have been playing since the 15th century, but they have not always been welcome to play the game. In the 1920's, the poolroom was a place where only men gathered. Shamos explained that until recently billiards was completely dominated by men. Even so, there has been at least one prominent female professional on the scene since the 1890's (Shamos, 1995). Shamos suggested that women have and always will be just as capable as men to compete in billiards. Stereotypes and social constructs have been the only issues that have held women back, but these roles are changing. Shamos (1995, p. 3) stated “as this situation changes, we can expect women to equal men in ability and take the game to even greater heights.” Thus, using a simulated game of pool seems to be a valid situation to investigate the phenomena associated with competition and how men and women compete differently individually and when competing against one another.

The idea that males and females are equally capable of competing in the game of pool raises some interesting questions, for example: why do men and women compete separately more often than together? Does the game change when men and women compete against each other, if so, how? There seems to be a difference in how men and women compete and how they compete against the same and opposite sex. Gaining an understanding of the moderators affecting competition between genders will aid competitors to weigh the decision of competing in same sex or opposite sex situations. There are many phenomena associated with competition; of particular interest here are the displayed competitive attitudes and egotistical attributions.

Research has shown that there are gender differences in the way competitive attitudes are displayed. Kagan's (1964) review of the literature regarding sex role prescription suggests that females are supposed to be passive with men and inhibit aggression. Men are expected to be aggressive especially when challenged by another individual (no matter the gender) or problem. Freischlag (1971) found evidence to confirm Kagan's findings to the extent that males were aggressive (competitive) with other males and females were non-aggressive (noncompetitive) with other females. These role prescriptions seem only to influence same sex interaction as females became more aggressive (competitive) with an opponent of the opposite sex. Freischlag suggested that aggressive attitudes are thought to be signs that the participant is being competitive. Hearne (1998) has suggested that competitiveness can be described as having a focus on winning. In this study, a participant will be considered competitive if they are responding in aggressive ways or demonstrate a focus on winning. It is predicted that males will be more competitive than females.

Stephan, Rosenfield and Stephan (1976) found that there are gender differences in the attributions to success or failure depending on the gender of the opponent. Stephan et al. have

defined egotistical attributions as the pattern of people taking credit for their successes and denying responsibility for their failures. Stephan et al. found males competing against both the same and opposite sex took credit for success more often than they gave successful opponents and took responsibility less for failure than they held their opponents responsible for failing. This finding was also found to be true for females competing against the same sex; however, females competing against the opposite sex did not make these egotistical attributions. This research has led to the belief that males will be more likely to make egotistical attributions than females. Gill (1980) found that attribution patterns were consistent for both males and females. She studied attributions within competing groups, while Stephan et al. studied participants competing as individuals. It seems that there are many factors to consider when studying attributions. Gill has found in a more recent study on competitive sport orientation strong differences between athletes and non-athletes. This finding leads to the idea that skill level could interact with gender in investigating attribution patterns. Given the inconsistency in how gender influences attributions there are no definitive predictions that can be made regarding how gender and skill level interact with attribution patterns.

The present investigation was designed to further investigate gender differences in the display of competitive attitudes and egotistical attributions. Due to gender roles changing over time it is believed that further investigation is needed to understand the phenomena associated with competition and gender. There are many moderating variables to consider while investigating competitive attitudes and attribution patterns; of particular interest here is skill level and gender of the opponent. To investigate these issues a scenario describing a game of pool was used because it is a sport where men and women are equally capable of playing and most participants are familiar with the game.

In the present study, the scenario describing a game of pool was set up such that the opponent always plays the better game and loses because he or she scratches on the 8 ball (true, a mistake, but only one compared to the many mistakes of the participant). It was predicted that experienced participants would be more likely than novice participants to make egotistical attributions. It was assumed that experienced participants feel confident that they will win because they consider themselves to be at least better than average if not an expert at pool. Stephan et al., (1976, p. 1161) stated, "In situations where ego involvement is high and opportunities for social comparison are present, people tend to take credit for their successes and deny blame for their failures." Because of this confidence (ego), experienced participants will want to attribute winning to their skill. Also, it is predicted that participants who are competing against the opposite sex are more likely than those competing against the same sex to make egotistical attributions.

## **Method**

### *Participants*

Fifty-one participants (27 experts and 24 novices) were recruited from a university psychology department research pool, local pool leagues, and competitive pool websites volunteered to participate in the study. Twenty-eight females and 23 males participated in the study. The participants were debriefed following the conclusion of the study by reading a letter

posted on the website. Undergraduate participants received 1 credit toward their introductory psychology research requirement.

### *Apparatus*

Participants used a computer with Internet access to participate. All surveys were completed online. Participants completed a survey asking for demographic information and two different scenarios (with the only differences being the name of the opponent) describing a game of 8-ball via pictures. The only difference in the two scenarios was the opponent's gender, which was manipulated by using the names Mark and Mandy.

### *Procedure*

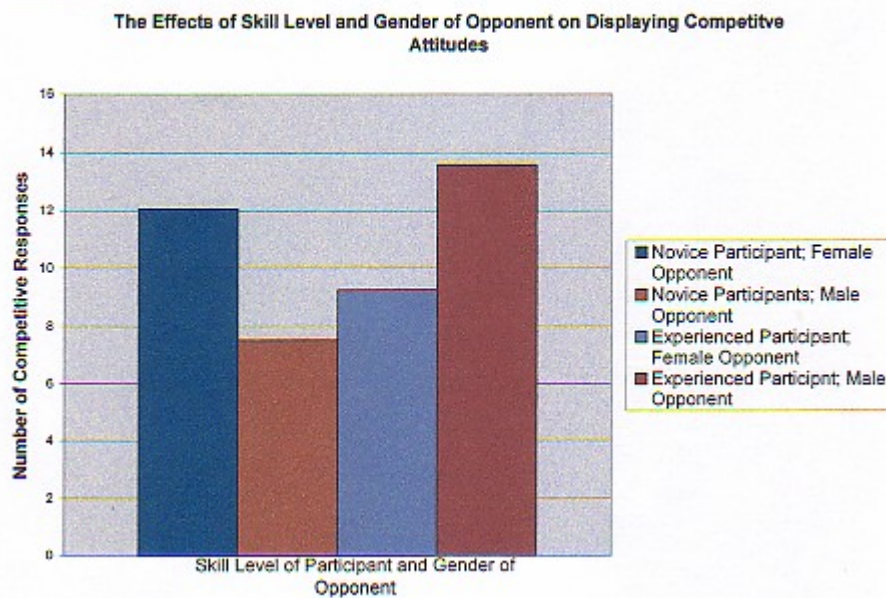
Participants used the Internet to log onto the website where the survey was located. The first page on the site explained the research project. Next, participants were asked to click on the link that included their birthday (either January- June or July –December). This question was asked to ensure that participants were randomly assigned to groups (Male vs. Male, Male vs. Female, and Female vs. Female). Participants with their birthday in January-June received scenario A, Mandy, as their opponent. Participants with their birthday in July – December received scenario B, Mark, as their opponent. Next, all participants were asked to fill out the online consent form. After giving consent, participants were asked to electronically fill out a short survey. The survey asked for demographic information, such as sex, occupation, and skill level. After the survey was completed, all participants received the same scenario with the same questions to complete. The only difference in the scenarios was the gender of the opponent, which was manipulated by the name of the opponent. The participants read a description of and looked at a photograph of a shot in a pool game. They responded by typing their response in the provided space with feelings they had about the shot or the game at that point. Next, they described any thoughts they had about the shot or game. Last, they described what actions they would like to take. They gave these responses for each shot in the game. After the last shot, they were asked to indicate who they thought played the better game and why. The scenario was set up so that the opponent always played the better game, but the participant won because of a technicality.

## **Results**

To determine if gender is a factor in the how competitive attitudes are displayed responses were coded. Definitions of competitive have emphasized a focus on winning and behaving aggressively. Any aggressive or winning focused thoughts, actions, or feelings were considered competitive. For example, criticism of the opponent's skill, name calling, expressing hopes for opponent to miss or lose, or expressing hopes that they will make a shot or win were counted as competitive responses. Data were analyzed with a 2 (gender of participant) X 2 (skill level) X 2 (gender of opponent) factorial analysis of variance, with the level of alpha set .05. A main effect for competitive responses was not found; no significant effects of gender of participant or gender of opponent were found. There was a significant skill by opponent's gender interaction for competitive responses,  $F(1, 43) = 8.10, p = .007$ . Post hoc Newman-Keuls tests showed that novice participants made significantly more competitive responses when the opponent was a female and that experienced participants made significantly more competitive responses when the

opponent was male, ( $p < .05$ ) (see figure 1). There was also a significant gender of participant X skill level X gender of opponent interaction,  $F(1, 43) = 10.39, p = .002$ . Novice male participants who competed against a male were least likely to make competitive responses. Novice males made more competitive responses when competing against women than against males. Novice males also made more competitive responses when competing against a female than experienced males competing against women. Experienced male participants make more competitive responses when competing against a male than did when competing against a female. Experienced male participants made more competitive responses when competing against a male, than novice males competing against males, ( $p < .05$ ) (see figure 1).

Figure 1. Graph indicates that novice participants are more competitive when their opponent is female and that experienced participants are more competitive when opponent is male.



To determine if there were gender differences in attributions patterns, participants were asked who played the better game of Eight Ball. If participants indicated that they played the better game, then that response was considered to be an egotistical attribution. The number of egotistical attributions was divided by the total number of responses to determine the percentage of egotistical responses. Males were overall more likely than females to make egotistical attributions when competing. Participants were more likely to make egotistical attributions when their opponent was of the opposite sex. This is true for both males and females (see Table 1).

Table 1. Egotistical Attributions as a Function of Gender of Participant and Gender of Opponent.

Females	14.00%
Males	37.78%
Opponent opposite sex	32.14%
Opponent same sex	13.04%
Males vs. opposite sex	46.15%
Females vs. opposite sex	20.00%
Males vs. same sex	20.00%
Females vs. same sex	7.70%

Note. The score is measured as the percentage of time egotistical attributions were made.

Experienced participants made egotistical attributions more often than novice participants. There does not appear to be a gender difference in how experienced participants made egotistical attributions. However, females with experience who competed against the opposite sex were more likely to make egotistical attributions than when competing against the same sex. This was also true for male participants with experience. They were more likely to make egotistical attributions when competing against the opposite than when competing against the same sex. (See Table 2).

Table 2. Egotistical Attributions as a Function of Skill Level, Gender of Participants, and Gender of Opponent

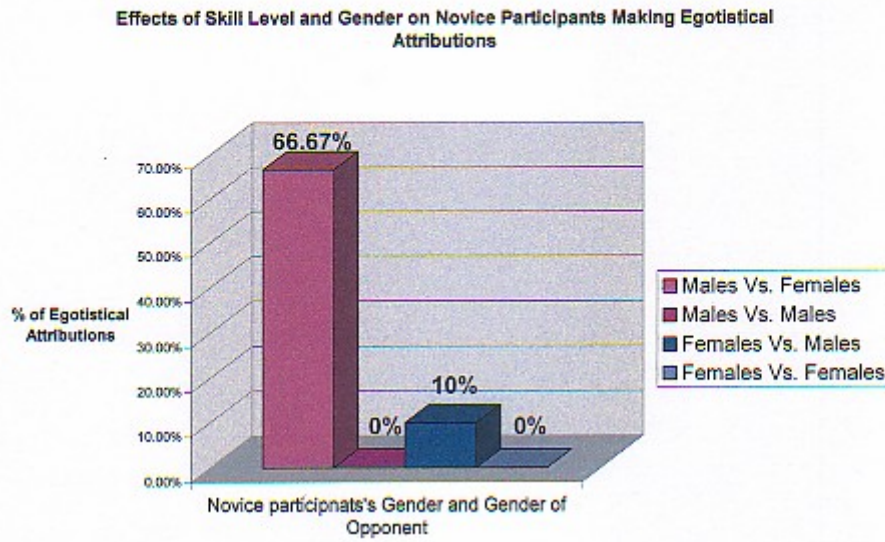
Experienced	33.33%
Novice	12.50%
Females with experience	30.00%
Males with experience	35.29%
Females with experience vs. males	40.00%
Females with experience vs. females	20.00%
Males with experience vs. females	40.00%
Males with experiences vs. males	28.00%

Note. The score is measured as the percentage of time egotistical attributions were made.

Novice males who competed against the opposite sex made egotistical attributions more often than novice females when competing against the opposite sex. Novice participants who

competed against the same sex did not make egotistical attributions. Novice male participants who competed against the opposite sex are far more likely to make egotistical attributions than any other novice participant (see figure 2).

Figure 2. Graph indicates that novice male participants competing against the opposite sex made egotistical attributions more than any other novice group. Novice female participants made egotistical attributions when competing against the opposite sex less often than males. Novice participants competing against the same sex (male and female) did not make egotistical attributions.



## Discussion

The purpose of this study was to determine if the gender of the participant, gender of the opponent, or skill level had an effect on how participants would display competitive attitudes and make attributions. Skill level by itself did not affect how participants displayed competitive attitudes. Results indicated that novice participants were just as competitive as experienced participants. These findings may be due to the idea that participants who are not experienced at shooting pool may be experienced at other competitive activities. It could be that being experienced in one competitive activity could cause people to be competitive in areas where they do not have experience. Also, the experienced group contained a wide range of experienced participants. Some participants compete in local pool leagues and some compete for a living. Having a larger sample would allow this group to be broken down into more defined levels of experience.

In examining how participants displayed competitive attitudes, the gender of the participant did not have an effect. There was no evidence to support Kagan's (1964) research. Kagan had found evidence that males were more competitive than females when challenged by an individual (male or female) or problem. Freischlag (1971) found evidence to support these findings only when individuals were competing against the same sex; however, females became more aggressive when competing against the opposite sex. The findings of this study indicate that gender of opponent alone does not affect the level of competitiveness displayed.

Results did not support the idea that females would be less competitive when competing against the opposite sex. Results were not significant; however, when females were competing against the opposite sex (15 participants), 203 competitive responses were given. When females competed against the same sex (13 participants), 116 competitive responses were given. These results show trends that are similar to Freischlag's (1971) findings; females were more competitive when competing against the opposite sex. If the sample size were larger, a significant difference may have been found.

Evidence was found that the gender of the opponent did have an effect on competitive attitudes when looking at the skill level of the participant. It was found that novice participants displayed competitive attitudes more often when competing against females than males and experienced participants displayed competitive attitudes more often when competing against males than females. It may be that participants with no experience competing in the game of pool would assume that women are not as competent as men to shoot pool. They may believe that if they stay focused and play aggressively they might have a chance; however, when competing against a male they may assume that no matter what they do they will lose, so they just give up. Many of the novice participants obviously gave up. For example, one participant stated, "Hang my head, realizing I am beat...She's gonna win... Everyone always beats me at pool.... I suck." Experienced participants may believe that it will be easy to win against a female, but they feel that they will need to be focused or aggressive (competitive) to win against the more competent (in their view) male. These beliefs may stem from the idea that men are physically stronger, in many cases, than women, thus giving men the advantage in physical sports. Some participants have suggested that it is social constructs keeping women the minority in billiards. These beliefs seem to be supported because men are the prominent figures we see shooting pool. People may assume that men must be better than women because more men play. Most do not give consideration to poolrooms being unwelcoming to women. It is believed that this inconvenience keeps women from learning at an early age. Most men who achieve a high level of success start shooting at a very young age. Women tend to pick up the game later in life, which restricts the amount of time that is spent developing their skill. The above findings are especially true for male participants; it may be because women participants, even if they are not experienced, would know that they are just as capable (physically) to compete in the game of pool. In future research, it could be determined whether it is the assumption that men are physically stronger and therefore better at sports that are causing these differences to occur. Some participants could be given a survey with information about women being competent competitors in the game of pool while others receive this survey only.

Results appeared to support the hypothesis that experienced participants were more likely than novice participants to make egotistical attributions. This finding is most likely due to the idea that experienced participants care more about winning than novice participants. They are less likely to give up a win or admit that they did not play the better game. It is true that participants competing against the opposite sex are more likely to make egotistical attributions. This is especially true for experienced male participants. Stephan et al., (1976) found that females competing against males did not make egotistical attributions. The findings in this study contradict the previous findings that female participants, especially experienced female participants, made egotistical attributions when they competed against the opposite sex. This contradiction is most likely due to the changing roles and stereotypes of women. It would be

interesting to see if Gill's (1980) study of attribution patterns in team sports would be affected by these changes, which would add to the evidence that changing gender roles have had an effect on how men and women compete. This could be determined, in the future, by telling some participants that they are on a team while giving others this survey. This manipulation would reveal whether Gill's (1980) results could be replicated; her results suggest that gender does not affect attributions when competing on a team.

Results did not support the idea that the more experienced the participant, the less likely gender would bias them. It may be that gender did not bias those who are experts, who shoot pool for a living, but it did for those who shoot in local pool leagues, who are better than average. A larger sample would allow for the experienced group to be broken down into these more defined groups. Those who shoot pool for a living at the expert level surely have competed against many competent women and know that neither gender has an advantage when shooting pool.

Kagan (1964) and Freischlag (1971) found that females were not competitive when competing against females. Freischlag found some evidence indicating that females were aggressive when competing against males. Stephan et al. (1976) found that females did not make egotistical attributions when competing against males. These findings were not supported in this study. These contradictions are most likely due to changes in sex role prescriptions. Kagan's, Freischlag's, and Stephan et al.'s studies were conducted before the impact of Title IX could be seen. Title IX has changed women's participation in sports. The findings in this study indicate that today, most likely because of the impact of Title IX, it is more acceptable for females to display competitive attitudes and make egotistical attributions.

### *Future Directions*

In future studies, it would be better to use a Wei table to diagram the game. A Wei table is an online source (can be found by entering Wei table into a search engine) that allows you to set up a pool table to demonstrate shots from an objective point of view. Players need more information than given in the photographs to know what is going on in the game. The Wei table is a more effective way to show exactly what is going on in a game of pool. Another aspect to consider in future studies is that the use of birthdays as a grouping variable seemed to confuse and aggravate people. The expert participants have commented about the use of birthdays. They did not understand that it was used as a way to randomly place participants with an opponent. One person decided not to participate because they thought that the purpose of the study was to find a connection between astrological signs and game strategy. There are other ways to randomly place people that would cause less controversy. Also, people responded with comments that suggest that how the thoughts, feelings, and actions questions were worded made it hard to respond. It might be better to ask participants to describe their cognitions as they are playing a game of pool.

### *Conclusions*

The results of the present study may be helpful to understand the differences in how men and women compete. Situations where men and women will compete against one another will become more common. Understanding what situations make us behave more competitively will be helpful in the work place; moreover, this knowledge could be used by employers to improve

productivity.

Also, these findings may provide insight about how pool players decide whether to compete in competitions that include the opposite sex or that exclude the opposite sex. We now know that social reasons, such as money and sponsors, are not the only factors affecting female participation in billiards. The gender of the opponent could have an effect on a person's game. Although the reason why this effect occurs is due to social constructs, it could still have real consequences on an individual's game.

Another interesting aspect of this study is that we are able to see the effect of Title IX. It is obvious from this study that the increased female participation in sports, which was caused by Title IX, has had an effect on how competitive attitudes of women are displayed. This is further evidence to support the idea that many differences that occur between men and women are due to socialization.

Also, when interpreting the results of this study it is important to understand that gender is part of an interrelationship. Wade and Tavis (1999, p. 15) suggest "the lives of women and men differ from one culture to another. The anatomy of sex is universal, but the behaviors, rights, and responsibilities considered appropriate for males and females are social inventions that vary enormously around the globe. These gender arrangements are not arbitrary, but rather depend on the economic realities and other practical conditions of life." When conducting gender research race, ethnicity, and economic status of the participants must be taken into consideration. Due to the small number of participants in this study it was not possible to do so. The results of this study, which attribute differences to gender, may actually be due to ethnicity, economic status, or/and or other conditions of life.

The results of this study have found males do not display competitive attitudes more often than females, unless they were competing against the opposite sex. Additionally, it was found that participants expressed competitive attitudes more often when their opponent was of the opposite sex depending on skill level and gender of participant, and experienced participants did not express competitive attitudes more than novice participants, unless their opponent was of the opposite sex. Results pertaining to egotistical attributions showed that males were more likely to make egotistical attributions than females. Also, participants who were competing against the opposite sex were more likely to make egotistical attributions than those who competed against the same sex, and experienced participants were more likely than novice participants to make egotistical attributions.

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