DOCUMENT RESUME

ED 162 209 CG 012 958

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TITLE Causal Attributions for Women and Men and Sports Participation.
PUB DATE 76
NOTE 24p.; Paper presented at the Annual Convention of the American Psychological Association (84th, Washington, D.C., September 3-7, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Athletes; Athletics; *Attribution Theory; Beliefs; *Motivation; Participation; Perception; *Psychological Characteristics; Research Projects; Self Concept; *Sex Differences; Sportsmanship; Undergraduate Students

ABSTRACT

Examined were causal attributions for women and men and sports participation. In accord with previous academic research, athletes of both sexes were expected to attribute successes more to their abilities and efforts and failures to lack of effort, as compared to a group of non-athletes. Also examined was the differential use of team and individual attributions by males and females. Male college athletes (N=50) and female college athletes (N=33) were administered an attribution questionnaire. Male (N=37) and female (N=17) psychology students served as the control. Results analyzed with a t-test and analysis of variance indicated that the majority of attributions were team attributions; athlete attributions were unstable with great use of effort and mood attributions; female athletes tended to attribute their outcomes differently from male athletes; college athletes tended to be more loyal to their teams than non-athletes; and sex differences in attributional patterns tended to override the factor of being an athlete. Results suggested that college athletes do not have strong differences from other college students in the way they view sports; rather, the major differences are between men and women. (KA)

CAUSAL ATTRIBUTIONS FOR WOMEN AND MEN AND SPORTS PARTICIPATION

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Paper presented at the annual meeting of the American Psychological Association, Washington, D. C., 1976.

Causal Attributions for Women and Men and Sports Participation

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Research suggests that one's beliefs about why good and bad things happen has important implications for whether one will attempt certain activities. People who feel they can do well in school if they try are more motivated to perform well than someone who believes that everything is the result of luck (eg., Weiner, 1972). We hypothesize that sports participation is also dependent upon certain belief patterns. If girls are socialized to believe that girls can't perform well at sports, they will be less likely to participate. Similarly, if boys believe that good performance is the result of natural talent, they may be less likely to become involved in athletics than if they feel effort is also important.

The causal explanations given for everyday events have been investigated within a body of research known as attribution theory. Attribution theory deals with causal explanation, how people answer questions beginning with "why"? (Kelley, 1973). Questions about why events occurred are asked and answered daily in all aspects of everyday life; they are especially important in sports situations because of the competitive component, the winning-losing aspect of games. Attribution theory focuses on both the process of making causal inferences, and implications of making one or another attribution. The

attribution one makes is seen as having behavioral and emotional consequences. Causal attributions affect expectancies for the future, and individual's choice of future performance, the pride or shame on experiences, and one's subsequent performance levels (Weiner, 1974). For example, assume that a runner feels that she lost the race because she had a bad start. She feels shame in her failure, but also feels that she could win a subsequent race. She may spend extra time practicing or exert more effort in training to insure a better performance in the next race. Attribution theory is a common sense analysis of such daily situations; however, it is also a systematized and scientific investigation of cognitive processes.

Although much of the research relating to attribution theory has focused on academic success and failure, the basic principles and concepts appear to be applicable in a wide variety of settings (Carroll & Payne, 1975; Elig & Frieze, 1975).

Attributing the Causes of Success and Failure

Weiner and his associates (e.g., Weiner, 1974; Weiner, Frieze, Kukla, Reed, Rest and Rosenbaum, 1971) have done extensive research demonstrating the importance of attributions of beliefs about why success or failure occurs in understanding achievement-oriented behavior. Most of this research concerns the attributions made by an individual about his or her own successes and failures and how these attributions influence emotional reactions, future expectancies and subsequent achievement strivings. It is assumed that people will be more likely to attempt tasks where they feel they have a high expectancy of doing well and that they will desire to maximize positive feelings about success and minimize negative feeling about failure. Both affect and expectancy are determined by the causal attribution made about a particular event was a success or failure.

A diagram of the attributional process is shown in Figure 1. The attributional process begins with a particular win or loss. After the outcome is established, the athlete utilizes available information, such as his or her expectancy for success at this task, past history of successes and knowledge of how well other people did, to determine the cause of the outcome. People have well-established patterns of making causal attributions in familiar situations so that extensive information processing is not necessary (see Frieze, in press-a). Thus, for example, a highly competent male may see his high abilities as responsible for his achievement successes without having to consider the particular circumstances of any one event (Frieze, in press-a). Such patterns may well exist in athletic events but they have not been empirically demonstrated.

Insert Figure 1 about here

For any situation there are many possible reasons why a particular success or failure might occur and, therefore, many causal attributions which can be made (Heider, 1958). The four most studied causes of achievement outcomes are ability, effort, luck and task ease or difficulty (Weiner, et. al., 1971). Thus, a person may succeed at an exam because of his or her high ability, trying hard, good luck and/or the fact that the task was relatively easy. Failure may result from low ability, not trying sufficiently hard, bad luck and/or task difficulty. More recent work (Elig and Frieze, 1975; Frieze, in press-b) has indicated that other causal factors are frequently employed to explain the success and failures of others as well as for oneself. These include stable effort or a consistent pattern of diligence or laziness, other people who may aid or interfere with performance, mood and fatigue or sickness, having a good or poor personality and physical appearance (see Elig and Frieze for a more complete definition of these causal elements in achievement and social situations).

Dimensions of Causal Attributions

Causal attributions in achievement settings can be classified along three dimensions: internal-external; stable-unstable; and intentional-unintentional (Elig and Frieze, 1975). Ability, effort, mood, personality and knowledge are causes originating within or internal to the individual, while task difficulty, other people's help or hurt and luck are causes within the environment or external to the individual. This internal versus external dimension of causality (the I-E dimension) has been widely investigated, especially in terms of individual differences in stable tendencies to make either internal or external attributions (see reviews by Rotter, 1966; Throop and MacDonald, 1971). This dimension has been shown to be particularly important for affect. More pride or satisfaction is reported by people who attribute their successes internally than if the attribution is made to an external cause (Weiner, Heckhausen, Meyer and Cook, 1972; Weiner, 1972). These same studies have shown that internally attributed failures lead to more shame or dissatisfaction after failure. We expect that apparently internal attributions such as training, trying hard at a game, having a good team or being a good athlete or being up for the game will affect pride in a similar way as compared to more external causal categories such as luck, the coach, the other team or the referees. Table 1 shows our hypothesized classification system.

Insert Table 1 about here

A second dimension along which the various causes may be differentiated is in their stability. Ability, training, or the coach, are relatively stable causes, while trying hard at a particular game, mood and luck may be highly changeable over time.

If success at a particular type of sport was due to a person's high ability, one would anticipate continued success for that person in the same sport. Similarly, if a failure was due to lack of ability, continued failure would be anticipated. Conversely, unstable causes lead to acknowledging the possib

ility of change. Failures attributed to bad luck or lack of trying may result in expectations for eventual success since bad luck might finally change or trying harder might lead to future success.

In achievement settings, the stability of the causal attributions has been found to relate to expectancies for the future (e.g., McMahan, 1973; Valle and Frieze, 1976; Weiner, Heckhausen, Meyer and Cook, 1972). Stable attributions lead to expectancies for continued success or failure consistent with the last outcome experienced. Unstable attributions lead to expectations for changing outcomes.

The two dimensions of internality and stability were first conceptualized by Weiner et al., (1971). Rosenbaum (1972) suggested that a third dimension, intentionality, might be added to the two-dimensional system to differentiate between effort and mood as well as to more fully understand all the various causal attributions. An attribution is considered to be intentional to the degree that the person is perceived to have control over his or her actions. Thus, ability and mood are factors within the person over which that person has little control, and events attributed to these would be unintentional. However, the athlete is perceived to have control over the effort he or she exerts so that attributions to effort are intentional (as well as being internal). The intentionality dimension appears to be related to reward and punishment, with most reward and punishment given for performances attributed to internal, intentional causes although further research is needed to clarify these relationships, especially in sports situations. It would appear that successes attributed to really wanting to win and trying hard (intentional) would result in pride, and reward or reinforcement from the coach and others.

Thus, the study of causal attributions has been shown to have important implications for understanding achievement-oriented behavior. Certain causal attributions (high ability or effort) lead to maximal pride in success and high

expectancies for future success while others (luck) mean little pride and uncertain future expectancies. Failures attributed to low ability produce shame and little expectancy for success in the future. Poor scores attributed to lack of effort, however, may be seen as changeable in the future and effort attributions are therefore motivating (eg., Frieze, 1975; Weiner, 1972).

Athlete Attributions

A number of studies have looked at attributions made by athletes. Their results do tend to replicate some of the general findings from academic settings. For example, a general finding of attribution research has been that success is attributed more to ability and effort while failure is attributed more to luck and the difficulty of the task (Frieze and Weiner, 1971). This tendency has also been demonstrated in sports situations. Roberts (1975) reports that Little League players rated effort and ability higher when winning and luck higher when losing. In a study by Iso-Ahola (1975) internal attributions (ability and effort) were given for both clear-win and bare-win baseball games. However, clear losses were attributed to task difficulty and effort.

A question that has been emphasized by attributional research dealing with sports attributions has been the use of team attributions as compared with the use of the individual attributions more typical of the academic achievement attributional research. In a sports situation, the individual often experiences success and failure together with teammates. Only a few studies have addressed this question of how group and self attributions differ, and to what extent group outcomes are attributed to individual factors, and individual outcomes to group factors. Shaw and Breed (1970) report that when members are accused by others for group failure, they tend to underevaluate group abilities. Dustin (1966) also found that team members reacted to the team's poor performances in a manner that prevented declines in their own ego

levels. Other studies have demonstrated a tendency on the part of group members to overevaluate group products (Blake & Mouton, 1962), and that this overevaluation is increased with competition and increased importance of the situation (Ferguson & Kelley, 1964).

In a study utilizing both team and individual attributions for game wins and losses, Roberts (1975) found few differences for team versus individual causal attribution choices. However, there was a significant interaction between individual and team effort attributions and outcome indicating that when the team lost, players considered the team effort lower than when winning; however, individuals considered that they tried just as hard when the team lost as when the team won. This may be viewed as a self enhancing type of attribution, or may be seen as resulting from direct knowledge of one's own effort, while other's effort is inferred.

Iso-Ahola (1975) also found that team and individual attributions were used in similar ways. In this study, players relied on team outcome to assess personal ability and effort, rather than basing these self attributions on estimates of their own performance. That is, attributions about one's <u>own</u> ability or effort were based on whether the <u>team</u> won or lost. Neither objective or subjective estimates of individual performance significantly affected the attributions of the players.

<u>Sex differences in Attributions</u>

Within the existingliterature, certain sex differences in attributions have been predicted and investigated. In general women and girls have low beliefs in their own ability, and lower expectations of success than males (see Frieze, Fisher, Hanusa, McHugh and Valle, in press). Attributional patterns of women have been predicted given these low expectancies of women in general (Feather, 1966; Frieze and Weiner, 1971). According to the attributional

model, if a woman expects to do poorly, but succeeds, she is likely to attribute the outcome to an unstable cause such as luck. She then would not increase her expectancies for success, and would feel little pride in her success (see Figure 2). When a female with low expectancies fails on a task, she tends to attribute it to lack of ability resulting in a high egreee of shame and low expectancies for future success. Thus, low expectancies may be self perpetuating when they lead to attributions which maintain their accuracy.

Insert Figure 2 about here

As discussed by McHugh, Duquin and Frieze (in press), a pattern parallel to the pattern for women in general may be predicted for women athletes. Based on women's internalization of beliefs in their own physical inferiority (Neal & Tutko, 1975) female athletes may attribute success to external factors such as luck, and failure to low ability. However, the female that consistently attributes her failure in sport to her own inability, would probably discontinue her sports participation in favor of some more rewarding activity. And a female athlete that attributes her success in sports to luck would probably not develop the internal confidence needed for higher levels of sports experience (Neal & Tutko, 1975). Thus, this pattern may be found in young girl athletes or women in general, but the female that makes this type of attributions would probably not be found in advance athletic programs.

Alternatively, these societal attitudes that allude to females' natural inability in sports (Tyler, 1973; Allen, 1973) may produce a pattern of external attributions. The combination of the attitudes that females must overcome physical handicaps in order to succeed, and the idea of sport as demanding and dangerous, may result in females emphasizing task difficulty in their attributions. When they do succeed, the task must have been easier than most sports events, perhaps becuase of equally unskilled competition. And when girls are led to believe that sport is too rough and tough an activity for them, then female failure in sports becomes understandable and acceptable because

the task is viewed as too difficult for them. Thus, like women in other "masculine" areas, the female athlete may have a tendency to make more external attributions than male participants. External attributions like task difficulty and luck decrease the responsibility one admits for outcomes. Women are discouraged from seriously pursuing sports excellence (Colbert & Williamson, 1973) and serious participation in competitive sport is viewed as unfeminine. Thus, the female athlete that reports playing just for fun, and winning by luck or task ease conforms more to society's view of femininity than the female who admittedly tries very hard.

A third prediction of female athletes' attributional patterns could be made based on the fact that female athletes have been found to be generally self confident, autonomous, persevering, and achievement oriented (Gerber, Felshin, Berlin, Wyrich, 1974; Tyler, 1973). The prediction based on these studies might be that the attributions of the female athlete would reflect the attributional patterns of the achievement oriented women in general. Preliminary studies have suggested that highly motivated women employ more effort attributions for both success and failure than low achievement oriented women (Feldman-Summers & Kiesler, 1974; Frieze, 1973). Bar-Tal and Frieze (1976) also found that high achievement motivation was related to higher estimates of ability for both male and female subjects, but that the finding was stronger for men. Greater use of effort attributions by female athletes might also be expected on the basis of the additional barriers to participation that they must hurdle in addition to the standard demands of athletic endeavors. Neal and Tutko (1975) discuss the way in which women athletes do not receive positive reinforcement by way of social approval and encouragement in the pursuit of physical excellence, receive inferior and less training, lack equipment and adequate facilities, and receive less financial aid and backing. Thus it seems likely that successful participation does require more effort on the part of women. Neal and Tutko (1975) also suggest that beliefs about female unsuit-

ability present a psychological barrier to physical performance for women. They suggest that women have no concept of their own abilities since they have been indoctrinated with a view of themselves as having limited potential. These factors may undermine the ability attributions of female athletes, causing them to rely on effort as an explanation of their successes and failures.

Predictions for Athlete Attributions

College athletes appear to us to be highly motivated to perform well in sports. Thus, they should resemble those with high achievement motivation for academic situations in their attributional patterns for sports success and failure. In accord with previous academic research, athletes of both sexes were expected to attribute successes more to their abilities and effort and their failures to lack of effort as compared to a group of non-athletes. Athletes were expected to be more motivated to perform well in sports and to have high estimates in their own sports abilities. This presumably would make them similar to achievement motivated students and should then result in their showing the high motivation attribution patterns. If the successful athlete attributes his or her success to natural sports ability and training, he or she will be confident of future successes and feel proud of wins. If he or she believes losses are the result of not trying hard enough, he or she will be motivated to train harder and try harder at the next event.

Another area of concern was group or team attributions. The studies which have investigated team attributions in sports situations have used all male subjects. There is evidence from academic situations that males and females make differential use of team and individual attributions. In a classroom setting, Zander, Fuller and Armstrong (1972) found that male subjects indicated more pride in the group when it succeeded and had high ability, and more shame in the group when the group failed and had low ability. Females on the other hand, expressed more shame in self when the group failed and had

expended low effort. In this study then, males attended to ability cues more than females, while females attended more to effort cues. And for the males, group ability affected group pride and shame, but for the females, group effort affected personal or self pride and shame. Differential use of team and individual attributions were also analyzed but no specific predictions were made in this area.

In order to test these predictions, a group of college athletes were tested to see how they would attribute their success or failure in either a swimming meet or a basketball game. These sports were chosen as sports where men and women do actively participate and which are not strongly sex-typed. A group of introductory psychology students served as a comparison group. It was predicted that women from an introductory psychology class would make attributions about sports analogous to the low achievement pattern for exam situations while men from psychology would more resemble the high achievement pattern.

Method

A group of 50 male college athletes and 33 female college athletes were administered an attribution questionnaire during an evening dining period for college athletes. Thirty seven male and 17 female psychology students completed questionnaires as part of an experiment participation requirement for an introductory psychology class.

Swimming and basketball forms were randomly assigned. Each person responded to a series of attribution questions about a success and a failure.

Results

Results were analyzed in two ways. First, male and female athletes were compared with a series of t-tests for each causal attribution rating. The results of these analyses are summarized in Table 2. Significance levels and t-values are not repeated in the text for the sake of brevity. Secondly, a series of analyses of variance were done to compare males and famales and athletes and non-athletes. F-values and significance levels are referred to in the text. Complete analysis of variance tables are available from the authors.

Athletes

The factor most frequently rated as a cause of success by both sexes was "trying very hard" as can be seen in Table 2. Other highly rated causes for success were having a good coach, having good team members, the team trying hard, your training hard, the team wanting to win and the team being up for the meet or game. Thus, the majority of attributions made were team attributions rather than individual ones even though both types of causes were provided. Not training enough, not trying and the team not wanting to win and not being up for the meet, were most highly rated as causes of failure. Thus, there seemed to be more individual blame for failure rather than blaming the team.

Insert Table 2 about here

The athlete attributions also tended to be unstable with great use of effort and mood attributions. Thus, athletes appear to see their wins and losses as changeable. This may be a necessity for a college athlete who generally experiences a good number of wins and losses. Stable attributions may be more typical of academic situations where people do show more consistent patterns of doing well or poorly.

Sex Differences. There were relatively few statistically significant sex differences in attributions. As expected, males saw their ability as a cause of success more than females. Males also saw their wins as more influenced by training hard than did females. Those are two internal attributions that should result in pride and high expectations for the males. The greater use of ability attributions by males is not surprising in view of the previous discussion of societal attitudes, and the fact that this result has commonly been found in other areas of achievement. However, males also rated "the other team played poorly," and "your team was lucky," higher than females. These attribtuional factors are external and unstable, and have often been predicted as a female pattern because of their implications for low future expectancies. A possible explanation of these external attributions of males for success may be that in teaching male athletes to make defensive external attributions for failure (Neal & Tutko, 1975), coaches may be inadvertantly undermining the males usual assumption of responsibility for success.

Females rated the encouragement of their teammates higher than males did. This finding may be related to earlier findings that female athletes have a strong affiliative motive for sports participation (Gerber, et al., 1974).

Following failure there was a trend for males to make more defensive types of attributions including "the other team had the home court advantage", "the crowd was on the other team's side," "you were unlucky," and "there are few good players on you team." Neal and Tutko (1975) suggest that because females are not inhibited in their expression of emotion that they can handle failure better than males. Defensive attributions such as blaming the coach, other players, or the referees result from unexpressed sorrow and frustration at losing. They also suggest that the male coach often serves to perpetuates defenses against defeat by training athletes to respond in this way which may be damaging physiologically.

This study supports the prediction that female athletes attribute their outcomes differently than male athletes. However, there is little evidence that supports the prediction that attributions of female athletes mediate low expectancies or undermine their pride in success. Contrary to some predictions, these female athletes appeared to make slightly more internal attributions than male athletes for both success and failure, although females rated ability attributions lower. The demonstrated pattern, of female attributions then, is most similar to that of the achievement motivated female with effort being the most important causal factor. This pattern is viewed as more desirable in terms of its implications for pride and shame and future expectancies than the external attributions demonstrated by the male athletes.

Athletes Compared to Nonathletes

Athlete and non athlete data was compared through a 2X2 (athlete/nonathlete X sex) analysis of variance for each attribution. Generally the groups were similar in their uses of causes. Nonathletes blamed the low ability of other team members and the high ability of the other team more for losses (F_1, 115= 7.38, $p < .01$ and $F = 4.76$, $p < .05$). Athletes were more likely to attribute failure to favortism in the judges and bad luck ($F = 4.30$, $p < .05$ and $F = 7.75$, $p < .01$ respectively). There were no significant differences for success although there was a trend for athletes to rate training higher ($F = 3.08$, $p < .10$) and for nonathletes to rate the poorness of the other team ($F = 3.22$, $p < .10$) and good team luck ($F = 2.35$, $p < .15$) higher. These differences would suggest that college athletes are more loyal to their teams than the nonathletes would be.

The major differences which emerged from this set of analyses were sex differences. When all males and females (both athletes and non-athletes) were combined, several results reached acceptable significance levels or indicated definite trends.

For success, males rated their ability, ($F = 5.95$, $p < .05$), the poorness of the other team ($F = 7.06$, $p < .01$), team luck ($F = 6.52$, $p < .05$) and hard training ($F = 3.31$, $p < .10$) higher than females. Females rated the team trying hard ($F = 3.61$, $p < .06$), God wanting a win ($F = 2.95$, $p < .10$) higher. Thus, males used more stable causes for success while females again valued team encouragement. These trends were similar to those for the athletes and suggest that sex differences in attributional patterns for sports override the factor of being an athlete. Similar results were found for failure. Males rated team low ability ($F = 4.32$, $p < .05$), the other teams' home advantage ($F = 2.71$, $p < .10$) and bad team luck ($F = 3.86$, $p < .05$) higher than females.

Conclusions

Results suggest that college athletes do not have strong differences from other college students in the way they view sports. Rather, the major differences are between men and women. This may reflect differential socialization for sports given to the two sexes. For boys and men, sports participation is part of their male role and they are expected to perform well. Sports, either in the form of direct participation or watching others perform, is a common activity for males of all ages in our society. Girls and women are not as exposed. Coaches and teachers discourage their participation or view it as only recreational and therefore unimportant. If women and girls are to have equal opportunity, changes in such attitudes are clearly needed (see McHugh, Duquin and Frieze, in press).

More research is needed to understand how attributional patterns inhibit or encourage sports participation for men and women.

References

Allen, D.J. Self concept and the female participant. In D.J. Harris (Ed.), Women and Sport: A National Research Conference. University Park, Pennsylvania: The Pennsylvannia State University, 1972.

Bar-Tal, D. and Frieze, I.H. Achievement motiavtion for males and females as a determinant of attributions for success and failure. Sex Roles, in press.

Blake, R.R. and Mouton, J.S. Overevaluation of one's group product in intergroup competition. Journal of Abnormal and Social Psychology, 1962, 64, 237-238.

Carroll, J. and Payne, J.W. Judgment of criminality: an analysis of the parole decision. Paper presented at APA, Chicago, 1975.

Dustin, D. Member reactions to team performance. Journal of Social Psychology, 1966, 69, 237-243.

Elig, T. and Frieze, I.H. A multi-dimensional scheme for coding and interpreting perceived causality for success and failure events: The CSPC. JSAS: Catalog of Selected Documents in Psychology, 1975, 5, 313. MS #1069.

Feather, N.T. Effects of prior success and failure on expectations of success and subsequent performance. Journal of Personality and Social Psychology, 1966, 3, 287-298.

Feldman-Summers, I. and Kiesler, S.B. Those who are number two try harder: The effects of sex on attribution of causality. Journal of Personality and Social Psychology, 1974, 30, 846-855.

Ferguson, C.K. and Kelley, H.H. Significant factors in over-evaluation of own-group's product. Journal of Abnormal and Social Psychology, 1964, 69, 223-228.

Frieze, I.H. Women's expectations of and causal attributions for success and failure. Chapter in M. Mednick, S. Tangri, and L. Hoffman (Eds.), Women and Achievement: Social and Motivational Analyses. Washington, D.C.: Hemisphere Publishing Corp., 1975.

Frieze, I.H. Causal attributions and information seeking to explain success and failure. Journal of Research in Personality, in press (1976). a

Frieze, I.H. The role of information processing in making causal attributions for success and failure. In J.S. Carroll and J.W. Payne (Eds.), Eleventh Carnegie Symposium on Cognition. Potomac, Md.: Lawrence Erlbaum Assoc., 1976, in press-b.

Frieze, I.H.; Fisher, J.; Hanusa, B.; McHugh, M.C.; and Valle, V.A. Attributions of the causes of success and failure as internal and external barriers to achievement in women. In J. Sherman and F. Denmark (Eds.). Psychology of Women: Future Directions of Research. New York: Psychological Dimensions, in press.

Frieze, I. and Weiner, B. Cue utilization and attributional judgments for success and failure. Journal of Personality, 1971, 39, 591-606.

Gelbert, B. and Williamson, N. Women in sport: Part 3, Programmed to be losers. Sports Illustrated, 1973, May 21, 96-98.

Gerber, E.; Felshin, J.; Berlin, P.; and Wyrich, W. The American Woman in Sport. Reading, Mass.: Addison-Wesley, 1974.

Heider, F. The Psychology of Interpersonal Relations. New York: John Wiley, 1958.

Iso-Ahola, S. A test of attribution theory of success and failure with Little League baseball players. Mouvement: Actes du 7 symposium en apprentissage psycho-moteur et psychologie du sport. Octobre 1975.

Kelley, H.H. The processes of causal attribution. American Psychologist, 1973, 28, 107-128.

Kukla, A. Attributional determinants of achievement-related behavior. Journal of Personlaity and Social Psychology, 1972, 31, 86-93.

McHugh, M.C.; Duquin, M.E.; and Frieze, I.H. Beliefs about success and failure and the female athlete. In C.A. Oglesby (Ed.), Women and Sport: From Myth to Reality, Philadelphia: Lea and Febiger, in press.

McMahan, I.D. Relationships between causal attributions and expectancy of success. Journal of Personality and Social Psychology, 1973, 28, 108-114.

Neal, P. and Tutko, T. Coaching girls and women: Psychological Perspectives. Boston: Allyn and Bacon, 1975.

Roberts, G.C. Win-loss causal attributions of little league players. Mouvement: Actes du 7 symposium en apprentissage psycho-moteur et psychologie du sport. Octobre, 1975.

Rosenbaum, R.M. A dimensional analysis of the perceived causes of success and failure. Unpublished PhD dissertation, UCLA, 1972.

Rotter, J.P. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80, 1.

Shaw, M.E. and Breed, G.R. Effects of attribution of responsibility for negative events for behavior in small groups. Sociometry, 1970, 33, 382-393.

Throop, W.F. and MacDonald, A.P. Internal-external locus of control: A bibliography. Psychological Reports, 1971, Monograph Supplement 1, Vol 28.

Tyler, S. Adolescent crisis: sports participation for the female. In D. Harris (Ed.), DGWS Research Reports: Women in Sports. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973.

Valle, V.A. and Frieze, I.H. The stability of causal attributions as a mediator in changing expectations for success. Journal of Personality and Social Psychology, 1976, 33, 579-587.

Weiner, B. Achievement motivation and Attribution Theory. New York: General Learning Press, 1974.

Weiner, B. Theories of Motivation. Chicago: Markum Press, 1972.

Weiner, B.; Frieze, I.; Kukla, A.; Reed, L.; Rest, S.; and Rosenbaum, R.M. Perceiving the Causes of Success and Failure. New York: General Learning Press Module, 1971.

Weiner, B.; Heckhausen, H.; Meyer, W.; and Cook, R.E. Causal ascriptions and achievement behavior: Conceptual analysis of effort and reanalysis of locus of control. Journal of Personality and Social Psychology, 1972, 321, 239-248.

Zander, A.; Fuller, R.; and Armstrong, W. Attributed pride and shame in group and self. Journal of Personality and Social Psychology, 1972, 23, 346-352.

Table 1. A Dimensional Analysis of Sports Attribution [1]

	INTENTIONAL	
	STABLE	UNSTABLE
INTERNAL	training practice continuing desire to win	trying hard unfair play desire to win a particular event
EXTERNAL	coaching continuing teammate support opponent's training	fan support teammate support during event opponent's effort official's bias
	UNINTENTIONAL	
	STABLE	UNSTABLE
INTERNAL	natural ability characteristics that make a good competitor	fatigue nervousness mood or being psyched up
EXTERNAL	opponent's ability task difficulty	home court advantage luck officiating errors situational factors opponent's mood

1. From McHugh, Duquin and Frieze (in press), based on the dimensional analysis of Elig & Frieze (1975).

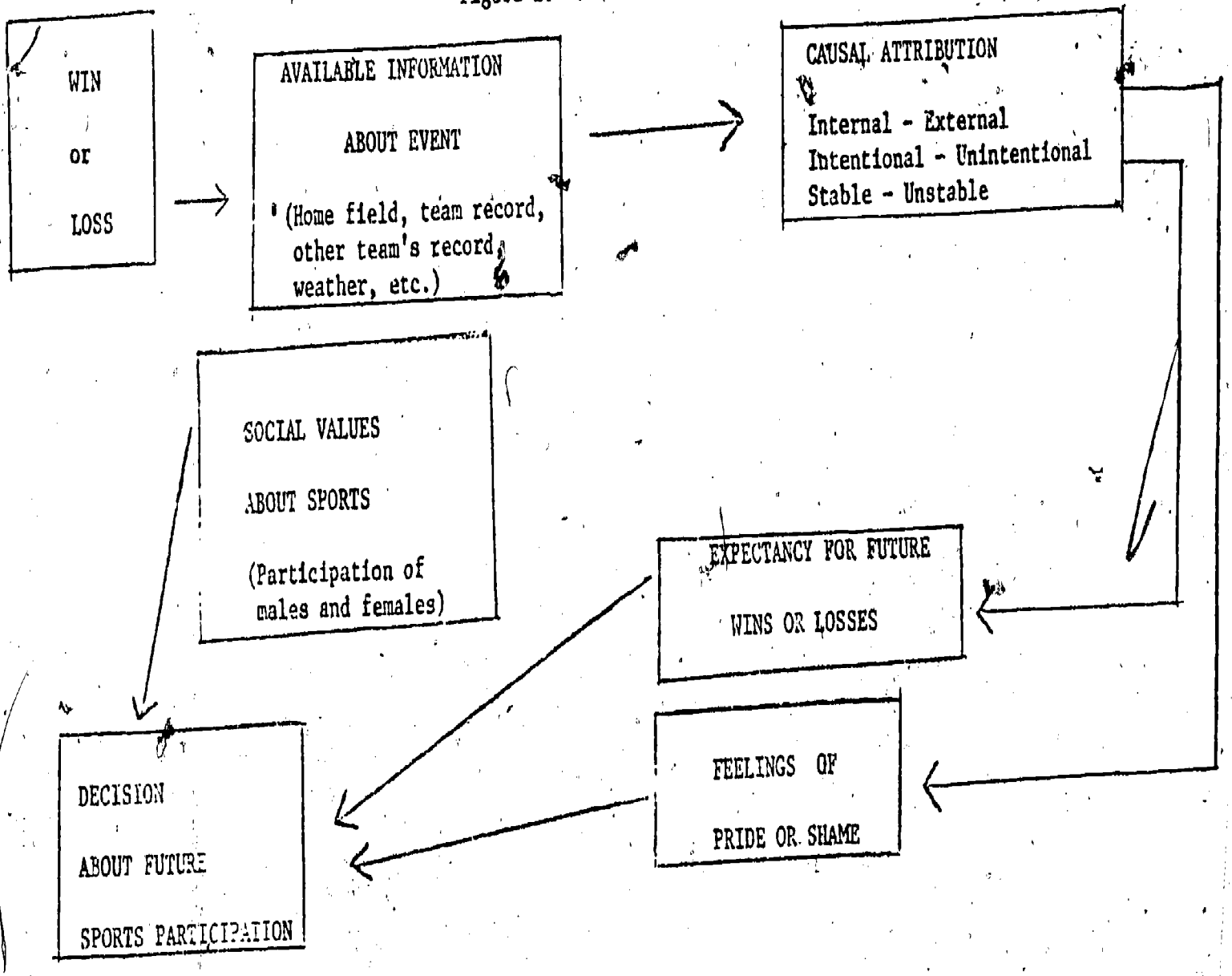
Table Two

Male and Female Athlete Responses

Attribution	Mean Scores Male	Female	t-value	
Success				
You have a good coach	4.0	4.0		____
You tried hard	4.6	4.5		____
There are many good swimmers (players) on your team	4.2	4.2		____
You had the home pool (court)advantage	2.6	2.7		____
You really wanted to win	2.3	2.3		____
Your team tried hard	4.4	4.5		____
You have a lot of natural ability	3.4	2.9	2.22	p<.05
The other team swimmed (played) poorly	2.6	1.9	3.35	p <.001
Your team was lucky	2.1	1.5	3.35	p <.001
You trained very hard	4.5	4.0	1.99	p <.06
The judges (referees) favored your team	2.1	1.9		
Your team really wanted to win	4.2	4.1		____
Your team competed unfairly	1.7	1.7		____
You were lucky	1.9	1.8		____
Your team was really up for the meet (game)	4.1	4.2		____
God wanted you to win	2.4	2.9	-1.39	p<.20
Your teammates encouraged you	3.8	4.3	-2.19	p< .05
Failure				
You have a poor coach	3.0	2.6	1.44	p <.20
You didn't try	3.8	3.7		____
There are few good swimmers (players) on your team	3.3	2.8	1.87	p <.10
The other team had the home pool (court) advantage	2.5	2.1	1.76	p <.10
You didn't really want to win	3.7	3.3		____
Your team didn't try	3.5	3.8		____
You don't have 1 lot of natural ability	2.8	2.5		____
The other team swam (played) very well	3.4	3.7		____
Your team was unlucky	2.2	1.9		____
You didn't train enough	4.2	3.8	1.39	p <.20
The judges (referees) favored the other team	2.4	2.5		____
Your team didn't really want to win	3.8	3.7		____
The other team competed unfairly	2.4	2.5		____
You were unlucky	2.2	1.8	1.66	p <.15
Your team wasn't up for the meet (game)	3.5	3.6		____
God wanted you to lose	2.1	2.2		____
Your teammates didn't encourage you	3.0	3.1		____

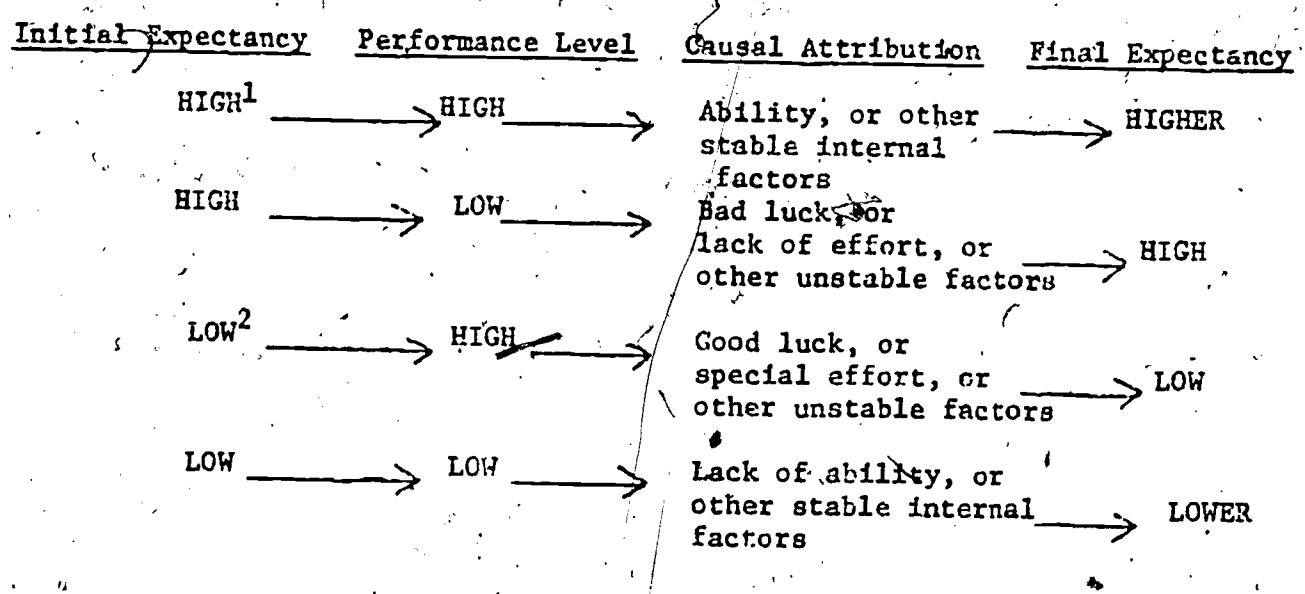
Scales were from 1 - least important to 5 - most important. Basketball variatio listed in parentheses.

Figure 1. The Attribution Process



(From McHugh, Duquin and Frieze, in press. Modified from Frieze, 1975).

Figure 2. Self Fulfilling Prophecies for Expectations



1. Associated with males.
2. Associated with females.

(From Valle & Frieze, 1976)