Chapter II

REVIEW OF RELATED LITERATURE

In the process of prevailing research investigation, a sincere attempt was made to broaden the spectrum of knowledge by going through the various sources of literature and acquainting oneself with various causes attributed by the athletes following different outcomes of the game. Some of the reviewed literature has been located underneath.

Maureen, Anthony and Lisa\(^1\) conducted a study and their purpose was to examine age and gender trends in causal attribution for performance. Youth basketball players (162 females 170 males) ranging in age from 8 to 14 years completed a questionnaire following a game. After rating their perception of performance success, children listed reason for this rating. These reasons were content analyzed by two raters and 13 categories were defined: effort, social aspects, cognitive factors, emotional states, competitive outcomes, athletic ability, Self-Comparison, behaviours, Social Comparison, experience, playing time, injuries and unknown factors children’s were divided into age groups of 8 to 10 and 11 to 14 years. Younger children

cited athletic ability and Competitive outcomes more frequently than older children, who preferred effort, cognitions, emotional states, and Self-Comparison. Females made more attribution to effort and self-Comparison, while males preferred attributions to Competitive outcomes and cognitive factors. Older girls made use of the most sources, with social aspects, Self-Comparison, and behaviour being higher than all other groups, older boys primarily cited Competitive outcomes emotional states, and effort; and younger boys and girls placed primary emphasis upon Competitive outcomes and effort. These findings placed primary emphasis upon Competitive outcomes and effort. These findings demonstrate support for age and gender differences in analyzing the causes of performance outcome as well as previous research on sources of information.

Maureen and Carl\(^2\) conducted a study on children's attributional Dimensions in the physical Domain: the purpose of this study was to (a) Develop a measure appropriate for assessing children's attributions in the physical domain, and (b) determine the relationship between causal dimension and effective responses following a

competitive game. The Causal dimensions Scale II (McAuley et al.; 1992) was used as a starting point and a series of pilot tests were conducted. The final questionnaire contained 12 items (3 for each of the 4 Causal dimensions). Youth basketball players (N = 332) ranging in age from 8 to 14 years completed the measure following game. A confirmatory factor analysis found that the 4 factor structure achieved a good fit, but the correlation between locus of causality and control was .97. A subsequent 3 factor model was found to fit the data quite well (GPI = .970, AGFI = 952). Results of a structural equation analysis to examine the relation between causal dimensions and affect revealed an adequate fit of the model (GFI = .891, AGFI = .851) All three Causal dimensions, stability external and personal, internal control were significantly related to positive affect but only stability was significantly related to negative affect. Only 11.5 percent of the variance in affect was explained by the combination of attributional dimensions. The results provide initial evidence of a valid and reliable scale of children's attributional dimensions in the physical domain.

Shaw, Dzewaltowski and McElroy examined self-Efficacy and Causal attributions as mediators of perceived

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psychological momentum. Participants were randomly assigned to either a repeated success or a repeated failure group in which success or failure was manipulated by having participants compete against a highly skilled confederate. Each participant and confederate performed three sets of 10 basketball free throws. Free throw Self-Efficacy, perceived psychological momentum and Causal dimensions were assessed after each set. Results indicated that the success and failure manipulation were effective in that the responses changed differently over time for both groups. Experiencing competitive success increased perceptions of momentum, experiencing competitive failure decreased perception of momentum. In Contrast, Self-Efficacy only changed in response to competitive success as the participants become more confident. Fourth groups attributed the competitive outcome to internal, personally controllable and internal causes.

Luginibuln1 and Bell\textsuperscript{4} conducted the study to find out Causal Attribution by Athletes. Role of Ego involvement. Male athletes specializing in one of three track and field events jumping sprinting, or throwing - read vignette about another jumper, sprinter or thrower who performed below expectation and a fourth vignette about a pole vaulter who

performed above expectations. After each vignette, subjects were asked to list three factors that contributed to the performance of the target person. It was predicted that when the ego involvement of subjects was high (rating an athlete from their own speciality area), they would be more likely to make situational attributions than when their ego involvement was low (rating an athlete from another speciality area). This prediction was generally supported. Subjects also made more dispositional attributions for the successful performance than for the unsuccessful one. It is suggested that the knowledge of the role played by ego involvement in attributions would help coaches maintain group morale.

McAuley\(^5\) conducted the study to find out the relationship between Efficacy cognitions and Causal attributions for exercise progress and throw impact on effective responses were examined in a sample of previously sedentary middle aged individuals 10 weeks into an exercise progress. Employing theoretical propositions put forth by Bandura (1986) and Weiner (1985), it was hypothesized that exercise efficacy would influence causal attributions and affective responses to exercises participation. Path analysis demonstrated that a greater exercise frequency

resulted in more internal somewhat stable, and personally controllable attributions for perceived exercise progress. More efficacious subjects also attributed their progress to more personally controllable causes. All three causal dimensions were related to positive effect, and efficacy had significant direct and indirect effects on effect. The results are discussed with respect to the need to more closely examine the role affect might play in exercise over time as opposed to single bouts of exercise. Furthermore, the necessity for studying complex interplays of cognitive determinants of exercise behavior is discussed.

Kim\textsuperscript{6} designed this study to determine whether or not individuals maintain self-consistency, in relation to their expressed self-efficacy in attributing performance outcome in a sport competition.

One hundred and forty-six participants in intermediate and advanced tennis classes at the university of Oregon completed self-report on a self-efficacy scale before a one set, single tennis match, and self-reported of perceived effort expenditure and causal attributer, immediately following the competition. Separate multiple regression analyses were conducted for winners and losers to determine

the predictive power of self-efficacy with regard to causal attribution and perceived effort expenditure and the predictive power of perceived effort expenditure on causal attributions.

The results indicated that winners, as hypothesized, tended to maintain self consistency by attributing their success to personally controllable and stable causes. Individuals self efficacy beliefs did not relate significantly to perceived effort expenditure, regardless of performance outcome. However winners who perceived themselves as expending a high effort tended to attribute their success more to internal and less to personally controllable Causes. No differences in these results were observed between males and females.

Zientek and Breakwell\(^7\) investigate how far attributions are changed by new evidence. One hundred and two hockey players (ages between 17 and 45, from 12 teams) Completed questionnaires. Immediately prior to a match, at half-time and at full time, they rated the importance of ability, effort, luck and the cause or difficulty of the game to the outcome of the match. Three hypothesis were tested and supported: (1) internal attributions for winners do not differ from those of losers, (2) Attributions to ability and

\(^7\)C.E. Zientek, and G.M. Breakwell, "Attributional Scheme of players before and after knowledge of Game outcome "Journal of Sport Behaviour 14 : 3 (1991), P. 211.
effort vary over time (3) Attributional patterns occur regardless of whether the subject is asked for winning/losing attributions or for success/failure attributions.

Safton\(^8\) examined the effects of age and sex on children's causal attributions for game outcome over the first ten games of youth sport season. In addition the effects of age and sex on the inter relationship between causal attributions for past outcomes and subsequent expectations for future performance success were examined. Six community league hockey and ringette teams, representing boys and girls between the ages of eight and fifteen years, participated in the study. Following wins both younger and older females and younger males gave predominantly immediate effort attribution, while older males gave predominantly typical effort and mood-type attributions. Both younger and older males gave predominantly immediate effort attributions following losses. Regardless of the stable/unstable nature of causal attribution following a win both younger males and females had high expectation for future success than stable attributions for both younger and older males and females. The results of this study have revealed an apparent link

between stable attributions following losses and lower expectacies for future performance success.

Cicero\textsuperscript{9} in his comparative study, emotionally handicapped males (N = 64) and non-handicapped males (N = 64) were asked to categories their Causal dimension perceptions of selected causal attributions (ability, effort, luck and task difficulty). All subjects were high school male students (mean age of 15.8). It was proposed that emotionally handicapped subjects would perceive the causal dimensions of controllability, stability, and locus of causality different from non-handicapped subjects. All subjects were randomly presented, with one of two hypothetical sport vignettes. Each vignette described a player either winning or losing a handball game. Analysis of variance (ANOVA) was conducted on each causal attribution of ability, effort, luck and task difficulty. All significant findings were reported at the .05 level. The following significant results were reported a) Emotionally handicapped subjects perceived effort as more stable and more uncontrollable than did non-handicapped subjects and b) Emotionally handicapped subjects perceived luck to be more controllable then did non-handicapped subjects. For the

\textsuperscript{9}Phillips S. Cicero, "The effect of sport outcomes and perceived Causal Attributions on the dimensional attributions of emotionally handicapped and non-handicapped high school boys" Dissertation Abstracts International 49:8, (February 1989), P. 2146-A.
losing vignette, the following significant results were reported a) Emotionally, handicapped subjects perceived ability to be more external than did non-handicapped subjects b) Emotionally handicapped subjects perceived effort to be more external than did non-handicapped subjects and c) Emotionally handicapped subjects perceived luck to be more controllable than did non-handicapped subjects.

Hewitt and Jackson\textsuperscript{10} investigated differential attributions for win-loss in competitive tennis. Subjects were 10 men and 10 women from a high school tennis team. Each was asked to consider the last time they won a league match and to weight five factor in determining the outcome. The factors were skill, hustle, off-day, bad conditions, and luck. The weighting was done by asking respondents to distribute 100 points across the five categories in accordance with the importance of that category in determining the outcome. Outcome was a significant factor only for the categories of off-day ($t_{19} = 3.58$, $p < .01$) and hustle ($t_{19} = 2.71$, $p < .05$).

The results suggest that one's own skill and effort are the most likely explanations for a loss. It is interesting to note that a personal win is rarely attributed to an opponent's lack of effort or an opponent's lack of

effort or an opponent's off day but instead is attributed to egocentric elements of personal skill and effort and that a personal loss is rarely attributed to one's own lack of effort but rather to a "face-saving" elements of having an "off-day".

Zientek and Breakwell\textsuperscript{11} conducted the study to explored whether self-serving biases in attribution would operate when subjects were unaware of how successful they had been in a task. To watched video excerpts of hockey games and were asked to predict what would happen next. As hypothesized, success was correlated with regularity decency and level of experiences of playing hockey. Subjects, when asked to explain why they had succeeded or failed even in the absence of any feed back on their actual performance, manifested self-serving bias in attributional patterns. Sex differences were found in attributions irrespective of actual success.

Robinson and Howe\textsuperscript{12} conducted the study to determine which of the Causal dimensions of locus, stability and constability were most clearly associated with mood state


\textsuperscript{12}P.W. Robinson and B.L. Howe, "Causal Attribution and Mood State Relationships of Soccer Players in a sport Achievement setting" \textit{Journal of Sport Behaviour} 10 : 3 (1987), P. 137.
profiles for both personal performances and team win or loss outcomes. The Causal Dimension scale and the profile of mood states were employed to assess attributional inferences and mood profiles over a crucial three game period. Although sample size prohibited the use of multivariate analysis, univariate analyses revealed that the unsuccessful performance, group experienced significant pre to post game mood disturbance, while the successful performance group demonstrated positive mood profiles for both pre- and post game conditions. The successful group also attributed significantly more to controllable and stable factors than did the unsuccessful group. The win/loss outcome analysis revealed significantly greater post-game mood disturbance and dramatic one-to-post-game mood disturbance for the team loss situation. No significant's differences were revealed between the teams win and team loss attributions. Finally, correlation analyses for both sets of the performance and outcome results indicated constability to be the dimension most clearly related to emotional reactions with stability and locus being loss effectively involving.

Rawlins\textsuperscript{13} investigated the combined and seaport effects of goal setting and of an effort attribution orientation on Intrinsic motivation and motor performance. The second

purpose was to determine if these motivational treatments differentially affected subjects who had received failure oriented success oriented or no feedback of performance. Sixth grade male (N = 84) and female (N = 75) subjects were selected from all the sixth grade students attending the Howard Middle School, Manticello, Florida. All subjects were tested on a stabilometer task to determine learning and persistence as a function of each conditions. A2x3x4 (Sex x Feed back x motivation) ANOVA revealed that females persisted significantly longer at the task than did males. With respect to motor performance a 3x2x4x10 (feed back x Sex X motivation trials) ANOVA indicated that learning occurred across trials.

A trend (p = .09) was also obtained for the motivation main effect. Treatment effectiveness occurred in the following descending order: effort attribution orientation and control. Subjects in the three motivation groups perceived their causal attributions to be more internal on the post test than on the pretest. The control group perceived its causal attributions to be more external on the post test than on the pre-test.

Singer at al,14 investigated the study to compare the effects of various attributions for failure on a gross motor

14 Robert N. Singer, "Consequences of Attributing failure on a Grass Motor task to lack of effort or Ineffective strategy." Perceptual and Motor skills, 61:1, (August 1985), P. 299.
task. Equal numbers of male \((n = 25)\) and female \((n = 25)\) university students were randomly assigned to five groups. These groups were oriented to perceive power performance on a stabilometer as based on one of the following factors lack of efforts, ineffective attempts at using alternative strategies, both of the above a low level of natural ability or nothing in particular \(control\) Participants then received fictions normative feed back suggesting they had performed below average on eight consecutive trials. Dependent variables involved expectancies for success \(11\)-point rating scale), performance scores \(time on balance\), affective reaction \(11\)-point rating scale) and free-time persistence \(time on task\). Analysis indicated that the strategy oriented group and the effort/strategy oriented group persisted on the task more than the control groups. In addition, the effort oriented group reported less anxiety and frustration than the other groups.

McCaughan and Gimbert\(^{15}\) conducted the study to find out the effects of positive, negative and non reinforcement were examined during performance of a fine motor task to observe any expectancy and performance differences. Female high school subjects first learned the task and then were given a series of 30 trials in which social reinforcement was

administered non-contingently, positive social reinforcement had a significant effect on performance, while both positive and negative reinforcement had significant effects on expectancy. In addition, desperate attributions were made by each treatment group.

Ogunsari\textsuperscript{16} examined the effects of group performance in co-acting and interacting sport competitions on Trait and causal attribution made by group members for themselves and for the group with regard to winning or losing the contest.

Eighty subjects 40 boys and 40 girls, ages 13 and 14 years, who attended a basketball camp at the University of Oregon participated in the study. Two competitive tasks were used a relay race as the coacting situation and a basketball game as the interactive task. Sixteen team consisting of either five boys or five girls were formed by random selection. Those teams were then assigned randomly by sex subjects completed a locus of control questionnaire three days before the competition and completed an attribution questionnaire immediately after competition. Analysis covariance with repeated measures and person product moment correlation were used to treat the data.

\textsuperscript{16} Jacob Talwo, ogundari "Effects of Group Performance in Coaching and Interacting sport competitions on the Trait and Causal attributions of thirteen and fourteen year old boys and girls,"\textit{Dissertation Abstracts International} 43:2, (August 1982), P. 396-A.
The result of the study indicated that both boys and girls perceived internal qualities as the most important determining factors in sport competition. The subjects attributed success and failure in the contests much more to ability and effort of self and team than to luck or task difficulty. Significant interaction indicated that girls judged their personal ability and effort higher than those of the team in the interactive situation but lower after the coaching task. For boys the situation was exactly the opposite. The locus of control measure was negatively related to self attributions of luck indicating a tendency for persons with an external locus of control to attribute performance outcome to external causes.

Foster\textsuperscript{17} conducted the study on children's causal attributions and expectation for perceived outcomes related to motor performance, their peer's performance in a motor context. Subjects consisted of 87 children between the ages of 6 and 13 who were enrolled in a summer sports day camp programme. Children were assigned to one of four groups based on age. Each child performed a previously learned tumbling routine in front of peers, teachers, and judges. Self perceptions of performance and perceptions of peers performances were obtained and compared to judges ratings of

\textsuperscript{17}Constance Dee. foster, "Children's Attributions and expectations for perceived outcomes and their perceptions of self and Peers Ability to Perform a Motor Task."\textit{Dissertation Abstract's International} 44:3, (September 1983), P. 703-A.
the child’s performance. Results from the analyses of the performance ratings indicated that only the older children’s ratings of their own ability reflected the judge’s ratings and were correlated to peer ratings of their ability. In all age groups, children’s ratings of their peers reflected judges ratings of the performance status of the child being rated children in the 7 year old group made accurate ratings for their peers, yet, their ratings of their own ability were not related to either the judges ratings of their performance or to ratings they received from peers. A low correlation was found between children perceptions of control for academic outcomes and their perceptions of control for motor performance outcomes.

Smith\textsuperscript{18} investigated whether the implementation of personal policy for a rule infraction would be influenced by the cause for the infraction the severity of the penalty, and the importance of the offender to the group success. One hundred and fifty-nine male and female coaches were divided into two groups based on the personal characteristics of orientation towards winning (high vs low). Each coach responded to a scenario that described a curfew violation committed by a star or a substitute player. The cause for the infraction was either internal or external and the

policy was either mild or severe. Duncan's New Multiple Range Test revealed that: a) Coaches focused significantly (p < .05) more on the player and showed a significantly (p < .05) greater intensity towards the player when the cause for the curfew violation was internal rather than external (b) Orientation toward winning interacted with status of the player in determining whether to reduce penalty and (c) the severity of personal policy was not significant. The results extend the Green and Mitchell (1979) attributional model of leadership and confirm the importance of personal characteristics in control decisions.

Hannon investigated in this study stemmed from a quest for understanding why some students in physical education became discouraged and discontinue their active participation in a sport after initial low performances. It seems that erroneous subject-perceived causal attribution may decrease a subjects motivation to continue participation in a sport. Ninety four male and female college students were tested over a five week period at Middle Tennessee state University. The task was a fine motor skill called the labyrinthspel which required subjects to move a small steal ball through a numbered maze. Sex and an attribution

treatment served as the independent variables. The dependent variable, continuing motivation was assessed by a time measure and a subject self-report measure. A two-way ANOVA was used for each of the two motivation measures. Results indicated no significant difference between the sexes or between the attribution treatment groups. These findings are discussed in terms of the difficulty in attempting a manipulation of subjects causal attributions for past motor performance.

Brunnemer\textsuperscript{20} investigated personal characteristics and attributes of highly successful intercollegiate basketball and football coach. The Delphi technique, featuring a series of three questionnaires with controlled opinion feedback from the participants was selected as the research approach. Twenty-seven male basketball and football coaches of MCAA Division 1 institutions who had each won 70 percent of the games coached or had been named National Coach of the year by the appropriate writer's association constituted the panel of experts. Participating coaches rated 23 characteristics and attributes considered important to success in athletic coaching. A hierarchy of the characteristics and attributes studied was identified. In the collective judgment of the panel of experts, the "drive

to succeed" characteristic emerged as most important to their personal coaching success. At the bottom of the coaches rankings was the characteristics of authoritarianism", and element almost totally rejected by the subjects as significant to their success in coaching. The ranking of a number of the element studied shifted dramatically from the first to the final rankings. It was demonstrated that differences exist in the relative importance of certain elements to success in coaching of basketball when compared to success in football coaching. According to the coach's opinions, certain characteristics and attributes may be said to be of 'greater' or 'lesser" significance than others in successful basketball and football coaching".

Blundell investigation was designed to study the visual/perceptual attributes of tennis players of varying ability levels. The visual/phoria, depth perception, peripheral vision, and coincidence anticipation. Participants were 90 subjects, 18-32 years of age consisting of an equal number (n = 15) of males and females categorized as beginning, intermediate or advanced level players according to criteria outlined in the National Tennis Rating Program. The Bausch and Lamb vision Tester (BLL) was

utilized to measure visual cavity, visual phoria, and depth perception. The study investigated the three categories (a) relationship within the visual/perceptual measures, (b) relationship between the visual/perceptual measures, and (c) differences among the dependent measures accounted for by gender, skill level interaction. The Pearson product-moment correlation analysis was utilized to determine the relationship within the visual/perceptual measures. A number of 2 & 3 gender by skill, MANOVAs were used to analyze. The findings suggested that, a) the influence of peripheral vision particularly in response to the colors white and yellow was an important factor in determining the capability of a player to perform in a tennis environment dominated by speed of shot and decision making. (b) depth perception as measured by the Bausch and Lamb vision tester was a critical factor in determining advanced level performance. c) Advanced level players had superior visual cavity for both eyes at for vision than beginning level performers.

Eskridge\textsuperscript{22} conducted the study to find out the attributes of androgyny and the attitudes towards the role of women in society with particular reference to the female athlete. The PAQ and the AWS were the specific tools used for testing the respective concepts female subjects (n =

were grouped as athletes or non-athletes, and physical education major or non physical education majors. Differences in attitude towards the role of women in society between groups were determined by a two-way analysis of variance. Chi-square analysis were used to determine the differences between groups and sex role blentity classifications. No significant differences in attitude towards women were found between athletes and non-athletes or majors. No significant relationship was found between the scores of the AWS and the subscales of the PAQ. However, when all athlete and physical education majors were compared to non-athlete. Non physical education majors significant differences were found. It appears involvement in sport, not necessarily participation on an athletic team, either attracts the androgynous woman or enhances the androgynous sex role identity of a woman.

Scanlan and Passer23 examined the attributions of young female athletes (N = 163) for their personal and their team's performance after winning typing and losing a competitive soccer game. Players attributes were made to the internal factors of ability and effort and to the external factors of opponent difficulty and luck. It was proposed that the opportunities for tying and losing players to make

self-protecting external attribution would be limited by situational Constraints operating in Competitive sport that reduce the plausibility and acceptability of such defensive response. Overall the findings provided support for this situational constraint notion. Additionally, the results of this field study with young female soccer players generally were consistent with the findings of a previous study involving young male soccer players, suggesting that game outcome has a similar impact on the attributional responses of girls and boys.

Brawley\textsuperscript{24} conducted the research to find out children’s causal attributions in a competitive sports. This field research in sport psychology manipulated variables known to mediate attribution responses and tested the self-serving biases (motivational) model and weiner’s information-processing (non-motivational) model in examining attributions for the team and the self following a competitive ice hockey game. Selection of teams was based on past hockey performance in order to examine the effect of consistent performance and expectancy information as attributions. The variables of privacy (anonymity) and reward were manipulated following the game to study their influence. Subjects were 9 to 12 years old boys (N = 546)

representing 55 teams which either won or lost all of their last 3 game. Subjects attributed the importance of ability, effort, task difficulty and luck in causing the game outcome. These 4 dependent variables were considered within a past history by present outcome by anonymity by reward (2x2x2x2) design. Results of MANOVA for the team and for the self supported the self serving biases model. Present game outcome, not past hockey performance determined the pattern of attributions. It was concluded that the boys ascriptions were most effectively explained by motivational processes.

Dalton\textsuperscript{25} investigated this study to determine the effect of training with effort attribution reinforcement on persistence of a cognitive and a motor task. It was hypothesized that the use of the cognitive affective and psychomotors learning domains available in the motor task would create a more positive effect on task persistence than a predominantly cognitive task. Ninety-six 5th and 6th grade students were assigned to either the cognitive or motor training tools while receiving general or effort attribution reinforcement.

A 2x2x2 analysis of variance design was employed to test for the effect of training task testing task and

reinforcement on task persistence. Results indicated a significant effect for reinforcement with effort attribution reinforcement increasing persistence at both the cognitive and motor task. Although no significant effect was seen for training task, there was a tendency for the motor trained subjects to persist longer than the cognitive trained subjects. In addition, an interaction between training, testing and reinforcement showed that subjects profaned the motor task in both the training and testing situations. While no effect on task persistence was found for subjects locus of Control or achievement tendency, a significant effect was shown for training task and the locus of control with the motor trained subjects responding more internally.

Humble\textsuperscript{26} investigated the study to determine how motor achievement tasks are best presented to an evaluated for children, 84 subjects 8 to 10 years of age, participated in an original task. Subjects were exposed to 1 to 6 treatments combining prior instructions concerning requirements for task success (none, importance of effort, importance of ability) with task outcome (success, failure). Following the task, subjects were questioned about their attributions of causality for their task outcome and their effective

\textsuperscript{26}C.B. Humble, "Effects of prior instructions and motor task outcomes on children's causal attribution for and affective reactions to a motor achievement task". \textit{Completed Research in Health, Physical Education and Recreation} 21: (1980), P. 217.
reactions (evaluative self-perceptions) to that outcome. ANOVA indicated affective reactions were affected only by task outcome, success was more positively evaluated than failure. Results of the influence of the various treatments on the children's attributions of causality were mixed. There tendencies were observed only after task success as the children tended to ascribe success to esteem-enhancing causes and to avoid attributing failure to cause which would reduce evaluative perception of the self. The prevalence of the esteem-protective strategy of causal interpretation suggested that the influence authority figures may have on children's attributions is limited.

Iso-AHOLA\textsuperscript{27} investigated the relationship between sex role stereotypes and causal attributions. Eighty, fourth grade boy and girls competed a motor skill task against either boys or girls either winning or losing subsequently, subjects assigned causality of their success or failure to various attributional factors. The data confirmed the following hypothesis derived from the literature on the sex-role stereotypes. Boys are less likely to claim the lack of their own abilities and the presence of the opponents (girls) abilities as causes of their failures when they lose to girls than when they lose to boys. Girls showed a

tendency (non-significant) to accept the lack of their abilities and the presence of the opponents (boys) abilities as causes of their failures to a greater extent after losing to boys than after losing to girls. The results further revealed that mere performance against competitors of the same sex increased boys stereotypes about then superiority over girls.

Gillis\textsuperscript{28} investigated a test of Weiner's proposition of the effects of achieving tendency on Causal attributions was conducted using a stabilometer performance as the criterion task. The Achieving Tendency Scale and the Internal-External Control Scale were administered to 930 college students. From there 120 subjects who had extreme scores on the ATS and moderate scores on the I.E. Scale were selected for the experiment. Subjects performed one 30 second trial on either a spring-assisted or a non-spring assisted stabilometer. The importance of the causal factors of ability, effort, test difficulty and luck as influence on performance were then rated. A2x2x2 MANOVA was performed across the ratings of the four factors, with achieving tendency, gender and outcome considered as independent variables. The only significant effect was a main effect for

outcome (p < .001). Subsequent univariate analysis indicated that only effort attributions differed as a function of outcome (p < .001). Those who succeeded perceived effort to be more important than those who failed. Also, a significant univariate effect (p < .02) was found for gender on the luck factor, female perceived luck to be more important than did males.

Weinberg and Jackson\textsuperscript{29} conducted the study to determine the effect of monetary rewards and success/failure on intrinsic motivation and causal attributions of males and female competing on a motor task. Multivariate analysis of variance produced a significant overall main effect for feedback, with subjects exhibiting more intrinsic motivation after success than after failure. The sex X feedback interaction (p < .09) indicated that males exhibited more intrinsic motivation than females after success, whereas females displayed more intrinsic motivation than males after failure. Attribution results showed that success was primarily attributed to high ability high effort and good luck while failure was attributed to low ability, low effort and bad luck. Correlational analysis revealed that success was related to high ability, high effort, good luck and high intrinsic motivation. Conversely failure was associated with

low ability, low effort, bad luck and low ability, low effort bad luck and low intrinsic motivation. In addition, ability and effort were the causal attributes most related to changes in intrinsic motivation.

Rajeski\textsuperscript{30} conducted a study of an attributional model of achievement in a sport related bicycle Erogometer task. The purpose of this research was two fold. First, a specific scale was developed to assess locus of causality in sport achievement (LCSA). Second, a 2 (high Vs low ability) x 2 (high vs low effort) x 2 (success vs failure) between subjects design was employed to investigate the relationship of various informational feed back to affect, expectancy and causal ascriptions for success and failure in a sport related bicycle Erogometer task.

Results of the experimental study’s suggest that effort attributions may have a special status when related to tasks in sport physiology despite experimental manipulations, subjects consistency refused to ascribe causality for failure to a lack of effort. Support was also provided for the propositions that effect relates to both ability and effort. The original work of Weiner and his colleagues had shown that affect was determined exclusively by effort

\textsuperscript{30}Walter John, Rajeski, "The study of an Attributional Model Achievement in a sport related Bicycle Erogometer Task". Dissertation Abstracts International; 40:1, (July 1979), P. 156-A.
attributions. Further expectancy associated with successful outcomes were positively related to ability and negatively to task difficulty. In failure conditions the lower the expectancy estimates the greater were attributions to the perceived difficulty to the task.

Bird and Brame\textsuperscript{31} investigated the attributions made by female basketball players for both self and team. It was hypothesized that internal (ability effort) ascriptions for self would not vary as a function of team outcome while internal team oriented attributions would be evaluated negatively as a consequence of failure. No prediction were made relative to external ascriptions (luck/task difficulty) for either self or team. Subjects were selected randomly from winning and losing teams within seven collegiate conferences. Initially, data were analyzed by means of MANOVA. Results indicated presence of overall significance. ANOVAs with repeated measures on the last factor were computed for each dependent variable (ability/effort/luck/task difficulty). Results showed only limited support for the hypothesized relationship between team outcome and ascription for self versus team. The team ability variable emerged as the most powerful discriminator between winners and losers. While the team-effort variable

\textsuperscript{31}Aanne Marie Bird and Judith M. Brame. "Self versus Team Attribution; A test of the "I" m o.k, but the team's so-so" phenomenon", Research Quarterly 49:3, (October 1978), PP. 260-267.
was statistically significant, it was a much less potent discriminator compared to team ability.

Sherman and Burgess\(^{32}\) examined 20 behavioural attributes predicting social; distance among 101 junior high school students in six class rooms. The samples included 8 developmentally handicapped students, of whom at least one of each was mainstreamed into each classroom. Subjects were predominantly white, middle class, suburban mid westerners. A sociometric nomination measure was used to obtain behavioural attribute profiles of the students which were then used to predict a psychometric measure of social distance. Handicapped students were not more socially distant than their normal peers factors analysis of the 20 behavioural attributes yielded four factors, three of which were significant predictors of classroom social distance accounting for better than half the variance in social distance. These were described as Incompetent/unassertive, positive/active/Assertive and passive/in assertive, social rejection in mainstreamed classrooms is more a function of perceived behavioural attributes than the label developmentally handicapped.

yamauchi\(^{33}\) conducted this study to compare the attributions of children with mothers' attributions and children's predictions of their mothers' attributions for children's school performances. Subjects were 76 boys and 94 girls in seventh grade and mothers. The questionnaire was composed of 8 items and each item had 4 response options to evaluate factors of ability, effort, task, difficulty or luck. Four items were related to good school performance and the other four to poor performance. Children and mothers attributed both good and poor school performances to effort. Several tendencies of children's causal attribution were congruent with the tendencies in children's predictions of their mothers' attributions but were not related to mothers' causal attributions.

Johnson\(^{34}\) examined the attributes perceived as essential by four constituency groups from NCAA Division 1-A Universities. The study also examined a framework of decision making that allowed for interaction and interdependence among factors involved in the decision making process. A coaching Attribute Questionnaire developed

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\(^{34}\)J. Scott, Johnson, "Attributes perceived as essential for Hiving football and Men's Basketball Coaches at NCAA Division 1-A schools by University officials" Dissertation Abstracts International 47:9, (March 1989), P. 3355-A.
by athletic directors from throughout the Country was used as the instrument for establishing important attributes.

The Coaching Attribute Questionnaire was completed by 150 randomly selected people from the following four constituency groups: president athletic directors, faculty representative and directors. Analysis of variance was the statistical tool used to determine if any significant difference existed between the attributes perceived to be essential in selecting head coaches by the four constituency groups.

Statistically significant differences were found at the .05 level among the four constituency groups in two of the nine attributes statements. The attribute head coach at a Division school was perceived as being more important by athletic directors than by the president's group. The attribute commitment to the adherence of Rules was perceived by the presidents as being more important than did either the athletic directors or the Aumici directors.

Humphries\(^{35}\) conducted the study on skill and knowledge base attributes of young Baseball players. Members of three baseball teams for 13 to 14 years old an four 10 to 12 years old participated in a season long study of their skill,

knowledge base and game performance. Subjects were weighted height measured, skill tested at base running speed and throwing for distance and accuracy, game performance coded and took a multiple choice baseball test. The one or two best players with complete data from each team were compared as a group to the one or two poorest who had adequate data, including performance scores from at least three games. The rank groups were compared within the age the low rank older player to the high rank younger player of an age would be different, but those in the cross comparison might be similar. Analysis showed only one differences for younger players: the better players got to play more. The cross age comparison results were as expected, the only significant differences were that older players were older, taller and had more years of experience.

Research scholar intensively studied the literature related to the attribution theory and the research based on this theory. In the 70s and early 80s most of the work was done on attribution theory and the conclusion were found with the wide range of Causal attribution on winners and losers to the involvement of ego and other factors in the interpretation of the outcome. Shaw, Dzewaltowski and McEloroy (1992), Kim (1990) and Gillis (1979) supported the concept that the successful players attribute their outcome to the interval causes such as ability and effort. Whereas, losers attributed their
outcome to the external causes. In the same token Brawley (1980), supported the idea that boys attribute their outcome on the basis of the motivational process where, the successful boys interpret their outcome by self-serving bias and losers attribute to the self-protecting bias which is supported by the findings of the Zientek and Breakwell (1988).

Although, most of the research findings on attribution supported the notion that the athlete make use of motivational processes in attributing their outcome. Some of the research findings have been found contrary to the finding of the study which are in support of the notion. Zientek and Breakwell (1991) in their one of the study found that winners and losers do not differ in their internal attribution. Many research findings speculates that while attributing to cause of the outcome, only ability, effort, task-difficulty and luck does not explain the causes but individual differences also plays an important role in attributing the causes. Safton (1989) while investigating the trend of attribution at different age level has concluded that following win both younger and older female and younger males gave predominantly immediate effort attribution, while older males gave predominantly typical effort and mood type attributions.

Many scholars have also worked on the training effect of effort strategy orientation group reported less anxiety and frustration then the other groups Singer, et al (1985)
supported the notion. Whereas, Weinberg and Jackson (1979) concluded that ability and effort were the causal attribution most related to changes in intrinsic motivation.

Finally, it could be concluded from the literature that many research scholars have worked on the attribution theory with wide variety of situation and varied number of subjects and have concluded in the both way as few research scholars have found that motivational process is used while attributing the causes of the outcome of the game and few have concluded the contrary to other scholars as no difference was found into the attribution of the winners and the losers.