C H A P T E R - II

RESUME OF RELEVANT STUDIES

In this chapter an attempt has been made to review the studies conducted on the effect of cooperation and competition upon interpersonal relationship. Some of the notable researches in this area are as follows :

Pareek, Udai & Dixit, Narendra (1974) used the maximizing difference game to study cooperative behaviour. The game was played dyadically with the players not visible to each other. Ss were preadolescents, 20 boys and 20 girls, 23 independent variables were employed. Results indicate that 3 of the independent variables correlated positively with the dependent variable at a significant level, and 20 of them correlated significantly in a negative direction.

Further in another study they had administrated to 150 preadolescent school children a cooperative and competitive disposition Inventory and a cooperative and competitive pronenes Inventory. Ss also participated in 2 person games where each subject wants either to maximise the difference in gain between partner and self, or to play so that the partner gets equal points. The variables measured included cooperation, competition,

cooperative disposition, competitive disposition, cooperative proneness, competitive proneness, trust, trustworthiness, forgiveness, repentance, retaliation and exploitation, relationships between the different variables are discussed and suggestions are given for further studies.

Begum, Hamida A & Ahmed, Eliza (1986) examined risk taking in individual and group situations as a function of proneness to cooperation or competition using 80 male and 80 female students (aged 14-16 yrs). Ss were administered a cooperation and competition proneness questionnaire and a choice dilemma questionnaire. In same sex groups of 2-3 yrs, Ss were asked to discuss each problem on the choice dilemma questionnaire and to arrive at a group decision. Results show that both individual risk taking and shifting toward greater risk were significantly related to cooperation or competition proneness of Ss. Competition-prone Ss took greater risks than cooperation or neutral-prone Ss. Males took greater risks than did females in the initial administration of the choice-dilemma questionnaire.

Blanchard, Fletcher A; Adelman, Leonard & Cook,

Stuart W (1975) studied effect of group success and failure upon interpersonal attraction in cooperating interracial groups. The effect of group success and failure upon interpersonal attraction in cooperating interracial groups was investigated in a 2 x 2 x 2 factorially designed experiment. The level of participation in the group's decision making (high or low) and race (Black or white) served as the additional independent variables. Fifty six 18-21 years old white male Ss from small southern US towns exhibited significantly greater attraction for groupmates under the success as opposed to the failure condition. No main effects for the race of the group member being evaluated or the level of participation in decision making were obtained, nor were there interactions among any of the 3 independent variables. Separate analysis of the attraction ratings given the white and the black groupmates further revealed that whatever elevated or depressed the ratings for one, similar affected the ratings for the other. A general satisfaction and dissatisfaction interpretation was offered to explain the effect of group success - failure on interpersonal attraction.

Johnson, David W. & Johnson, Roger T. (1985)

conducted a study with 48 Black and White 6th graders (stratified between groups for ability, sex and ethnic group membership) to determine whether 1) inter group cooperation and competition promote different levels to cross-ethnic interpersonal attraction, 2) majority and minority Ss react differently to cooperative learning experiences, and 3) inter group cooperation and competition promote different inter-action patterns between minority and majority students. Ss participated for 55 min/day for 10 days. In the inter group cooperation (ICO) condition, emphasis was placed on how well the entire class achieved. In the inter group - competition (ICP), emphasis was placed on which group achieved the highest. Measures of achievement, inter-personal attraction, and interaction showed that there was more cross - ethnic social interaction in ICO than in the ICP condition. Majority of Ss made more task management, social, cross-ethnic statements than did minorities. It is concluded that minority Ss reacted differently to the 2 conditions than did majority Ss; minority Ss responded more positively to cooperative group experiences and showed more satisfaction in their group's work.

Lefevure, LUC & Cunning Ham, John D. (1974), investigated the competitive orientation among Belgian College Students ; - Effects of non-punitive and different strategies playing the allocation game. Deutsch's allocation game was played by 90 students in 60 trials. In the 1st (Basic) condition, confederates playing Non-punitive and Deterrent strategies equally rewarded Ss non-competitive behaviour and differentially neutralized competition. In the 2nd and 3rd conditions, a message increasing trust and a Reformed Sinner tactic decreasing trust preceded both strategies. Strategies and conditions produced independent differences. In basic condition, Ss interacting with the nonpunitive confederate obtained many more points than with the Deterrent confederate. Most points were produced by cooperative and individualistic behaviour. The message condition yielded more points in both strategies, while the Reformed sinner condition tended to decrease the number of points earned in the Non-punitive strategy. Trend toward greater competition among Flemish students than American students, which had been found consistently over several different games, was discussed in terms of possible cultural differences.

Alock, James E (1974) conducted his study on

cooperation, competition, and the effects of time pressure in Canada and India. He studied the effects of time limitations on bargaining behaviour in 3 experiments with 20 male and 20 female dyads of Canadian Undergraduates (Exp-I), 20 male and 18 female dyads of Indian undergraduates (Exp-II), and 24 dyads of Canadian male undergraduates (Exp-II), and 24 dyads of Indian male undergraduates (Exp-III).

Findings of the study indicate that Canadian males reacted to time limits imposed by one of the bargainers in a manner consistent with the way North American males typically react to threat - by becoming very competitive and resisting yielding. When the time limits were imposed by E, however, this same group reacted cooperatively. Canadian females and Indians of both sexes were all relatively cooperative, regardless of the source of time limitation. Indian females, however, were more passive than the other groups.

Arap. Maritim, Ezra K. (1984) examined the relationship of parental strictness to competitive and cooperative attitudes, as measured by Minnesota school. Affect Assessment, among 109 boys and 119 girls from grades 3, 4, 5 and 7. On the competitive items, boys

did not score significantly higher than girls, but the girls scored higher than the boys on the cooperative items. Girls perceived their parents as being more strict than boys. For boys, a significant correlation was found between parental strictness items and competitiveness, whereas for girls both competitiveness and cooperativeness showed significant correlation with parental strictness. Ss expressed attitudes about their parents that were strongly correlated to their sex differences in attitudes. Results suggest that parental strictness may be significant in the development of sex differences in competitive and cooperative attitudes.

Codol, J. P. (1974) described continuing research to isolate a "Primus inter pares" (PIP) effect in competitive game situation. Ss were 210 males 17 and 18 years old, who rated themselves on how they would act in situations requiring cooperation or competition with a partner. Cooperation included refusing him aid. The expressed desire to win at games was evidently stronger than any desire to please.

Ia Freniere, Peter J. & Charlesworth, William R. (1987) examined the effects of friendship and dominance

status in preschooler's resources utilization in cooperative/competitive situation.

40 Preschool Peers (aged 38.6 - 57.5 mo) were formed into 10 groups of 4 Ss each ; each group was placed in a room containing a toy movie viewer that required the assistance to 2 children in order for 1 child to view the movie. Dominant Ss were able to gain access to the viewer and use the resource more than lower ranked classmates. Dominance rank did not predict resource utilization between same sex friends. High status groups of friends used the resource more effectively and more equitably than groups composed predominantly to low ranking children or nonfriends. Friendship relations rather than affiliative behaviour in the situation were associated with high resource utilization. A mixture of quasi-agonistic and opportunistic behaviours led to high resource utilization ; agonistic behaviour were infrequent and unrelated to resource utilization.

Pack, D. Glenn & Rickard, Henry C measured Reports of group cohesion under high and low cooperation. A total of 22 boys in 3 groups attending a summer camp for emotionally disturbed children completed self-report

measures on days in which counselors observed high or low degree of cooperation within groups. Results support the hypothesis that students behaving cooperatively would report greater liking for group members and judge the group as a more attractive, cohesive unit.

T Josvold, Dean ; Johnson, David W. & Johnson, Roger (1984) studied influence strategy, perspective – taking and relationships between high and low power individuals in cooperative and competitive context. (1984)

64 Undergraduates negotiated an exchange of resources in dyads. They were assigned either high or low power relative to the other and negotiated within a cooperative or a competitive context. Results indicate that within a competitive context unequal-power relationships resulted in the high-power Ss use of coercion and low-power Ss attempts to negotiate. Both high and low-power Ss perceived their relationship to be dominated by egocentric focus on one's own goals and attempts to control the other to meet one's needs. Within a cooperative context, however, both high and low power Ss were highly inducible to each other's influences, needed resources were provided to each other,

high trust and liking occured between Ss, and Ss were more accurate in understanding each other's perspectives. It is concluded that unequal power seemed to undermine negotiations within a competitive context while not deteracting from effective working relationships within a cooperative context.

Judd, Charles M. & Pak, Bernadette (1988) studied out group homogeneity : Judgemerts of variability at the individual and group levels. Out groups are generally seen as less variable or diverse than in groups. Two explanations have been advanced for this out-group homogeneity effect. They differ in whether differential frequency of stored examplars is a necessary condition for the out - group homogeneity effect. They used a modified minimal group paradigm to discriminate between the two. Their results suggest that when the group distinction is made salient by anticipated competition out group homogeneity is obtained even with no difference in examplar frequency They also show that the effects of competition versus cooperation differ at the level of group judgements and memory for individual group members, such that at the group level out-groups are seen as less variable than

in-groups under competition, but competition actually increases memory for information about individual out-group members. This combination of results is clearly inconsistent with an exemplar - based explanation of the out-group homogeneity effect.

SHIMIZU, JUN (1973) examined cooperative and competitive orientations of 20 groups of 60 male college students by means of the matrix game in which 5 blocks of the experimental groups were exposed to 5 levels of expectation of successful group performance. Ss were instructed to perform either cooperatively or competitively in order to maximize the amount of reward. Results indicate that the group-oriented or cooperative behaviour prevailed when the group output was perceived as lower, but not remarkably lower, than the group goal. Individual-oriented or competitive behaviour prevalied when the group output was obviously successful or close to success, or when the group output was remarkably below the group goal.

Richmond, Bert O. & Weiner, Gerald P. examined cooperation and competition among young children as a

function of ethnic grouping, grade, sex and reward condition. They assigned 108 pairs of 1st and 2nd grades to a game situation which required cooperation in order to win prizes. There were 6 trials in each of 2 conditions - cooperative and competitive. Significant differences were found in Ss cooperative competitive behaviour according to reward condition and ethnic grouping. Black Ss working together were more cooperative and less competitive than pairs of white, while black and white working together were less competitive than pairs of white but more competitive than pairs of white but more competitive than pairs of blacks. No biological sex differences were significant. 2nd grades were more competitive than 1st grades, suggesting that maturational factors as well as school experiences may result in greater competition among children.

Hagman, Joseph D. & Hayes, John F. (1986) investigated whether cooperative learning can effectively promote individual achievement, using 360 military trainees. Exp I compared the performance to 280 trainees after they had completed practical exercises under cooperative or individual learning. Results reveal that cooperative

learning improved individual test scores when coupled with a group reward contingency, and significant benefits occurred once group size reached 4 members. Exp II employed 80 trainees to determine why group reward was necessary for obtaining enhanced individual achievement under cooperative learning. Two potential hypothesis were tested : (1) group reward effects are caused by increased individual trainee motivation to learn resulting from group pressure to perform ; and (2) group reward encourages group mates to share information, and this peer tutoring facilities individual learning. Results support the peer tutoring hypothesis.

Stingle, Sandra F. & Cook, Harold (1985) hypothesized that when playing a game in which cooperative behaviour maximized reward, (1) 5 yr.old pairs of children would be most cooperative, 8 yr. old pairs would be moderately cooperative, and 11 yr. old pairs would be least cooperative and that 8 and 11 yr. old pairs of boys would be more cooperative than their female counterparts, and (2) 5 yr. old same sex pairs would not differ in cooperative and non-cooperative behaviour. Results from 42 children at each of the 3 age groups (5, 8 and 11 yrs.) provide no support for

hypothesis I and only partial support for hypothesis 2. Eight and Eleven yrs. old pairs were relatively more cooperative and attained significantly more joint reward goals than 5 yrs. old pairs. Older pairs were not maximally cooperative, however, in terms of all of the dependent measures. In adjusting for initial differences on practice trails, 5 and 8 yr. olds took less time than 11 yr. olds, and 11 yr. old boys took significantly more time than all other pairs. Cooperative task behaviour increased across trials, especially for 11 yr. olds.

Concha, Pat ; Garcia, Lourdes & Perez, Ana (1975) studied cooperation v/s competition ; (A comparision of Anglo-American and Cuban-American youngsters in Miami). They used 2 Madsen cooperation boards to test cooperation and competition in a total of 96 Anglo-American and Cuban-American 10, 13 and 17 years olds. Significant effects for nationality and age were found, in that Anglo-Americans cooperated to a greater extent than Cuban-Americans and older Ss were more cooperative than young subjects.

Sherman, Richard C. described an experiment in which 153 undergraduates judged similarities and

dissimilarities among 20 nations under conditions in which they expected cooperative, competitive, or no future interaction with fellow Ss. Analysis of the similarity data by means of a multidimensional scaling technique (INDSCAL) reveals a 7 - dimensional configuration that correlated 72 with Ss original judgements. Comparisions between hawks, moderates and doves (as determined by attitudes towards the vietnam war) indicate that Vietnam political alignment was more important to hawks than to moderates and doves. A cultural geographical dimension that contrasted African and Asian nations was more salient to doves and moderates than to hawks. Perceptual differences among attitudinal groups were greatest in the cooperation condition, less in the competition condition, and least in no-interaction condition. Hawks and doves were most affected by judgemental conditions, as indicated by both groups giving significantly less weight to cultural - geographical dimensions in the cooperation condition than in either the competition or neutral conditions. Results support the hypothesis that the salience of certain perceptual dimensions is a function of both perceiver charactersitics and judgement conditions.

Gouran, Dennis S. & Baird, Sohn E. (1972). - An analysis of distributional and sequential structure in problem - solving and informal group discussions.

Studied 26 undergraduates who were divided into 4 groups of 6 or 7 members, all of whom participated in both a problem - solving and an informal discussion. Statements were classified into 5 categories : initiating theme, agreeing or disagreeing and giving or asking for information. Results showed that initiation of new themes was more prevalent in problem - solving groups while question - asking was proportionately greater in informal groups. Greater structure in types of statements was not found in problem - solving groups as expected, while a higher degree of structure them might be expected was found in informal groups. Both days of groups seemed to process a low tolerance for conflict; however, disagreement in informal groups tended to be personal and opinionated rather than a questioning of statements or facts.

Further, Baird, John E (1975) examined the sequential and distributional structures emerging in cooperative and competitive group discussions in an effort to determine whether group motivations or time of preparation accounted for earlier findings reported by D. S. Gouran and J.E.Baird. Both exaplanations found support.

Dowell, Linnus J studied the effect of a competitive and cooperative environment on the comprehension of a cognitive task. College students were divided alphabetically into cooperation competition sets of 8. Each student was given a play booklet with 12 targets from which to develop rules for placing the target correctly. After 20 minutes, play booklets were collected and 30 item matrix test was administered in which each student was to identify if the targets were correctly placed. Comparisions of the results observed between groups were made by analysis of variance. It was found that a cooperative learning environment was not more conducive to the learning, of a mental task than a competitive learning environment.

Sherman, Lawrence W (1986) studied cooperative versus competitive educational Psychology classroom :

From introductory educational Psychology classes with 137 students were differently taught, 3 with a cooperative goal structure and the other with an individually competitive goal structure. A 2 - way repeated - measures analysis of variance (A N O V A) design was used to examine pre and post test learning by treatments within Ss. All 4 groups obtained significant gains on their post test scores as contrasted with their pre test scores. No significant differences were encountered among the 4 groups pre or post test scores. Affective differences were obtained among the 4 groups, indicating significantly more negative perceptions being associated with the competitive group as contrasted with the cooperative groups. The data suggested that students prefer a cooperative goal structure.

Cook, Harold, Stingle, Sandra conducted study on the cooperative behaviour in children. They reviewed the theoretical and empirical literature relevant to cooperative behaviour of children. An attempt was made to delineate theoretical view points, to discuss definitions of

behaviour, and to subcultural variables and social interaction. In addition, some factors influencing the learning of cooperation were discussed. Methodological problems and inconsistent findings that limit generalizations concerning the process thought to relate to cooperative behaviour inchildren were described.

Srivastava, Ashok K.(1986) studied the effect of communication, information, and motivational orientation on cooperative Vs competitive game behaviour. 120 male indian undergraduates were assigned to 1 to 12 conditions in a 2x2x3 factorial design that varied communication (free Vs none),information (full Vs partial),and motivation (cooperative, competitive, or individualistic);all Ss participated in a version of the prisioner's dilemma game.

Results indicate that Ss were more selfish and used exploitation and cut-throat competition strategies more frequently in no communication, full informaltion, and competitive motivation conditions. There was a significant linear increase in selfishness over time.

Faroqui,M.A. made an attempt on motivation and morale in a cooperative group. He studied the effect of cooperative and competitive relations among group members, and of task nature & time perspective on the groups motivation & morale. 133 male undergraduates were tested in groups of 5 or 6. Results show that goal oriented subjects had favourable effect on group motivation and morale.

Doise, Willem and Weinberger, Monique (1972) studied interactions under situations of cooperation, induced competition, and spontaneous competition. Ss were 90 male and 90 female students in a commercial school school assigned in male/female pairs to 1 to 1 or 2 to 2 task situations. Ss completed indices of differentiation, discriminative evaluation, masculinity and feminity. Results indicate the individuals different dimensions. Anticipation of competitive interaction influenced responses on indices of masculinity and femininity; competition accentuated masculinity of both persons involved in the task.

Gelb, Richard and Jacobson, Joseph L. (1988) Studied Popular and unpopular childrens interactions during cooperative and competitive peer group activities.

12 Popular and 12 unpopular 4th grade boys were videotaped as each attempted to gain entry into a cooperative and competitive task involving 2 class mates who were average in popularity. During the competitive procedure, the unpopular entry Ss were more likely than their popular counterparts to break rules, emit silly noises, and appeal to authority,

children average in popularity directed more positive behaviours toward their well - liked class mates and more derisive and dominating behaviour toward unpopular peers. Unpopular Ss exhibited less negative and immature behaviour in the benign, tension free atmosphere of cooperative project, and their peers were more tolerant toward them than during the competitive game. Findings suggest that contextual factors influence in social skills exhibited by the unpopular child.

Johnston, Mary; Markey, Cathleem Messe, Lawrence A ; studied a sex difference in labeling effects on behaviour in Prisoner's Dilemma game.

Past research suggested that females appear less cooperative when playing the Prisoner's Dilemma game (PD) because they are less likely than males to adopt a strategy that guides behaviour over trials. This inference served as the basis for speculating that females (more than males) would be influenced by whether or not alternatives in the PD were labeled "Cooperation" or "Competition", a variable that should affect the ease with which strategies could be

generated. 40 under graduates served as Ss. Results supported the hypothesis in that females "learned" a cooperative orientation more quickly when alternative were labelled, while this variable did not affect the behaviour of males.

Komorita, Samuel S. (1987) conducted study of 2 person decomposed Prisoner's dilemma games (DPDs) constructed from a 2 by 2 prisoners dilemma game. Pruitt showed that some DPDs evoked greater cooperation than others, despite the fact that the pay offs were identical in all of the games, Pruitt's findings were interpreted interms of H. Hamburger's "take some" and "give-some" games, and it was hypothesized that DPDs in which the cooperative choice to rewards the other members of the group would evoke greater cooperation than DPDs in which the competitive choice punishes the other mambers. This hypothesis was tested, using 3 person DPDs and 63 male college students. Results support the hypothesis and are discussed in terms of nonadditive utility hypothesis, decision framing, and a theory of interdependence.

Lemaine, Gerard and Kastersztein, Joseph (1973) examined that in competitive situations some individuals manifest highly original social behaviour in moving towards goals. Research completed by the authorities which studies factors differentiating the organization of life space and strategies adopted to reach goals by youngesters and students under selected experimental conditions was reviewed.

Schmidt, constance R.; Ollendick, Thomas H. and Stanowicz, Laura B. (1988) examined developmental changes in the influence of social goals on cooperative and competitive behaviour in children between the ages of 6 and 13. Children played a game with a neutrally instructed peer under cooperative and individualistic instructions. The tendency to engage in cooperative and combative moves and to use attentional words varied interactively with age, sex, order of instructions, and trials. Older children adapted their cooperative behaviour to fit assigned goals when individualistic trials preceded cooperation trials, but Younger children did not. Older children adapted their competitive behaviour on two of five game trials, but Younger children did not adapt their competitive

behaviour on any trials. We observed no developmental differences in the overall levels of cooperation and competition. However, younger children were more likely to use attentional words than other children, and both age groups used more attentional words under individualistic instructions than under cooperative instructions. The results suggest that older children were more flexible in adapting their social strategies to assigned goals.

MARTIN M. GROSSACK had done a study on "Some effects of cooperation and competition upon small group behaviour". His main problem was to determine the consequences of cooperation and competition on small group cohesiveness, social influence and communications.

Following conclusions were found in that study.

A. Cooperative subjects showed significantly more behaviour.

B. Cooperative subjects received significantly more instrumental communication (opinion and information) and fewer consumatory communications (Tension and antagonism).

Deutsch's (1949) experimental study of the effects of cooperation and competition upon group process illustrated the difference between cooperative and competitive groups which can be expected if other variables like group organisations and motivation are controlled.

If the criterian for completion as ambiguous it is difficult to find a solution to the task.

The most efficient groups are those in which rules are appropriate for the task. In general cooperation results in better individual motivation, friendliness and group productivity. When group members expect to cooperate, self-oriented behaviour disrupts the group.

A mild stress results in higher productivity than no stress or extreme stress. Motivation to perform is higher when the task has a high degree of reality. Incomplete tasks are more readily recalled than completed.

Stephan C. Jones and Victor H. Vroom (1964) in

their research - "Division of Labour and Performance under cooperative and Competitive conditions", found following results.

The questionnarie data show some interesting differences in the affective reactions of cooperative and competitive group members. In general the cooperative groups expressed more positive attitudes about the situation they were more satisfied with their performance and expressed more liking for each other than did competitive groups.

In small group research some work has been done on work satisfaction also by Katz and Kahan (1952), Zalezhik Christensen and Roethlis Berges (1958). Satisfaction has been influenced by competition and cooperation also (Deutsch, 1949, Mintz 1951, Grocc 1954, Stehdler, 1951).

It was found that group members who have been motivated to cooperate show more positive responses to each other, are more favourable in their perception, better involved in the task and have greater satisfacton with the task (Phillips & D'Amica 1956, Manna & Manna

(1959) and Damrine Haines (1955). Because of their cooperative effort working at cross purpose is considerably minimized and production increases. However, in case group members are not highly attracted to the group or to its goal, cooperation is likely to be minimized. Maller (1929) noted that members voluntering for a group showed greater efficiency in comparision to those who constituted groups arbitrarily.

The effect of cooperation will also be minimal if in doing the task, division of labour is not ensured or it reward for the individual cooperating member is less than for competing individuals.

Berg, Thomas R. (1991) studied power and interdependence in groups : Views of managers and employees :- cooperation, independence (personality) competition, power, employee efficiency.

47 members and 143 employees from a large company rated each other's power and the extent to which they had developed cooperation, competition, and independence. Cooperation and power were related to perceived effectiveness of manager and employee. Cooperative goals

supplemented power and contributed to constructive organisational dynamics. Employees described cooperative managers as competent and facilitative to their work. Managers who have developed cooperative goals indicated that their employees had a positive impact on them and were competent. Independence and Competition were strongly related to conclusions that the manager and the employee were ineffective and undermined work performance. Not only does power occur in cooperation, but it may be more prevalent in cooperation than in competition.

Warner Wilson and Norman Miller (1961) examined shifts and evaluations of participants following intergroup competition. Intergroup competition was arranged in the following manner. Two men competed against two stooges on several tasks. Winning and losing was manupulated by having the stooges always win against half the team and always lose against the other half. The difference in favourability of a team before and after ratings of the other participants on 27 personality traits was the dependent variable. A significant inter action was found between the experimental treatment (win or lose) and object rated (Team mates or

opponents). The relevance of the findings to five widely held hypotheses concerning the effects of interaction and competition on individuals and group was considered. Only the hypothesis that 'liking' is increased by interaction received unqualified support.

A perusal of the findings reveal that in small group lots of researches have been done upon group cohesiveness, work satisfaction, productivity of the group, group confirmity, interpersonal relationship and so on.