Chapter - Five

RESULTS AND DISCUSSION

In the present investigation the author dwels into the problems pertaining to relationship between altruistic behaviour and its certain determinants i.e., sex, approval motive and social facilitation.

The present chapter has been devoted to the discussion of the obtained findings. The data are analysed with the help of parametric statistics (Chapter four) with a view to study individual and interaction effects both. Hence, the present chapter will be divided into two parts. First will be elaborating the individual effect of independent variables. i.e, sex, approval motive and social facilitation and second will be throwing light on interaction effect of the three independent variables on altruistic behaviour the dependent variable.

EFFECT OF INDIVIDUAL FACTORS.

As has already been detailed earlier that the present research deals with the effect of three independent variables. i.e., sex, approval motive and social facilitation on altruistic behaviour of the subject. The effects of these independent variables have been studied through testing and experimental situations both.

EFFECT OF SEX ON ALTRUISTIC BEHAVIOUR.

Sex has been considered or important independent variable expected to exert its effect on altruistic behaviour of the individuals. It was hypothesized that males would score higher on altruism scale (Testing situation) and would share more of the rewards received with the co-participant after performing on a task jointly in comparison to females (Experimental situation)

Perusal of Table 8 reveals that mean altruism score (Figure 1) of females ($M=47.31$) is higher than that of males ($M = 43.945$). Similarly, perusal of Table 9 reveals that average altruistic behaviour score (Figure 2) of females ($M = 2.71$) is higher than that of males ($M = 2.315$).
To check the significance of these differences between the two sex groups in regard to their altruism, two F-ratios were computed in two three-way ANOVA along with two other variables i.e., approval motive and social facilitation (Table 10 and Table 11). The obtained F-ratios (F=10.15 & F=14.80) are significant at .01 level of confidence for 1 and 232 degrees of freedom.
freedom. Furthermore, 16 CRs were computed to ascertain the significance of difference between males and females belonging to various subgroups in respect of their altruistic behaviour. Out of these 16 CRs, eight CRs were for testing situation (Table, 12, Fig 3 to Fig 10) and rest eight CRs were for experimental situation (Table, 13 Fig 11 to 18). 15 of these 16 CRs are significant at .01 level of confidence in one tailed test for respective degrees of freedom. The significant F-ratios and CRs provide sound statistical ground to conclude that females are generally higher altruistic in comparison to males. The present finding though significant, does not testify the research hypothesis where in males were expected to be more on altruism in comparison to females.

Figure # 3 Average Altruism Scores Of Males And Females (Dis regarding SF in testing situation)

Figure # 4 Average Altruistic Behaviour Scores In Experimental Situation Of Sex (Males and Females) Desregarding SF.
Figure # 5 Average Altruism Scores Of Males And Females In Control Condition (Disregarding AM)

Figure # 6 Average Altruistic Behaviour Scores Of Males and Females in Control Cond. (Disregarding AM)
Figure # 7 Average Altruism Scores Of Males And Females With HAM (In Control Condition)

Figure # 8 Average Altruistic Behaviour Scores Of Males and Females in with (Experimental Condition)
Figure # 9 Average Altruism Scores Of Males And Females In LAM (In Control Condition)

Figure # 10 Average Altruistic Behaviour Scores In Males and Females with LAM (In Exp. Cond.)
Figure # 11 Average Altruism Scores Of Males And Females With HAM (Disregarding Exp. Condi.)

Figure # 12 Average Altruistic Behaviour of Males and Females with LAM (Disregarding Exp. Condi.)
Figure # 13 Average Altruism Scores Of Males And Females In Control Condi. (Disregarding AM)

Figure # 14 Average Altruistic Behaviour of Males and Females in Exp. Condi. (Disregarding AM)
Figure # 15 Average Altruism Scores Of Males And Females With HAM (in Control Conds.)

Figure # 16 Average Altruistic Behaviour Scores of Males and Females with HAM (in Exp. Condi.)
Figure # 17 Average Altruism Scores Of Males And Females With LAM (In Control Condition.)

Figure # 18 Average Altruistic Behaviour Scores of Males and Females with LAM in Exp. Condition.
It seems that the cultural patterns specifically in man dominating society like ours provide a specific status and related roles to females. These roles insist on a higher level of sensitivity towards human problems as well as a helpful attitude among females. In the process of conformity with the social norms females adopt an altruistic attitude which prone them to prove themselves helpful to the needy ones. The male dominance also brings a situation compelling females to assist them in almost all situations. This also leads them a better server to the society. It is also a general experience that females are more emotional and more empathetical than males which are considered of vital roles in altruism. Because of all these, probably the females have been found more altruistic in comparison to males who were rather expected to excel females on the ground of other findings (Latane and Darley, 1970; Pomazal & Clore, 1973; Clark, 1974; West et al. 1975). The hypothesis was also based on the fact that being more potential, males are expected more to render the help. Since in the present study, the altruistic behaviour was studied in an experimental situation wherein the subject had to share the obtained reward with the co-participant. This task actually didn’t require any physical potential and neither it had been any emergency situation wherein the males can be expected to be more helpful. On the contrary being expected to maintain human relations more empathetically, females learn to be more considerate and sharing in comparison to males. Haffman (1975) found that females are more strongly committed to humanistic ideals than males. In the present research, the subject had been asked to share the obtained rewards which was received by the subjects after working together with the co-participant. This may also be the reason for higher altruism in females as found in the present study.

**EFFECT OF APPROVAL MOTIVE ON ALTRUISTIC BEHAVIOUR**

The second problem of the present research was in relation to the effect of approval motive on altruistic behaviour. It was hypothesized that subjects with high approval motive would be more altruistic than those with low approval motive.
Figure # 19. Average Altruism Scores Of High And Low Approval Motive Groups.

Figure # 20. Average Altruistic Behaviour Scores Of High And Low Approval Motive Groups.
A Perusal of Table 8 reveals that in testing situation average altruism score of high approval motive subjects \((M = 47.2175, \text{Fig 19})\) is higher than low approval motive subjects \((M = 44.035, \text{Fig 19})\). Similarly, perusal of Table 9 reveals that in experimental situation average altruistic behaviour score of high approval motive subjects \((M = 2.6975, \text{Fig 20})\) is higher than that of low approval motive subjects \((M = 2.325, \text{Fig 20})\). Two F-Ratios were computed in two three-way ANOVA including two other independent variables i.e., sex and social facilitation. The obtained F-ratios 9.09 (in testing situation) and 13.33 (in experimental situation) for the difference between high and low approval motive subjects in respect of their altruism are significant at .01 level of confidence for 1 and 232 degrees of freedom. Furthermore, 16 CRs were computed to ascertain the significance of difference between high and low approval motive subjects belonging to various subgroups in regard to their altruistic behaviour. Out of these 16 CRs, eight CRs were for testing situation (Table 14, Fig 21 to 28) and rest eight CRs were for experimental situation (Table 14, Fig 29 to 36). Fifteen of these 16 CRs are significant at either .05 level or .01 level of confidence in one tailed test for respective degrees of freedom. The significant F-ratios and CRs provide empirical evidence to retain the experimental hypothesis refuting the null hypothesis in this regard. In other words, it can be concluded that high approval motive subjects are genuinely higher in altruism in comparison to low approval motive subjects. This finding is in consonance with those of Dolard and Adelberb, 1967; Bryan et al., 1971; and Midlarsky et al., 1973; who observed that high approval motive subjects tended to be more altruistic.

Crowne and Marlowe (1964) assert that one agrees or disagrees with socially desirable or undesirable statements because of a motivational disposition which has been designated as approval motive. On the basis, further, it is stated that one having high degree of approval motive would agree to great number and varieties of socially desirable statements. A close review of literature on approval motive indicates seven tentative areas - normative behaviour, social conformity, positive self presentation, defensiveness, dependency, social responsiveness and social approval - along which behaviour indicative of a approval motive occur. The area of normative behaviour deals with behavioural tendencies which are largely
concerned with compliance to norms shared by a cultural group and strongly govern the self presentation (Goffman, 1971). Being more than a standard, normative behaviour is useful in gaining approval. Similarly social conformity refers to a person's changing his or her behaviour to fit with the expectations or demands of other. Hence, naturally, when a person is expected to act unselfishly, when he is expected to help a needyone without any reward in return, he does act accordingly, specially one who is of high approval motive who agrees with such socially desirable statements. And this way this person of high approval motive able to present one self to the society positively and exhibit high social conformity which in turn is useful primarily for gaining approval form other people.

Moreover, the person, who needs approval does not want to be cornered which may be a threatening situation to his ego leading to an uncomfortable state for him. Thus, the person with high approval motive makes best of his efforts to present good account of himself in the eyes of others and thus act altruistically. The subjects with high aproval motive, in the present research, were also exposed to a situation wherein they had to share the received reward with their coparticipants and certainly the best self presentation and defensiveness would have been in giving more of the rewards to the coparticipants. This may also be the reason of high altruistic behaviour of the subjects with high approval motive.

Apart of it a person with high approval motive prefers to become dependent on individuals and social groups of various kinds to cope with environmental demands. And as a consequence perceives this reality in a positive manner (Schneider, 1969). This prones him to be altruistic as to prove himself as the vital one which in turn increase his social responsiveness i.e; the tendency to respond to social stimuli in high frequency and magnitude. Thus, this high dependency and high social responsiveness lead a person to behave in a more altruistic manner.

The last area of approval motive is social approval which refers to active approval seeking from the agents of social reinforcement as it is an important incentive for approval motivated persons. The behavioural tendencies emplied in active approval seeking, require
the individual to associate with an approach to or engage in such activities or social interactions that lead to attainment of approval from individuals, groups, or any other social organization which is perceived, directly or indirectly by the individual as socially desirable. Certainly when a subject in experimental situation is expected to share the reward received with the coparticipant after working together on a task it is a reinforcing situation for him if he shares more of the reward with the coparticipant than keeping a larger share for himself, thus acting altruistically in a social situation which brings in the approval of other present in the situation.


Figure # 21 Average Altruism Scores In HAM vs LAM Males (Dis Regaring Exp. Condi.)
Figure # 22 Average Altruistic Behaviour Scores in HAM, and LAM Females (Disregarding Exp. Condi.)
Figure # 23 Average Altruism Scores in HAM and LAM in Control (Disregarding Sex)

Figure # 24 Average Altruistic Behaviour Scores In HAM And LAM Exp. Cond. (Disregarding Sex)
Figure # 25 Average Altruism Scores in HAM and LAM Males in Control Condition

Figure # 26 Average Altruistic Behaviour Scores In HAM And LAM Females in Control Condition
Figure # 27 Average Altruism Scores Of HAM Males and LAM Females in Exp. Con.

Figure # 28 Average Altruistic Behaviour Scores of HAM Females And LAM Females in Exp. Condi.
Figure #29 Average Altruism Scores in HAM and LAM Males (Disregarding Exp. Condition)

Figure #30 Average Altruistic Scores of HAM And LAM Females (Disregarding Exp. Condi.)
Figure # 31 Average Altruism Scores of HAM And LAM in Control (Disregarding Sex)

Figure # 32 Average Altruistic Scores of HAM And LAM in Experimental Condition (Disregarding Exp. Condi.)
Figure # 33 Average Altruism Scores of HAM and LAM Males in Control Condition.

Figure # 34 Average Altruistic Behaviour Scores of HAM And LAM Females Control.
Figure # 35 Average Altruism Scores of HAM And LAM Males in Exp. Condition.

Figure # 36 Average Altruistic Behaviour Scores of HAM And LAM Females in Experimental Cond.
EFFECT OF SOCIAL FACILITATION ON ALTRUISTIC BEHAVIOUR

Third problem of the present research was whether social facilitation exerts any effect on altruistic behaviour. It was expected that the presence of audience would increase the occurrence of altruistic behaviour, that is, in the condition of social facilitation, the subjects would exhibit more altruistic behaviour than in control condition wherein the subjects would be alone.

Figure # 37 Average Altruism Scores in Control And Experimental Conditions In Testing Situation

Figure # 38 Average Altruistic Behaviour Scores In Control And Experimental Conditions in Experimenta Sitaion.
Figure # 39 Average Altruism Scores of Male in Control and Experimental Cond. (Disregarding AM)

Figure # 40 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond. (Disregarding AM)
A perusal of Table 8 (testing situation) reveals that average altruism scores (M=46.75) in experimental condition (social facilitation condition) is higher than that (M=44.502 Fig 37) in control condition (solo condition) (fig 37). Similarly the perusal of Table 9 (experimental situation) reveals that average altruistic behaviour score of subjects in social facilitation condition (M=2.625, Fig 38) is higher than that of subjects in solo condition (M=2.40, Fig 38). This tendency of higher altruism in social facilitation condition than in solo condition is tested statistically with the help of F statistics. Two three-way ANOVA were computed comprising two more factors i.e; sex and approval motive. The obtained F-ratios for the difference in both the conditions (F=4.53, for testing situation, Table-10) and (F=4.76 for experimental situation, Table -11) are significant at .05 level of confidence for 1 and 232 degrees of freedom. Furthermore, 16 CRs were computed to ascertain the significance of difference between control (solo) and experimental (social facilitation) conditions in regard to their altruistic behaviour. Out of these 16 CRs, eight CRs were for testing situation (Table 16 fig 39 to 46) and rest eight CRs were for experimental situation (Table 17, Fig 47 to 54). Twelve out of these 16 CRs, are significant at .01 level of confidence in one tailed test for respective degrees of freedom. The obtained significant F-ratios and (CRs) provide sufficient statistical group to retain the research hypothesis refuting the null hypothesis. More clearly, it can be concluded that the subjects in social facilitation condition are more altruistic than those in solo condition.

In the present research altruistic behaviour of the subjects was also determined in an experimental situation wherein the subjects of control condition was asked to share the reward with the co-participant when the only two - the subject and the coparticipant were present while the subject of social facilitation condition was asked to share the reward with the co-participant in the presence of other persons. It is found that the subjects of social facilitation condition shared more of the rewards with the co-participant than those in solo condition. This findings clearly asserts the positive impact of the presence of others on altruism. Zajonc (1965), Jones and Gerard 1967 assumes that the presence of others facilitates the performance because of heightened arousal which enhance the tendency to perform dominant responses. In our society the people are expected to conform with the norms and they feel comfortable by
Figure # 41 Average Altruism Scores of HAM in Control And Experimental (Disregarding Sex)

Figure # 42 Average Altruistic Behaviour Scores of LAM in Control and Exp. Conditions. (Disregarding AM)
Figure #43 Average Altruism Scores of HAM Male in Control and Experimental Cond.

Figure #44 Average Altruistic Behaviour Scores of HAM Females in Control and Exp. Cond.
Figure # 45 Average Altruism Scores of LAM Males in Control and Experimental Cond.

Figure # 46 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond.
Figure # 47 Average Altruism Scores of HAM Male in Control and Experimental Cond. (Disregarding AM)

Figure # 48 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond.
Figure # 49 Average Altruism Scores of HAM Male in Control and Experimental Cond. (Disregarding AM)

Figure # 48 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond.
Figure # 51 Average Altruism Scores of HAM Males in Control and Experimental Cond. (Disregarding AM)

Figure # 52 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond.
Figure # 53 Average Altruism Scores of HAM Male in Control and Experimental Cond. (Disregarding AM)

Figure # 54 Average Altruistic Behaviour Scores of Females in Control and Exp. Cond.
doing so. Probably, when the subjects were asked to share the reward with co-participants which they received after working jointly on a task, there would have been heightened arousal which enhanced the dominant tendency of sharing such rewards, specially when other persons were available as the mere viewers of such sharing behaviour. The subjects of control condition shared the rewards with the co-participants in solo situation wherein no any viewer was present. This condition probably could not motivate the subjects to share more with the co-participants as in experimental condition. Since the whole responsibility of sharing behaviour was of the subjects, they felt more comfortable when shared more as per the norm with the coparticipant specially when there were other persons to observe this behaviour. It shows the facilitative effect of the presence of other on sharing behaviour which was taken as the mode of expressing altruism.

Moreover, altruistic act is a socially desirable act and the presence of others certainly facilitate this act, specially in the condition wherein the person views himself alone to be responsible to render the altruistic act and where there is no chance of diffusion of responsibility in this concern. In the present research, too, the social facilitation effect on altruism may also be attributed to this factor as while sharing the received reward with the co-participant, it was only the responsibility of the subject to exhibit to altruistic act that is sharing more of the received reward with the coparticipant and there was no one else there with whom diffusion of responsibility was possible.

The findings of the present research are in consonant with that of Guerin (1993) who observed positive effect of the presence of others on altruistic behaviour of the subjects.

**JOINT EFFECT OF FACTORS ON ALTRUISTIC BEHAVIOUR**

So far, we have been discussing the effect of a single factor (Sex, approval motive and social facilitation) on altruistic behaviour of the subjects. We can also study the joint effect of any two or more factors at a time. Thus, it may be interesting to know for example, whether males with low approval motive in social facilitation condition would differ in their altruistic behaviour from females with low approval motive in social facilitation condition. In
general, when a number of individuals or items are grouped according to several factors of classification and these factors are not independent, there is said to be interaction between these. The interaction is a measure of the extent to which the effect upon the dependent variable of changing the level of one factor depends on the level of others. Thus, the two treatments say N and P each of two level (0 and 1), the effect of four treatment combinations can be written \( n_0 p_0, n_1 p_0, n_0 p_1 \) and \( n_1 p_1 \). If the treatments are independent, the effect of varying N from \( n_0 \) to \( n_1 \) would be the same with \( p_0 \) as with \( p_1 \). The extent to which this is not so is a measure of interaction.

The combined effect of various independent factors - sex, approval motive and social facilitation on altruistic behaviour would be discussed here below.

**JOINT EFFECT OF SEX AND APPROVAL MOTIVE ON ALTRUISTIC BEHAVIOUR**

The first problem pertaining to the joint effect is in regard to the interaction effect of sex and approval motive on altruistic behaviour of the subjects. On the basis of weightage model (Table-5) it was assumed that males with high approval motive would be the best while females with low approval motive would be the worst in regard to their altruistic behaviour. The other two groups i.e., males with low approval motive and females with high approval motive would posses the intermediary position as regards to their altruistic behaviour.

It is clear from Table 18 & 19 that highest altruism scores are of high approval motive females and lowest altruism scores are of low approval motive males. Two interaction F-ratios were computed for the purpose of ascertning the significance of this interaction effect. Both the obtained F-ratios (F=2.29, Table 10, and 0.32, Table 11) are not significant at any acceptable level of confidence for 1 and 232 degrees of freedom. These nonsignificant F-ratios provide sound statistical groud to conclude that there does not exist any genenuine interaction effect of sex and approval motive on altruistic behaviour. In other, words it can be said that altruism scores of males and females do not differ much because of their different levels of approval motive. The same data also reveal that the average difference between high
i.e., solo and social facilitation. In other words, the obtained difference between males and females in regard to their altruistic behaviour does not vary considerably because of their being in the solo or social facilitation condition. The same data also reveal that the difference between solo and social facilitation condition in regard to altruistic behaviour does not vary genuinely due to the sex of the subjects. Thus, it can be concluded that though sex and social facilitation are vital factors in relation to altruistic behaviour of the subjects, that is they do exert their effect independently but not jointly on their altruistic behaviour.

JOINT EFFECT OF APPROVAL MOTIVE AND SOCIAL FACILITATION ON ALTRUISTIC BEHAVIOUR

Another problem pertaining to interaction effect is of approval motive and social facilitation on altruistic behaviour of the subjects. It was assumed that altruistic behaviour of high and low approval motive subjects would vary according to their being in solo or social facilitation condition. More specifically, the children with high approval motive in social facilitation condition would be the most altruistic, while the children with low approval motive in solo conditions would be the least altruistic. The other two groups i.e., low approval motive in social facilitation condition and high approval motive in solo condition would possess the intermediary position in regard to their altruistic behaviour.

It is clear from Table 22 that average altruism scores (testing situation) of the four subgroups based on approval motive and experimental condition i.e., high approval motive in solo, high approval motive in social facilitation, low approval motive in solo and low approval motive in social facilitation condition are 44.735, 49.70, 43.67, 44.40, respectively. Similarly average altruistic behaviour scores of the above four groups in experimental situation are 2.60, 2.795, 2.20 and 2.45, respectively (Table 23).

Two three-way ANOVA were computed to study the individual and interaction effects of three factors - sex, approval motive and social facilitation - on altruistic behaviour. One of the first order interaction was between approval motive and social facilitation which yielded a F-ratio of 6.63 (Table 10, testing situation) and another F-ratio of 0.73 (Table 11, experimental situation). The interaction F-ratio in testing situation is significant at .05 level of
confidence while that in experimental situation is not significant at any acceptable level of confidence for 1 and 232 degrees of freedom. Though the significant interaction F-ratio in testing situation signifies the fact that the two factors - approval motive and social facilitation - exert their joint effect on altruism of the subjects, this is not supported by the interaction F-ratio in experimental situation. Thus, more data may sought reached before concluding anything in this line. However, it can be said that there is tendency of high approval motive subjects to exhibit more altruism in social facilitation condition than in solo condition and in comparison to low approval motive subjects that is, altruism scores of high and low approval motive subject differ because of differential conditions. In other words, the obtained difference between high and low approval motive subjects in regard to their altruism varies because of their being in the solo or social facilitation condition. But the same conclusion can not be drawn in respect of altruistic behaviour of the subjects in experimental situation.

**JOINT EFFECT OF SEX, APPROVAL MOTIVE AND SOCIAL FACILITATION ON ALTRUISTIC BEHAVIOUR**

Last problem pertaining to interaction effect is of sex, approval motive and social facilitation on altruistic behaviour of the subjects. It was assumed that the three factors would exert their joint effect on altruistic behaviour of the subjects. More specifically, males with high approval motive in social facilitation condition would be the most altruistic while females with low approval motive in solo condition would be the least altruistic, the other subgroups would possess respective intermediary positions on the basis of model presented in Table 5. A perusal of Table 8 reveals, however, that highest altruism scores (M=49.73, testing situation) is of high approval motive females in social facilitation condition and the lowest altruism scores (M=40.97) is of males with low approval motive in solo condition. Similar pattern is observed in experimental situation also.

Two interaction F-ratios were computed to ascertain the significance of this interaction effect. The obtained interaction F-ratio is significant in testing situation (F=8.225, Table 10), while it is not significant (F=0.54, Table 11) in experimental situation at any acceptable level of confidence for 1 and 232 degrees of freedom. Hence, it requires more data to con-
clude in this regard. However, there is clear tendency of joint effect of the three factors on altruism of the subjects. Though the findings are not in consonance with the experimental hypothesis as the females and not the males are excelling the opponent sex group in respect of their altruism. Thus, it can be said that sex, approval motive, and social facilitation exert their joint effect on altruism (testing situation) but the same is not predictable in experimental situation.