CHAPTER 5

RESULTS AND DISCUSSIONS
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The present investigation deals with the effect of three variables: Achievement Motivation, Locus of Control, and Social Reinforcement on altruistic behaviour. The obtained data were analysed through appropriate statistics in the previous chapter and the results are discussed in the present chapter.

EFFECT OF INDIVIDUAL FACTORS

In the present research data were collected to study altruistic behaviour of subjects with high and low achievement motivation, internals and externals, and in three different conditions of social reinforcement i.e., social non-reinforcement (control), social hindrance (Exp.1), and social reinforcement (Exp.2). The altruism was studied in testing and experimental situation through which respectively altruism scores and altruistic behaviour scores were obtained. Altruistic behaviour scores were calculated on the basis of number of rewards shared by the subject with the co-participant (sharing behaviour).

1. ALTRUISM IN RELATION TO ACHIEVEMENT MOTIVATION

It has been assumed that subjects with low achievement motivation would be more altruistic than those with high achievement motivation. A perusal of Table 9 shows that average altruism scores of high achievement motivation subjects is 23.13 and that of low achievement motivation subjects is 30.70 (Figure 1). Similarly, it is also clear from Table 10 that altruistic behaviour scores in experimental situation are 1.62 and 2.13 (Figure 2), respectively for high and low achievement motivation subjects. Significance of these differences in favour of low achievement motivation subjects in regard to altruism were tested statistically while computing three-way ANOVA including two other
factors: locus of control and social reinforcement (Table 11 and Table 12). The obtained F-ratio for difference in altruism scores of high and low achievement motivation subjects in testing situation is 26.1647 and for difference in altruistic behaviour score in experimental situation is 29.4535. Both the F-ratios are significant at .01 level of confidence for 1 and 228 degrees of freedom which provide sound statistical ground to retain our hypothesis regarding the difference in altruism of high and low achievement motivation subjects rejecting the Null hypothesis in this regard.

![Figure #1: Average Altruism Scores Of High And Low Achievement Motivation Subjects (Testing Situation).]
The difference between high and low achievement motivation subjects as regard to their altruism has also been checked statistically by computing 11 CRs for the comparisons between high and low achievement motivation subjects in control, Exp.- I and Exp.- II conditions (disregarding locus of control Tables 13 & 14), between high and low achievement motivation subjects with internal locus of control and external locus of control (disregarding social reinforcement, Tables 15 and 16) between high and low achievement motivation subjects with internal locus of control in control, Exp.-I and Exp.-II condition and between high and low achievement motivation subjects with external locus of control in control, exp.-I and exp.-II conditions (Tables 17 and 18).

Average altruism scores of there comparable groups and the obtained CRs along with their level of significance are given in Table 13 to 18. It is clear from these tables that 9 out of the these 12 CRs are significant either at .05 or .01 level of confidence. These significant CRs also provide sufficient statistical ground to retain the experimental hypothesis for the difference between high and low achievement motivation subjects in respect of
their altruistic behaviour rejecting the Null hypothesis in this regard. It is also clear that in all the comparisons, low achievement motivation subjects excelled the high achievement motivation subjects in regard to their altruistic behaviour (Figure #3 to 24).

![Figure #3: Average Altruism Scores Of High And Low Achievement Motivation subjects in Control Condition Disregarding Locus Of Control (Testing Situation).]
Figure # 4: Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects In Control Condition Disregarding Locus of Control (Experimental Situation).

Figure # 5: Average Altruism Scores Of High And Low Achievement Motivation Subjects In Exp.-1 condition Disregarding Locus Of Control (Testing Situation).
Figure # 6 : Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects In Exp. I Condition Disregarding Locus Of Control (Experimental Situation).

Figure # 7 : Average Altruism Scores Of High And Low Achievement Motivation Subjects In Exp.-II Condition Disregarding Locus Of Control (Testing Situation).
Figure #8: Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects In Exp.-II Condition Disregarding Locus Of Control (Experimental Situation).

Figure #9: Average Altruism Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control Disregarding Experimental Conditions (Testing Situation).
Figure # 10: Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control Disregarding Experimental Conditions (Experimental Situation).

Figure # 11: Average Altruism Scores Of High And Low Achievement Motivation Subjects With External Locus Of Control Disregarding Experimental Conditions (Testing Situation).
Figure #12: Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects With External Locus Of Control Disregarding Experimental Conditions (Experimental Situation).

Figure #13: Average Altruism Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control In Control Conditions (Testing Situation).
Figure # 14: Average Altruistic Behaviour Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control In Control Condition (Experimental Situation).

Figure # 15: Average Altruism Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control In Exp.-1 Condition (Testing Situation).
Figure #16: Average Altruistic Behaviour Scores Of High and Low Achievement Motivation Subjects With Internal Locus Of Control In Exp. I Condition (Experimental Situation).

Figure #17: Average Altruism Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control In Exp. II Condition (Testing Situation).
Figure # 18: Average Altruistic Scores Of High And Low Achievement Motivation Subjects With Internal Locus Of Control, In Exp.-II Condition (Experimental Situation).

Figure # 19: Average Altruism Scores Of High And Low Achievement Motivation Subjects With External Locus Of Control, In Control Condition (Testing Situation).
Figure # 20: Average Altruistic Behaviour Scores Of High and Low Achievement Motivation Subjects With External Locus Of Control, In Control Condition (Experimental Situation).

Figure # 21: Average Altruism Scores Of High And Low Achievement Motivation With External Locus Of Control, In Exp.-I Condition (Testing Situation)
Figure # 22 : Average Altruistic Scores Of High And Low Achievement Motivation Subjects With External Locus Of Control, In Exp.-I Condition (Experimental Situation).

Figure # 23 : Average Altruism Scores Of High And Low Achievement Motivation Subjects With External Locus Of Control, In Exp.-II Condition (Testing Situation).
Hence, it can be said that low achievement motivation subjects are genuinely more altruistic than high achievement motivation subjects. This is in line with the findings of Muir and Weinstein (1962) and Berkowitz and Friedman (1967) who observed that persons with low achievement motivation tended to help more than those who were of high achievement motivation. McClelland (1967) have shown that people with high achievement motivation like to assume personal responsibility for solving problem. The reason for this is that by assuming individual responsibility they get a sense of achievement satisfaction from completing a task. But on the other hand when success depends beyond their control, or when they are working exclusively on someone else problems. Their achievement satisfaction arises from being initiated the action that is successful, rather than from public recognition for an individual accomplishment. This very specific characteristic of person with high achievement motivation prevents him to act in this situation where he is expected to act altruistically, as the altruistic act does not involves his ego and performing on it also does not provide any achievement satisfaction to the performer. Besides, some studies.
have provided direct or indirect evidence that people with high achievement motivation do not respond positively to suggestions from others as to what they should do, or think or believe. Normative approach explains the altruistic behaviour as being developed through social norms available in the society in this respect. A person with low achievement motivation tends to conform with these norms while that with high achievement motivation in reluctant to conform with. These leads to person with high achievement motivation to be less altruistic in comparison to one with low achievement motivation. In altruistic behaviour demanding situation does not involves any competition and thus does not attract a person with high achievement motivation. Contrary to this, the same situation attracts a person with low achievement motivation to act altruistically as he is not keen in getting satisfaction through achievement in competitive situation. He rather finds pleasure in helping others or to say act altruistically. Ray and Najman (1988) also observed that materialistic achievement motivation and altruism are opposed.

2. ALTRUISM IN RELATION TO LOCUS OF CONTROL

It has been expected that external exhibit more altruistic behaviour as compared to internals. It is clear from Table 19 that average altruism scores (Testing Situation) of external is 28.785 and that of internal is 25.10 (Figure 25).
The difference between the two groups in respect of their altruism scores in favour of externals was tested statistically while computing a three-way ANOVA along with two other factors i.e., achievement motivation, and social reinforcement (Table 11). The obtained F-ratio for the difference in altruism scores of externals and internals is 6.282 which is significantly higher than those expected from chance fluctuations, the confidence level being .05 for -1 and 228 degrees of freedom.

Similarly, a perusal of Table 20 and Figure 26 reveals that average altruistic behaviour scores (Experimental Situation) of externals (M = 2.033) is higher than that of internals (M = 1.72).

Figure # 25 : Average Altruism Scores With Internal And External Locus Of Control Subjects Disregarding Achievement Motivation (Testing Situation).
The difference between the two groups in regard to their altruistic behaviour was tested statistically by computing an F-ratio in a three-way ANOVA along with two other variables i.e., achievement motivation and social reinforcement (Table 12). The obtained F-ratio for the difference in altruistic behaviour scores of external and internals is 11.0395 which is significant at .01 level of confidence for 2 and 228 degrees of freedom.

The significant F-ratios prove the research hypothesis regarding the difference in altruism of externals and internals rejecting the Null hypothesis in this regard. In other words, it can be concluded that externals are genuinely more altruistic than internals.

As in the case of achievement motivation here also 11 CRs were calculated each for testing and experimental situations to observe the significance of difference between the average altruism and altruistic behaviour scores of internals and externals belonging to various sub-groups. Internals Vs externals in control condition disregarding achievement motivation, internals Vs
externals in control condition disregarding achievement motivation, internals Vs externals in Exp. I condition disregarding achievement motivation condition, internals Vs externals in Exp.-II condition disregarding achievement motivation, internals with high achievement motivation Vs externals with high achievement motivations disregarding social reinforcement, internals with low achievement motivation Vs externals with low achievement motivation disregarding social reinforcement, internals with high achievement motivation Vs externals with high achievement motivation in Exp.-I condition, internals with high achievement motivation Vs external with high achievement motivation in Exp.-II condition, internals with low achievement motivation Vs externals with low achievement motivation in control condition, internals with low achievement motivation Vs external with low achievement motivation Vs externals with low achievement motivation in Exp.-II condition. Average altruism scores (testing situation) of these comparable groups and the obtained CRs along with their level of significance are given in Table 21 and are exhibited in Figures 27 to 37.

![Figure 27](image-url)

**Figure # 27:** Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects In Control Condition Disregarding Achievement Motivation (Testing Situation).
Figure # 28: Obtained Altruism Scores Of Internal And External Locus Of Control Subjects In Exp.-I Condition Disregarding Achievement Motivation (Testing Situation).

Figure # 29: Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects In Exp.-II Condition Disregarding Achievement Motivation (Testing Situation).
Figure # 30 : Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation Disregarding Experimental Conditions (Testing Situation).

Figure # 31 : Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation Disregarding Experimental Conditions (Testing Situation).
Figure #32: Obtained Average Altruism Scores of Internal and External Locus of Control Subjects with High Achievement Motivation in Control Condition (Testing Situation).

Figure #33: Obtained Average Altruism Scores of Internal and External Locus of Control Subjects with High Achievement Motivation in Exp.-I Condition (Testing Situation).
Figure # 34 : Obtained Average Altruism Scores Of Internal And External Locus of Control Subjects With High Achievement Motivation In Exp.-II Condition (Testing Situation).

Figure # 35 : Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation In Control Condition (Testing Situation).
Figure # 36: Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation In Exp.-I Condition (Testing Situation).

Figure # 37: Obtained Average Altruism Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation In Exp.-II Condition (Testing Situation).

Average altruistic behaviour scores (experimental situation) of these comparable groups and the obtained CRs alongwith their level of significance are given in Table 22 and are exhibited in Figure 38 to 48.
Figure # 38 : Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects In Control Condition, (Experimental Situation)

Figure # 39 : Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects In Exp.-1 Condition Disregarding Achievement Motivation (Experimental Situation)
Figure # 40: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects In Exp.-II Condition (Experimental Situation)

Figure # 41: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation, Disregarding Experimental Condition (Experimental Situation)
Figure # 42 : Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation, Disregarding Experimental Condition (Experimental Situation)

Figure # 43 : Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation, In Control Condition (Experimental Situation)
Figure # 44: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation, In Exp.-I Condition (Experimental Situation)

Figure # 45: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With High Achievement Motivation, In Exp.-II Condition (Experimental Situation)
Figure # 46: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation, In Control Condition (Experimental Situation)

Figure # 47: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation, In Exp.-1 Condition (Experimental Situation)
It is clear from Table 21 and 22 that only two CRs in testing situation and 4 CRs in experimental situation are significant. However, in all comparisons the externals excelled the internals. In other words, on the basis of significant F-ratio it can be said that the subjects with the external locus of controls are truely more altruistic than those with internal locus of control. However, looking at the maximum insignificant CRs it is advisable to work on a larger sample to confirm the findings. The present findings go in line with those of Madsen and Shapira (1970), Madsen (1971), Kagan and Madsen (1971), Hill (1984) and Krantz et al. (1986) who showed that externals are more cooperative and engaged in prosocial leadership than internals as they believe in their own control over events and are prepared to adopt a more aggressive style in life situations. Contrary to this the external display dependency on others for their social existence and thus tend not to act aggressively rather to act altruistically.

Figure # 48: Obtained Average Altruistic Behaviour Scores Of Internal And External Locus Of Control Subjects With Low Achievement Motivation, In Exp.-II Condition (Experimental Situation)
Being a member of one's society, the individual needs to be well integrated with their group members and altruistic behaviour helps to achieve this by maintaining prestige. According to Rottes (1966) a person who is relatively internal believes that he is responsible for his destiny whereas a person with externals locus of control typically attributes the cause of his outcome to chance, fate or the acts of others. He does not view himself as able to influence what happens to him, he does not expect reward for solving task or performing well. Bialer (1961) theorized that internals are more sensitive, to the competitive aspects of situation as well as motivated to attain personal success than the externals. Thus, it is very natural on the part of externals to be more altruistic, as by adopting such trait they are able to conform with socio-cultural norms of doing good to others by benefiting the other people. Dependency on other people too leads to cooperativeness and a feeling of empathy are essential element in altruism. Moreover, the internals are found to be more achievement oriented than the externals Lefcourt (1972). As the situation demanding altruistic behaviour do not involve any feeling of competition, and thus feeling of achievement, the internals who insist on this much, are reluctant to render their help-giving behaviour. Contrary to this, the externals being oriented towards others in society, find themselves very comfortable when altruistic act is demanded in the situation. In the present study, too, the finding are in favour of externals in regard to altruistic behaviour.

3. ALTRUISM IN RELATION TO SOCIAL REINFORCEMENT

The third important independent variable dealt in the present investigation is social reinforcement in respect of its effect on altruistic behaviour. It was hypothesized that under the condition of social reinforcement (Exp.-II) the subject would exhibit the highest altruism while the subjects in social hindrance condition ( Exp.-I ) would be the poorest in this regard. The subjects of social non-reinforcement condition ( control) would be in between the two groups in
respect of their altruistic behaviour. It is clear from Table 9 that average altruism scores (testing situation) of social non-reinforcement group (control), social hindrance group (Exp. I) and social reinforcement group are 27.812, 22.587, and 30.425 (Figure 49).

Figure # 49 : Obtained Average Altruism Scores In Three Conditions Social Non-Reinforcement, Social Hindrance And Social Reinforcement For Various Sub-Groups (Testing Situation)

It is also clear from Table 10 that altruistic behaviour scores of the respective three groups are, 1.95, 1.65, and 2.025 (Figure 50).
It is clear that subjects of social reinforcement group showed the highest altruism in testing and experimental situation both.

The significance of these difference between control and two experimental groups was tested by computing two three-way ANOVA - one for testing situation and another for experimental situation - including two other independent variables i.e., achievement motivation and locus of control. The obtained F-ratio for the differences in testing situation (F = 9.833, P < .01, Table 11) and for the differences in experimental situation (F = 5.792, P < .05, Table 12) are significant for 1 and 228 degrees of freedom. The difference between control Vs Exp. I, Control Vs Exp. II, and Exp.-I Vs Exp.-II were also tested by computing 24 CRs for different comparable sub-groups as specified in Table 23 and 24. The average altruism scores (testing situation) of all 24 comparable groups and the obtained CRs for the differences along with level of significance are given in Table 23 and for experimental situation are given in Table 24. It is clear that in all the comparison, the subjects in social reinforcement group excelled than other two groups i.e., the subjects in social non-reinforcement...
group and social hindrance group in regard to their altruistic behaviour. It is also noteworthy that the subjects in social hindrance group are the lowest in this regard in all the comparisons. It is clear from Table 23 that 10 CRs in testing situation and 7 CRs in experimental situation are significant either at .05 or .01 level of confidence, which call for more data to throw better light on this regard. However, the significant statistics specifically F-ratio provide ample statistical ground to retain the experimental hypothesis rejecting the Null hypothesis of no difference. In other words, it can be said that altruistic behaviour of social reinforcement group is genuinely the highest while that of social hindrance group is truly the lowest. More specifically, social reinforcement proves the subjects to act more altruistically while social hindrance restricts the subjects to act altruistically.

As stated earlier, the subjects of social reinforcement group were briefed a story before being tested for their altruistic behaviour, wherein the character was appreciated and reinforced for his altruistic act while the subjects in social hindrance group were briefed a story before being tested for their altruistic behaviour, wherein the character was rebuked and discouraged for his altruistic act. The subjects of control group in non-reinforcement condition were not briefed any such stories before being tested for their altruistic behaviour. It is clear that observing a character (model) reinforced for his altruistic act tended the subjects of social reinforcement group to share more of their reward received with the coparticipant on the task on which they performed jointly. Contrary to this, observing a character (model) discovered for his altruistic act tended the subjects of social hindrance group not to act in an altruistic way rather to act in a selfish manner. The findings of the present research are in line with those of Durkheim (1951), Aronfreed and Paskal (1965), Midlarsky and Bryan (1967), Rosenhan (1969), Elliot and Vasta (1970), Bryan et al. (1971), O’Connor (1972), Moss & Page (1972), Midlarsky et al. (1973), Weiss et al. (1973), Voss (1974), Sprafkin et al. (1975), Peterson et al. (1984), Winett (1987), Mary et al. (1987)
Forge & Phemister (1987), Pastridge et al. (1987) which confirms the vital role of social reinforcement in proving the children to exhibit more altruistic behaviour in comparison to the children who were not socially reinforced to act altruistically.

Bandura (1971) summarized the function of the reinforcement in learning in social situation. Bandura (1971) asserts that reinforcement convey information to performers about the types of responses that are appropriate. Selective reinforcement directs performers attention to correlated environmental stimuli that signify probable response consequences. Previous reinforcement create expectations that motivate actions designed to secure desired rewards and to avoid injurious outcomes. Contrary to this, punishing experience can endow persons, places, and things with fear-arousing properties that inhibit responsiveness. A given history of positive or negative reinforcement can alter people’s self evaluation in ways that affect their willingness to exhibit behaviours that are discrepant with their self-attitudes and the determination with which they perform them. And finally, the treatment one receives alters liking and respect for the reinforcement agent. Considering these functions of social reinforcement and social hindrance, it is reasonable to conclude that the subjects who receive social reinforcement are certainly more altruistic than those who faced social hindrance.

INTERACTION EFFECT

So far, we have been discussing the effect of a single factor (achievement motivation, locus of control, and social reinforcement) 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 see, for example, high and low achievement motivation subjects would differ because of their internality or externality. In general, when a number of individual or items are grouped according to several factors of classification and these factors are not independent, there is said to be interaction between them. 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 (0 and 1), the effects of four treatment combinations can be written \( n_0p_0, n_0p_1, n_1p_0, \) and \( n_1p_1 \). 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 effects of various independent factors dealt in the present investigation on altruistic behaviour are discussed below.

1. COMBINED EFFECT OF ACHIEVEMENT MOTIVATION AND LOCUS OF CONTROL

It is interesting to see whether achievement motivation and locus of control yield any significant interaction effect on altruistic behaviour of the subjects. In other words, the question arises whether subjects with high and low achievement motivation who are of different locus of control exhibit similar altruistic behaviour or is there any interaction effect in respect of their altruistic behaviour. For the present research, it was assumed that low achievement subjects with external locus of control would be the highest on altruism and the high achievement motivation subjects with internal locus of control would be the lowest in this regard, the other two groups would remain in between the two extreme groups. In other words, there would exist an interaction effect of achievement motivation and locus of control.

A three-way analysis of variance was computed to study the individual and interaction effect of the three variables on altruistic behaviour of the subjects, wherein one of the first order interaction was between achievement motivation and locus of control which yielded an F-ratio of 0.6854 in testing situation (Table II) and another F-ratio 0.01607 in experimental situation (Table 12). Both the obtained interaction F-ratios are not significant at any accepted level of confidence for 1 and 228 degrees of freedom. These insignificant F-ratios clearly indicate that both the factors - achievement motivation and locus of

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control - are independent of each other as regards to their effect on altruistic behaviour of the subjects. In other words, high and low achievement motivation subjects do not vary considerably because of their internality and externality. The same data also reveal that the average difference between internals and externals in respect of their altruistic behaviour does not vary genuinely because of high and low achievement motivation. We have seen above that low achievement motivation subjects are more altruistic as externals in comparison to internals. The insignificant interaction between achievement motivation and locus of control signifies that altruistic behaviour of high and low achievement motivation subjects is not affected by their locus of control: internal and external. Hence our hypothesis does not stand the experimental test, that is, both the factors are independent in respect of their effect on altruistic behaviour of the subjects.

(ii) COMBINED EFFECT OF ACHIEVEMENT MOTIVATION AND SOCIAL REINFORCEMENT

It is also interesting to see whether social reinforcement affects persons with different achievement motivation level equally or person with high achievement motivation is affected more by social reinforcement than person with low achievement motivation. To state it more directly, we wanted to study, whether high and low achievement motivation subjects would exhibit equal or differential altruistic behaviour because of social reinforcement.

As stated earlier, low achievement motivation subjects excelled those with high achievement motivation in regard to their altruistic behaviour. Separately, it has been found too that social reinforcement has positive while social hindrance has negative effect on altruistic behaviour of the subjects. In the light of the above mentioned effect of achievement motivation and social reinforcement it was hypothesized that low achievement motivation subjects in social reinforcement condition would be the best while high achievement motivation subjects in social hindrance condition would be the poorest in regard
to their altruistic behaviour. In other words, there would exist considerable joint effect of achievement motivation and social reinforcement on subjects altruistic behaviour.

In order to test the aforesaid hypothesis one F - ratio for interaction between achievement motivation and social reinforcement was computed in a three - way ANOVA testing situation (Table 11) and another F-ratio for the purpose was computed for experimental situation (Table 12) . The first order interaction between AM X SR gave an F-ratio of 0.2682 (testing situation) and an F-ratio of 0.33755 (experimental situation) which are not significant at any acceptable level of confidence for 2 and 228 degrees of freedom. The insignificant variables provide us with a statistical ground that high and low achievement motivation subjects are not differentially affected by social reinforcement in regard to their altruistic behaviour. More specifically, the two independent variables do not exert any considerable joint effect on altruistic behaviour of the subjects, rather they are independent in this regard.

(iii) COMBINED EFFECT OF LOCUS OF CONTROL AND SOCIAL REINFORCEMENT

Equally of interest is to study whether social reinforcement affects altruistic behaviour of internals and externals differentially. As has already been discussed earlier that externals were found to be more altruistic than the internals and similarly, social reinforcement encouraged altruistic behaviour while social hindrance discouraged altruistic behaviour of the subjects. The interaction effect between the two factors was tested in two three - way ANOVA computed for three factors : achievement motivation, locus of control and social reinforcement one for testing situation (Table-11 ) and second for experimental situation (Table 12). The interaction between locus of control and social reinforcement yielded F- ratio of 0.1659 (testing situation) and 0.03072 (experimental situation) which are not significant at any acceptable level of
Confidence for 2 and 228 degrees of freedom indicating thereby that internals and externals do not exhibit differential altruistic behaviour because of three different conditions of social reinforcement i.e. social non-reinforcement, social hindrance and social reinforcement. In other words, it can be said that internals and externals do not differ in respect of encouraging effect of social reinforcement or discouraging effect of social hindrance on altruistic behaviour of the subjects. Thus, the obtained data reject the experimental hypothesis in regard to interaction effect of the two factors on altruistic behaviour of the subjects.

(iv) COMBINED EFFECT OF ACHIEVEMENT MOTIVATION, LOCUS OF CONTROL AND SOCIAL REINFORCEMENT

Upto now interaction effect of either of these independent variables on altruism was discussed. The experimental design of the present research was so formed that subjects of high and low achievement motivation, internals and externals were studied for their altruistic behaviour in three conditions - control (social non-reinforcement), exp.-I (social hindrance) and exp.-II (social reinforcement). This provides an opportunity to see the joint effect of any two or three factors on altruistic behaviour of the subjects. The specific problem here is to study the effect of social reinforcement/hindrance on altruistic behaviour of high/low achievement subjects who are internals and externals. The roles of achievement motivation and locus of control in altruism were confirmed and discussed earlier. Low achievement subjects and externals have been found to be more altruistic than their counterparts i.e., high achievement motivation subjects and internals social reinforcement is found to exert its discouraging effect on altruism of the subjects. Keeping in view of these independent set of findings, it was expected that the low achievement motivation subjects with external locus of control in social reinforcement condition would be the best while high achievement motivation subjects with internal locus of control in
social hindrance condition would be the poorest in regard to their altruistic behaviour. The other sub groups were expected to stand in between these two extreme groups. Thus, it was hypothesized that there would arise a significant effect among the three variables - achievement motivation, locus of control and social reinforcement.

To test this hypothesis, two interaction $F$ - ratios - one in testing situation (Table 11) and second in experimental situation (Table 12) were computed. The obtained $F$-ratios ($F = 1.1313, P > .05$, Table 11 and $F = 0.46, P > .05$, Table 12) are not significant at any acceptable level of confidence for 2 and 228 degrees of freedom. In other words, it can be said that there does not exert any genuine interaction effect among the three variables - achievement motivation, locus of control and social reinforcement - on their altruistic behaviour. Thus, the experimental hypothesis is rejected accepting the Null hypothesis in regard to the combined effect of the three independent variable on altruism of the subjects. Further research is suggested to throw more light in this concern.

In nutshell, it can be concluded that the three independent variables considered in the present research i.e., achievement motivation, locus of control and social reinforcement have their definite independent say in altruism of the subjects but the three factors do not exert any joint effect at first order or second order level.