CHAPTER V

DISCUSSION

This chapter is devoted to interpretation of results presented in the preceding chapter and to discuss them in the light of earlier researches.

Not many investigations have been conducted with the experimental model used here. Hence, the sources of comparison are not reliable to the extent they would have been if the design of other researches was the same as that of this study. Another important drawback, as far as search for comparative results go, has been the absolute absence of any study in which job satisfaction and employees' morale both have been studied together. There have been theoretical discussions about terminology and 'components', but nowhere, to the knowledge of this investigator, has a study been reported which took into account job satisfaction as well as employees' morale. Added to this stands the absence of semantic sophistication which has been responsible for giving indiscriminately the name 'job satisfaction' or 'employees' morale' to studies which are not studying the variables their names suggest them to be studying.

Table I-IV in the preceding chapter records the scores obtained by supervisors in group A and B on the S.P. Inventory and the Interview Schedule. These scores were
obtained according to the scoring plan given in Chapter III. The results contained in the said table do not require any further statistical treatment. An inspection of the scores given therein suggests that supervisors in group A tend to favor democratic practices and supervisors in group B tend to favor autocratic practices. Hence, these two form distinctly antithetical groups. The impact of the leadership provided by either of these antithetical groups is studied on the job satisfaction and morale of the work force which they lead.

Results indicating job satisfaction and morale of workers under autocratic and democratic organizational structures are presented in tables 2-IV to 24-IV.

Observing the results contained in table 2-IV, we find that as far as the overall satisfaction of employees in group A and B is concerned marked differences exist. The mean satisfaction score for group A is 41.5 whereas for group B it is 33.508. The median is 39.104 for group A and 33.54 for group B. Both these measures of central tendency indicate that on an average higher overall satisfaction is to be found in employees under democratic organizational structure compared to employees under autocratic organizational structure. One striking feature of the two measures of central tendency in this case is their close approximation. This is a favorable reflection upon the nature of distribution.
The Q1 and Q3 measures also indicate marked discrepancy in the overall satisfaction scores. The Q1 for group A is 35.02 whereas for group B it is 28.716. The Q3 for group A is 44.22 whereas for group B it is 38.316. The Q1 and Q3 values for the two groups clearly indicate that employees in group A score better (= higher) than their counterparts in group B indicating higher overall satisfaction in group A.

The Q values for the two series indicate that there is greater homogeneity in scores for group A as compared with scores obtained by group B.

Garrett (1961; p. 47) observes that since the Q measures "the average distance of the quartile points from the median, it is a good index of score density at the middle of the distribution. If the scores in the distribution are packed closely together, the quartiles will be near one another and Q will be small."

Comparing S.D's values we find that the S.D's for group A and B differ considerably. Group A has a larger mean and a larger S.D. compared to group B. To establish the exact relationship of a given S.D with its corresponding mean value usually the Coefficient of Variation or CV is computed. The CV is also known as the 'Relative Standard Deviation'. It is a unit-free measure expressing the
"standard deviation as a percentage of the mean, it provides a measure of variability relative to average value". (Tate 1955, p. 168). It is computed by the following formula:

\[ CV = \frac{100 \times S.D.}{\text{Mean}} \]

Taking scores from table 2-IV we find the CV's as follows:

For group A, CV is:
\[ 100 \times \frac{13.7}{41.5} = 33.1\% \]

For group B, CV is:
\[ 100 \times \frac{7.6}{33.6} = 22.3\% \]

From the above we infer that the two groups have dissimilar variation. Group A varies to a greater extent than group B.

Studying table 10-IV we find that there exist considerable differences in the extent to which the two groups are satisfied. In group A, 42.3% of employees are found to be highly satisfied whereas only 20.6% of employees are satisfied to the same extent in group B. 45.9% are found to be moderately satisfied in group A; this is close to the figure 41.9% for group B. Only 11.7% are found to be dissatisfied in group A, whereas in group B 37.4% are found to be dissatisfied. This finding suggests that a very large number of employees in group A are satisfied compared with group B employees.

Applying the Kolmogorov-Smirnov two-sample (one-tailed) test we find that the two groups differ significantly from each other. The difference is in the expected direction.
and significant at .001 level. This confirms hypothesis I(a) which states that "Level of overall job satisfaction under the democratic organizational structure will be high compared to the overall job satisfaction under autocratic organizational structure."

All these results confirm that the overall satisfaction of group A is better than that of group B.

Table 3-IV contains scores obtained by the two groups on the job area of the Inventory. The mean and median values for group A are higher in this area as compared with those of group B. The respective values of mean and median for group A are 10.60 and 10.54; for group B the respective values are 8.93 and 8.24. A revealing feature of the mean and median values in the two series is that they are very close to one another. The difference in the mean and median of group A is only .16, for group B it is .06. Apparently, it indicates normality of the distribution. The S.D's of the two series are very close to each other, being 2.9 for group A and 2.91 for group B. To compare these in relation to their respective means we convert the S.D's into CV's. Thus:

CV for group A is: \[ \frac{2.9 \times 100}{10.60} = 27.3\% \]

CV for group B is: \[ \frac{2.91 \times 100}{8.2} = 35.6\% \]

CV's for the two series indicate that the scores of group A have less variability than scores of group B.
because the S.D. of group A is 27.32 of the mean as compared with 36.62 for group B.

The Q1 and Q3 values follow the trend of mean and median for the two groups. The score lying at Q1 for group A is 8.5 whereas it is only 6.2 for group B. Similarly, score at Q3 for group A is 12.704 which favourably compares with 10.34 for group B. These values suggest that low scores in group A score better than low scores in group B on the Job Area. High scores of group A, similarly, score better than their counterparts in group B. An interesting finding is that although there is considerable difference between the means, medians, quartiles, and S.D's for the two series yet their Q's are very close to one another; 2.41 for group A and 2.07 for group B. This indicates that though the two series differ in many respects from one another yet the accumulation of scores in the middle of the two distributions is almost similar.

Comparing the extent of satisfaction in the Job Area for the two groups (table 11-IV) we find that 36.9% of employees in group A are highly satisfied compared with only 13.8% in group B. 48.3% are categorized as moderately satisfied in group A and 46.4% in group B. Whereas the percentage of dissatisfied workers is 40.0 in group B, it is only 14.6 in group A. This means that about 2.7-times more employees are
rated as highly satisfied in group A as compared to group B. The discrepancy between the two groups is small - 1.95 only - when the extent is moderate satisfaction. But 26.43 more are found to be dissatisfied in group B as compared with group A. This shows that considerably better (greater) satisfaction in the job area prevails in group A compared with group B.

When we apply the Kolmogorov-Smirnov two-sample (one-tailed) test to determine the significance of difference we find that difference between the two series is significant at .001 level (table 9-IV, item 2). This confirms hypothesis I (b) which states that "level of job satisfaction in the "Job Area" will be high under democratic organizational structure compared to the level of job satisfaction under autocratic organizational structure".

Perusal of table 15-IV provides further insight into the opinions held by workers of the two groups regarding some important aspects of their job. There are six aspects of the job which are considered favourably by a higher percentage of group B workers. These are: work not considered dull and dangerous (group A, 39.8; group B, 59.9); satisfaction with hours of work (group A, 47.5; group B, 48.03); fellow workers - pleasant to work with (group A, 33.8; group B, 54.4); fellow workers - co-operative and helpful (group A, 71.1; group B, 72.9); financial returns (group A, 36.7; group B, 38.5); and
absence of need for further training (group A, 50.3; group B, 57.4). Differences on three of the above aspects are marginal. These are: hours of work, co-operative and helpful fellow workers, and financial returns.

Comparing the other aspects of the job area it is found that a higher percentage of employees of group A report satisfaction with the following aspects: 34.6% of employees in group A do not consider their work as strenuous as against 15.4% in group B; 54.8% consider their work as interesting as against 42.7% ; about double the number in group A (50.3%) show satisfaction with the overtime regulations as against 26.1% in group B. 57.8% are satisfied with the prestige associated with their jobs against 39.8% in group B. 70.7% show satisfaction with the vital aspect of 'tools and physical conditions' in group A compared with only 33.6% in group B. 53.1% in group A report satisfaction with 'time for recreation' compared to 37.4% in group B.

The above findings conclusively lead us to believe that there is considerably greater satisfaction in the job area and its various aspects in group A compared with group B.

Comparing the results of the two groups on the Management area (table 4-IV) we find that the trend of results is the same as for the 'overall satisfaction' and the 'job area'. 
The following comparisons bear out this contention. The mean of group A is 10.18 against 4.1 of group B. The medians for groups A and B, respectively, are 10.86 and 3.7. S.D's for groups A and B respectively are 6.6 and 3.02. To determine their relative values the S.D's are converted into CV's.

CV for group A is: \( \frac{6.6 \times 100}{10.18} = 64.8\% \)

CV for group B is: \( \frac{3.03 \times 100}{4.1} = 73.9\% \)

The two CV values suggest that both series have high variability with scores of group B showing a greater scatter compared to group A. The S.D for group A works out to be 64.8% of the mean whereas for group B it is as high as 73.9%. The Q1 and Q3 values for group A are 7.34 and 13.3%, respectively. For group B, they are 3.04 and 6.24, respectively. This substantiates the assumption that group A employees have greater satisfaction than employees of group B.

The discrepancy between scores of group A and B is larger in case of the Management Area compared with the overall satisfaction scores (table 2-IV) and job area scores (table 2-IV). The Q values for the two series do not differ very much from one another, they are 2.39 and 1.6) for series A and B respectively. This shows that there is a good cluster of scores around the median.

From table 12-IV we find that the two groups differ considerably with respect to the extent of satisfaction in
Management Area. The percentage of employees who are placed in the highly satisfied category, in group B, is as small as 5.1 whereas the corresponding percentage for group A is 54.07. However, the percentage of moderately satisfied employees is higher by 6.3 in case of group B.

The above figures indicate that in group B the highest percentage is that of 'dissatisfied' workers which is followed by 'moderately satisfied' and a very small percentage of 'highly satisfied' workers. In group A the highest percentage of employees fall under the 'highly satisfied' category followed by 'moderately satisfied' and 'dissatisfied'. Taking 'dissatisfied' as an extreme negative value on the continuum of satisfaction it appears that most of the cases cluster around it in group B and the number of cases gradually decreases as values in the positive direction are covered. Just the reverse trend stands for group A. The fact that there is higher percentage of 'moderately satisfied' employees in group B than in group A does not affect our earlier conclusion that high satisfaction prevails in group A which shows a greater percentage of 'highly satisfied' employees.

Applying the Kolmogorov-Smirnov two-sample (one-tailed) test to determine the significance of difference between the scores of group A and B, we find that the difference is in the predicted direction and is significant at .001 level (table 9-IV; item 3). The observed value of $X^2$ was
largest in this case. It was 134.642 whereas the critical value is only 13.82. This confirms hypothesis 1 (a) which states that "level of job satisfaction in the "Management Area" will be high under democratic organizational structure compared to the level of job satisfaction under autocratic organizational structure".

From table 16-IV we find that only one aspect of the management area is such with which a higher percentage of group B employees show greater satisfaction compared to employees of group A. This is 'general regard for the company'. Respective percentages for group A and B, are 37.5 and 46.7. Results contained in table 16-IV are revealing in more ways than one. Management is a crucial area since it is directly connected with the independent variable. Results of this area confirm to some extent that the two supervisory groups were correctly classified. Results obtained on the management area of the Inventory represent workers' assessment of supervision. More workers in group A consider that their supervisors are sympathetic, they consider the workers as hardworking and qualified, treatment is humane, and that they get help from supervisors. More than 4-times workers of group A consider that they have some 'participation' in the company activities as compared to group B. About 5-time more workers in group A than in group B show satisfaction with 'reward for good work'. Similarly, workers in group A show considerably more satisfaction with
such actions and policies as severity of punishment, proper praise, and promotion. Although a higher percentage of workers in group B endorse positively the aspect 'general regard for the company' yet they fail to show higher endorsement for aspects directly connected with supervision (see Table 16-IV, item 1 (a), (b), (c), and (d)). This proves that even though regard for the company may be high, still dissatisfaction with supervision may be rampant. This suggests that the workers do not identify supervision with company.

Taking the figures for Social Relations Area from Table 5-IV we find that the trend of scores is reversed. Whereas in the two areas already mentioned above group A scored higher than group B, in the present case group B scores higher than group A. It is found that mean and median for group A are 9.0 and 9.72 respectively whereas for group B these values are 10.5 and 10.74, indicating higher average satisfaction in group B. The C-D's for group A and B are 3.0 and 2.8, respectively. Converting the C-D's into CV's we find:

$$CV\ for\ group\ A = 3.0 \times \frac{100}{9.9} = 30.3\%$$
$$CV\ for\ group\ B = 2.8 \times \frac{100}{10.6} = 26.6\%$$

Relative to their respective means the C-D's of the two groups show that series B is more homogeneous than series A. The Q1 and Q3 values for the two series follow the trend of mean and median. Values of Q1 and Q3 for group A are 7.58
and $12.34$ respectively. For group B, the $Q_1$ and $Q_3$ values are $8.52$ and $12.52$, respectively. These values substantiate the conclusion that higher satisfaction prevails in group B in the Social Relations Area. The $Q$ values for the two series closely approximate one another; $2.35$ being the value for series A and $2.00$ for series B, indicating a similar cluster around the center of the two continua.

An important characteristic of the values contained in Table 5-IV is that although the scores of group B are consistently higher than scores for group A yet the two series of scores are very close to each other.

Considering the extent of satisfaction of the two groups in Social Relations Area (Table 13-IV) it is found that the relative figures for highly satisfied category for group A and B are $33.8\%$ and $40.0\%$, respectively. Group A, however, has a slightly higher percentage of moderately satisfied employees but the difference is marginal. Figures for group A and B are $36.2\%$ and $36.4\%$, respectively. There is a greater percentage of dissatisfied workers in group A as compared with group B. The relative figures are $30.0\%$ for group A and $24.5\%$ for group B. These percentages very clearly indicate that the workers in group B are more satisfied in the social relations area compared to workers in group A.

However, testing the significance of difference between the two series by the Kolmogorov-Smirnov two-sample (one-tailed) test it was found (Table 9-IV) that the difference between the two groups is highly insignificant. The
obtained value of the \( \chi^2 \) is 0.3803. This value is insignificant even at a 90 level of confidence. This lead us to reject hypothesis (d) which stated that "level of job satisfaction in the Social Relations area" will be high under democratic organizational structure compared to the level of job satisfaction under autocratic organizational structure.

Considering the extent of satisfaction with regard to the various aspects of the Social Relations Area it is found (table 17-IV) that there, eight aspects on which a higher percentage of employees from group B show higher satisfaction than employees of group A. A higher percentage of employees in group B consider their neighbours as decent and reliable, helpful, and worth living with. 71.6% from group B report of 'sustained friendships' compared to 56.0% from group A. 59.3% in group B report satisfaction with 'participation in social activities' compared to 41.3% in group A. In group B, 54.83% report no 'feelings of loneliness' as compared to 41.4% in group A. 78.7% in group B report no 'shyness in seeking guidance' compared to 69.3% in group A. On all the remaining aspects employees of group A report greater satisfaction. 68.4% employees of group A consider their 'friends and associates trustworthy' against 49.88 in group B. A consistently higher percentage of employees in group A report satisfaction with 'people in community' and all its sub-aspects, for example, 'good people gain respect', 'majority of people are good', 'majority of people do not take advantage of
others', and 'majority of people are not selfish'. 40.4% in group A, against 40.00% in group B, show satisfaction with 'caste barriers and other social customs'; this difference is too slight. 37.3% report absence of a 'feeling of inadequacy' (sociability) in group A against 23.2% in group B. Another aspect of sociability, 'shyness in initiating conversation', is one in which group A has shown better satisfaction (46.5%) as compared with 33.84% in group B.

Thus we can infer that results of the Social Relations area are neither in the expected direction, nor there is any significant difference between the scores of group A and B.

Studying the results for the two groups in the Personal Adjustment area (table 6-IV) we find that the trend is similar to that of the Social Relations area. Comparing the means and medians of group A and B it is found that group B scores higher than group A on both these measures of central tendency. On an average, thus, group B scores denote higher satisfaction in this area compared to group A. Taking the S-D's into account an inspection of the table reveals that there is little homogeneity of scores in group A. To establish the correct relationship, CV's are computed:

CV for group A = 4.09 x 100/8.9 = 46.9%
CV for group B = 2.9 x 100/10.1 = 28.7%
The CV values very clearly indicate that relative to its mean the S.D. of group B denotes greater normality of distribution compared to group A.

The Q1 and Q3 values follow the trends of mean and median. The Q1 and Q3 values for group A and B are 6.74 and 10.82 respectively for group A, and 8.32 and 12.42 for group B. This indicates that employees in group B score higher than employees of group A at these points. The Q values are similar for the two groups. The computed values of Q for group A and B are 2.04 and 2.06 respectively indicating a similar spread of scores in the middle 25%.

To test if any significant difference exists between the two series of scores the Kolmogorov-Smirnov two-sample (one-tailed) test was applied. Result of the test (table 9-IV; item 5) does not reveal any significant difference between the scores of the two groups. The obtained value of $X^2$ is 0.1831 which is insignificant even at .00 level. This leads us to reject hypothesis I (a) which states that "level of job satisfaction will be high in the "personal adjustment area" under democratic organizational structure compared to the level of job satisfaction under autocratic organizational structure".
Considering the extent of satisfaction in the two groups (Table 14-IV) it is found that group B has a higher percentage of satisfied workers in all the three categories. In group B, 35.4% of employees are rated as highly satisfied against 26.8% in group A. Similarly, 47.0% are classified as moderately satisfied in group B against 40.3% in group A. There is a distinctly higher percentage of dissatisfied workers in group A compared with group B. The percentages of dissatisfied workers in group A and B are 32.9 and 17.4, respectively.

In spite of the greater dissatisfaction in group A, there are at least five aspects of the personal adjustment area on which a higher percentage of group A employees show satisfaction compared to group B and for two other aspects the figures (Table 18-IV) are very close to each other though higher for group A. In group A, a higher percentage of workers report absence from worries about future mishaps. The respective figures for group A and B are 23.1% and 17.1%. Similarly, 39.3% in group A report of not having had a 'disturbed childhood' compared with 31.6% in group B. 25.1% in group A report satisfaction with 'health of family members' compared to 24.5% in group B. In group A, 54.8% report satisfaction with finances against only 23.2% in group B. Higher satisfaction is also reported with respect to the aspect of 'philosophy of life' by group A compared to group B. The
relative percentages being 31.7 for group A and 22.5 for group B. Besides, there is close agreement in the two groups about such aspects as 'feeling bad over a long duration if someone pinpoints a fault' and 'health is a handicap in progress'. The percentages for group A and B for the former aspect are 52.1 and 53.8%, respectively. For the latter, the figures are 43.0% for group A and 43.8% for group B. On the remaining aspects a higher percentage of employees from group B report satisfaction. In group B, 71.2% report satisfaction with 'tenacity and perseverance' against 61.8% in group A. Similarly, 29.7% report negatively to 'feeling of being misunderstood' in group A, compared to 44.5% in group B. 37.3% employees of group A report absence from being 'easily fatigued' against 47.09% in group B. 29% more in group B report satisfaction with 'home and living conditions' than in group A. The respective figures for group A and B are 66.8% and 67.8%. 50.1% of employees in group A and 73.62% of employees in group B report satisfaction regarding 'relations with family members'.

The above results suggest that employees in group A show higher satisfaction than employees in group B with regard to job and management areas. The overall satisfaction of group A is also better compared to group B. Regarding social relations and personal adjustment areas it is found that there
is a trend for scores of group B to be somewhat better than those of group A but the difference between the two groups is statistically insignificant.

When job and management areas are cumulatively scored, we find (Table 7-IV) that the results are similar to those obtained by independent or individual scoring of these areas. The mean and median values of group A are higher than corresponding values of group B. The mean for group A and B is 20.7 and 12.74, respectively. Median for group A and B is 21.23 and 12.26, respectively. These figures indicate that on an average workers in group A score higher than workers of group B when job and management areas are scored cumulatively. The S.D. is 6.8 for group A and 5.4 for group B. Determining the true position of the S.D.'s relative to their means the following CV values were computed:

\[
\text{CV for group A} = \frac{6.8 \times 100}{20.7} = 32.82 \\
\text{CV for group B} = \frac{5.4 \times 100}{12.74} = 42.33
\]

Though the absolute value of S.D. for group A is larger but converting it into CV, we find that S.D. for group B is relatively larger. This implies greater variability in group B scores.

The Q1 value for group A is 16.42, for group B it is about half of group A, i.e., 8.66. The Q3 value is
25.22 for group A and 16.26 for group B. The Q value of
    group A is larger than the Q3 value of group B. This very
clearly shows that when the two areas are cumulatively scored
employees in group A show very high satisfaction compared to
employees in group B.

The Q values for group A and B are 4.4 and 3.8,
respectively. This indicates that there is a somewhat 'dense'
sscatter around the middle of the distribution of series B
    compared to series A.

Testing the significance of difference between the
two groups with respect to combined scoring of job and manage-
ment areas it is found (table 9-IV; item 6) that the Kolmogorov-
    Smirnov two-sample (one-tailed) test reveals highly significant
differences in the predicted direction. The obtained value of
    \( \chi^2 \) is 109.972 which is significant at .001 level. This confirms
hypothesis I (f) which states that "level of job satisfaction
will be high in the Job and Management (combined) areas under
democratic organizational structure compared to the level of
job satisfaction under autocratic organizational structure".

The combined scores of social relations and personal
    adjustment areas reveal the same trend as obtained by indepen-
dent scoring of these areas. The mean and median values for
group A are smaller than corresponding values for group B.
The mean satisfaction score for group A is 18.9 against 21.018 for group B. The median scores for the two groups, A and B, are 18.03 and 21.306, respectively. This goes to prove that on an average better (higher) satisfaction prevails in group B than in group A with respect to social relations and personal adjustment areas. The low mean value of series A is accompanied by a larger S.D. Series B has a S.D. of 4.8 units against the larger S.D. of series A which is 7.3. Relative to their respective means the S. D's are - in terms of CV's - as follows:

CV for group A = 7.3 \times 100/18.9 = 38.6\%
CV for group B = 4.8 \times 100/21.018 = 22.8\%

Values given above clearly show that the S.D. for series A is very large in relation to its mean compared with S.D. for series B.

The Q1 and Q3 values are higher for group B compared to group A. Q1 values for group A and B are 14.94 and 18.27, respectively. Q3 values are 22.44 and 24.15 for group A and B, respectively. The Q for group A is 3.75 as against 2.94 for group B. This indicates that the cluster in the middle 25% of the continua is better for group B than for group A.

Applying the Kolmogorov-Smirnov two-sample (one-tailed)
test to predict the significance of difference we find the
differences (table 3-IV, item 7) highly insignificant. The
obtained value of \( X^2 \) is 0.0973 which is insignificant even
at .05 level. This leads us to reject hypothesis I (c)
which stated that "level of job satisfaction will be high in
the Social Relations and Personal Adjustment (combined) areas
under democratic organizational structure compared to the
level of job satisfaction under autocratic organizational
structure".

After having discussed job satisfaction we shall
now discuss results pertaining to employees morale. Table
12-IV contains the overall morale scores. For morale scores
also, as for satisfaction scores, the mean, median, S.D., Q1,
Q3, and Q values have been computed. The mean and median
values of overall morale for group A are higher than corres-
ponding values for group B. Mean for group A is 3.06 as
against 2.45 for group B; median for group A is 3.025 against
group B's 2.445. This clearly indicates that the overall
morale of employees in group A is higher than that of
employees in group B. The S.D.'s for group A and B are 1.69
and 1.24, respectively. To determine their relative positions
with respect to their means they are converted into CV.

\[
\text{CV for group A} = 1.69 \times \frac{100}{3.06} = 55.43 \\
\text{CV for group B} = 1.24 \times \frac{100}{2.45} = 50.65
\]
values. The values of mean for group A and B are 3.0 and 2.34, respectively. Medians are 3.165 and 2.346 for group A and B, respectively. These figures clearly show that on an average group A workers have higher morale than group B workers as revealed on this sub-scale. Taking into account the S.D's for the two series, it is found that group A has a smaller S.D, 0.94, compared to group B where the S.D is 1.7. Converting these S.D values into CV, we find:

- CV for group A = 0.94 x 100/3.0 = 31.3%
- CV for group B = 1.7 x 100/2.34 = 72.6%

The above values indicate that relative to the mean S.D for series B is extremely large. The Q1 and Q3 values for group A are 2.475 and 3.72, and for group B 1.696 and 2.91, respectively. In case of group A we find that the Q1 and Q3 values tend to be higher than corresponding values for group B. This indicates high scores for both, the low as well as high scores of group A compared to group B. The Q values for the two series are 0.622 for A, and 0.66 for B. These are close to each other and indicate a more or less similar spread of scores around the median.

Using the Kolmogorov-Smirnov two-sample (one-tailed) test a $X^2$ value of 71.614 was obtained (table 24-IV: item 1). This value is significant at .001 level. This confirms
hypothesis II (b) which stated that "morale scores of employees under democratic organizational structure will be high compared to morale scores of employees under autocratic organizational structure on sub-scale "Fairness of Policies and Behaviour"."

The second sub-scale is "adequacy of Immediate Leadership". Table 21-IV contains the scores obtained by group A and B on this sub-scale. Here also, as in the previous two cases, the scores of group A tend to be somewhat higher than scores of group B. The respective means for group A and B are 3.1 and 2.6. Medians for group A and B are 3.13 and 2.71, respectively. These measures of central tendency very clearly indicate that on an average group A workers have higher morale than group B workers with respect to this sub-scale. Taking the S. D's into account it is found that group A has an appreciably smaller S. D than group B. The S. D values are .69 and 1.3, respectively, for groups A and B. To determine the positions of S. D's relative to their means, CV values are computed:

CV for group A = .69 x 100/3.1 = 22.22%
CV for group B = 1.3 x 100/2.6 = 50.0%

The CV for group A is less than half of CV for group B. This shows that relative to its mean, the CV for
Group A is much smaller - only $22.25$ - than CV for group B which is $60\%$ of the mean. This indicates great homogeneity in scores of group A compared to a wide scatter of scores in group B. This reveals that the mean of group A is highly reliable as an index of central tendency. Taking the $Q_1$ and $Q_3$ values into account, we find that both these values are larger for group A. The $Q_1$ and $Q_3$ values of group A are $2.66$ and $3.90$, respectively. For group B these values are $1.88$ and $3.12$, respectively. Group A employees score higher at both, $Q_1$ and $Q_3$, points on the continuum compared to group B employees. Taking the $Q$ values into account we find that group A has a $Q$ of $0.62$ as against $0.57$ of group B. This indicates that average variability in the middle $25\%$ of the continua is slightly greater for group A than for group B.

The above findings indicate that group A employees have higher morale as revealed on the sub-scale 'adequacy of Immediate Leadership' than group B employees. Kolmogorov-Smirnov two-sample (one-tailed) test was applied to test the significance of difference between the two series of scores. The obtained value of $X^2$ is $27.931$ (table 24-IV; item 2) which indicates that the difference is significant at $0.001$ level. This confirms hypothesis II (c) which states that morale scores of employees under democratic organizational structure will be high compared to morale scores of employees.
under autocratic organizational structure on sub-scale "Adequacy of Immediate Leadership".

Results of the third sub-scale, "Sense of Participation" are recorded in table 22-IV. An inspection of the table reveals that group A employees have scored better than their counterparts in group B. The mean scores for group A and B are 2.7 and 2.05, respectively. Median is 2.71 for group A and 1.99 for group B. These figures very clearly indicate that on an average group A has higher morale than group B. But the difference in both the cases is not very large. The two means differ by 0.65 and the two medians by 0.72. S.D. for group A is slightly larger than S.D. for group B, the respective values being 0.67 for group A and 0.6 for group B. Converting the S. D.'s into CV's to determine their values relative to their corresponding means we find -

\[
\text{CV for group A} = \frac{0.67 \times 100}{2.7} = 24.8\% \\
\text{CV for group B} = \frac{.6 \times 100}{2.05} = 29.2\%
\]

The above figures show that S.D. for group B is slightly larger than S.D. for group A in relation to its respective mean. While the S.D. for group B is 29.2% of its mean the S.D. for group A is 24.8% of its mean.

The Q1 and Q3 values are larger for group A than
for group B. For group A the Q₁ and Q₃ values are 2.19 and 3.27, respectively, whereas the corresponding values for group B are 1.64 and 2.40. This clearly shows higher scores for group A at these two points compared to group B. Differences at these two points are quite large. The Q₃ however, is smaller for group B than for group A. The respective values of Q for group A and B are .54 and .33. This indicates a more homogeneous scatter in the middle 25% of the continuum of group B.

The Kolmogorov-Smirnov two-sample (one-tailed) test was applied to determine the significance of difference between the scores of the two groups. The test reveals (table 24-IV; item 3) highly significant difference in the predicted direction. The obtained value of $X^2$ is 77.014 which is significant at .001 level. This confirms hypothesis II (d) which stated that "morale scores of employees under democratic organizational structure will be high compared to morale scores of employees under autocratic organizational structure on sub-scale "Sense of Participation"."

The fourth sub-scale of employees' morale is "Sense of Worth of the Organization: Regard and Identification". Scores obtained by group A and B on this sub-scale are contained in the table 23-IV. An inspection of the table
reveals that group A tends to have higher mean, median, CI and Q3 values compared to corresponding values for group B. The S.D. and Q values are also higher for group A. The mean values for group A and B are 3.35 and 3.1 respectively. The medians are 3.32 and 3.92 for group A and B, respectively. In both the series the mean and medians lie very close to each other. The difference between mean and median of group A is only .03, and for group B it is .12. Higher mean and median values for group A indicate that on an average the group A employees have higher morale than group B employees on the sub-scale in question.

The S.D. for series A is larger than for series B. The values being .87 and .81 for series A and B, respectively. Converting the S.D. values into CV we find that -

\[ CV \text{ for group } A = \frac{.87 \times 100}{3.35} = 26.35 \]
\[ CV \text{ for group } B = \frac{.81 \times 100}{3.1} = 26.15 \]

The two CV values indicate that the two S. D's are very close to one another, with S.D. for series B somewhat larger in relation to its mean. Both the values are small, about 26% of their respective means. This indicates a smaller dispersion of scores in both the series.

The CI and Q3 values do not differ very much
although in case of group A both these values are larger. Q1 and Q3 values for group A are 2.77 and 4.19 respectively; corresponding values for group B are 2.41 and 3.48. The higher scores at Q1 and Q3 for group A indicate that even low scores in group A on this sub-scale have better (higher) morale than employees of group B. Similarly, high scorers score higher in group A than in group B. The respective Q values for group A and B are .71 and .53. This would mean a somewhat 'wider' scatter around the median in case of group A than in case of group B.

Testing the significance of difference by the Kolmogorov-Smirnov two-sample (one-tailed) test it was found that the two series of scores differ significantly. The obtained value of $X^2$ was 4.7707. This value is significant at .10 level of confidence (table 9A-IV; item 4). This confirms hypothesis II (e) which stated that "morale scores of employees under democratic organizational structure will be high compared to morale scores of employees under autocratic organizational structure on sub-scale 'Sense of Worth of the Organization; Respect and Identification'."

The above findings reveal higher morale for group A employees as compared to group B employees. This trend prevails in all cases. The overall morale and the four sub-scales all indicate higher morale scores for group A employees.
then for group A. Moreover, the differences between the scores of group A and B are significant in four cases out of five at .001 level and in one case at .10 level. This confirms that highly significant differences exist in the predicted direction.

Results obtained so far indicate that group A tends to have higher satisfaction with respect to \textquoteleft job\textquoteright{} and \textquoteleft management\textquoteright{} areas whereas group B scores somewhat better on \textquoteleft social relations\textquoteright{} and \textquoteleft personal adjustment\textquoteright{} areas. In case of employees\textquoteleft{} morale, it is found that group A employees score better on the complete scale and on all the four sub-scales individually. We shall now discuss the results of the present investigation in the light of previous researches. Some of the important aspects of job satisfaction will be considered first.

\textbf{Salary and Wages:}

One of the important sources of the desire to work is the financial return accompanying work. Importance of wages and salary has been differently assessed by different investigators. Williams (1925) concluded that one of the fundamental factor in an individual\textquoteleft{}s attitude toward his work is the pay cheque. In a comprehensive survey conducted by Herzberg and associates (1957) it was found that wages are rated (by workers) as less important than security, opportunity
for advancement, company and management. Wages, in the same survey, were rated as more important than job content, supervision, the social aspects of the job, communication, working conditions, and benefits. In a later study by Herzberg and others (1959; p. 116) it is reported by the authors that "Salary and wages are very frequently at the top of the list of factors describing answers to the question, "What don't you like about your job?" in morale surveys. They are at the middle of the list of answers to the questions, "What do you want from your job?". They conclude that "as an affecter of job attitudes salary has more potency as a job dissatisfier than as a job satisfier" (p. 82)."

Correlational evidence is available to show that income level is positively associated with job satisfaction. Follow up studies of college graduates by Thompson (1939), Miller (1941), and Barnett and associates (1952) provide support for the presence of a positive relationship. Investigations by Marriott and Denerley (1955) in British concerns and by Centers and Cantril (1946) in America lend further support to this relationship. In a recent investigation Smith and Kendall (1963) report a correlation of .78 between the mean annual earnings of men in 21 plants and their mean job satisfaction.

Fetahen (1961) considers the problem of satisfaction
with wages in terms of 'social comparison theory'. He assumes that a worker compares his own wages with those of others and tends to evaluate similarities and differences in terms of his relative standing on 'dimensions believed to be the basis of pay (e.g., skill, seniority and education)'. He explains wage satisfaction in terms of the cognitive dissonance theory.

Patchen hypothesizes that satisfaction with a specific wage comparison is a function of the 'objective dissonance of the comparison'. For him a comparison is objectively dissonant 'when the ratio of the comparer's position on dimensions relevant to pay to another's position on these dimensions is culturally considered congruent with, or appropriate to, the ratio of their earnings'. If a worker compares his earnings with another individual who is similar to himself (the comparer) in his standing on dimensions related to pay but earns more, such a comparison would be dissonant and will lead to a feeling of dissatisfaction on the part of the comparer. If comparison is made with an individual who is superior on dimensions related to pay and also earns more or an individual whose earnings are the same and who has the same standing on dimensions related to pay such a comparison would be objectively consonant and will lead to a feeling of satisfaction.

Kesh and Crutchfield (1948) have opined that 'absolute wages' per se do not create satisfaction or dissatisfaction. In their opinion, wages to be satisfying should
be 'psychologically adequate'. According to these authors, wages are considered satisfactory or otherwise in relation to the needs of the earner. Men's needs are constantly growing and proliferating, hence, each wage rise, by permitting the worker access to new interests and by raising his socio-economic level, induces new needs. In summary, they mention: "A wage rate is psychologically inadequate, no matter how large in absolute amount, if it results in a wide discrepancy between the worker's level of aspiration and his level of achievement". (P. 542).

From the above it can very easily be inferred that wages are an important source of satisfaction and dissatisfaction. However, they are not the only thing which one looks for in a job or which can cause satisfaction and dissatisfaction. Professor Ganguli (1964) commenting on the sources of satisfaction of Indian workers has observed:

"At present and in the foreseeable future for Indian workers in general, income (or wages) and security of service are going to be the two most important incentives" (p. 91).

Results of the present study also indicate that a relatively small percentage of workers are satisfied with the financial returns. Only 35.7% in group A, and 32.5% in group B
report satisfaction with financial returns. This shows that wages or financial returns are more a source of dissatisfaction than of satisfaction. Krech and Crutchfields' earlier observation about each wage-increase leading to a need-increase cannot be taken as true in case of the Indian worker. Here, needs increase irrespective of increase in wages. The price-rise in the previous decade has far outpaced any additional wages granted to workers. Under these circumstances only a very small percentage of workers can be expected to be satisfied with their wages.

We shall consider now another important aspect of worker satisfaction, namely, fellow workers.

Fellow Workers:

In the foregoing section we have seen that men do not work for money alone. Wages were not always rated as the most desired aspect of one's job. One of the very important sources of satisfaction and dissatisfaction is the work group to which the worker belongs. The artisan of old was self-dependent as far as production of goods was concerned. Modern mass-production techniques require handling of complicated gadgets and machines. Several individuals work to-day as a team to produce goods. These individuals form groups both formal as well as informal. Their presence at a particular
machine or a group of machines is necessary for production. Skill, it seems, has replaced aptitude.

The people in an organization, observes Dubin (1951; p. 17) "are not just a bunch of individuals huddled together in a mass. They form groups that are social unities". Historically the emphasis upon social organization at the work group level was anticipated in the social philosophy of Durkheim (1893).

Results of investigations conducted by Mayo exploded the myth that 'mankind is an unorganized rabble', (Arensberg, 1951; Bendix and Fisher, 1950; Mayo, 1924; Mayo, 1946). On the basis of his investigations Mayo (1945) concludes that workers are not strictly 'economic men'. According to Mayo (1945; p. 111), "man's desire to be continuously associated in work with his fellows is a strong, if not the strongest, human characteristic". The significance of interactions between members of a work group for worker satisfaction and productivity was further highlighted by works of Whitehead (1936, 1938a, 1938b), and Roethlisberger and Dickson (1939), and Roethlisberger (1939).

Interactions between members of a work group can lead to satisfaction as well as dissatisfaction. Homans (1950; p. 112) has hypothesized that, "If the frequency of interaction between two or more persons increases, the degree
of their liking for one another will increase, and vice versa. Cartwright and Zander (1960; p. 72) suggest that the valence of the group for an individual is a function of "the nature and strength of his needs and upon the perceived suitability of the group for satisfying these needs." Bass (1968) also puts forth a similar hypothesis. He observes that a group is "more attractive, the greater the rewards which may be earned by membership in the group and the greater the anticipation or expectancy of earning them" (p. 60).

The above hypotheses developed by Homans, Cartwright and Zander, and Bass while explaining the determinants of attraction to the group have all stressed the 'valence of group mediated outcomes'. Vroom (1964; p. 120) hypothesizes that "If the work group is believed by an individual to be instrumental to the attainment of positively valent outcomes, it will acquire positive valence for him; if, on the other hand, it is perceived to be instrumental to negatively valent outcomes, it will acquire negative valence for him."

Survey findings clearly establish the importance of congenial work associates for high morale and job satisfaction. Jurgensen (1947) reported that job applicants were as concerned about their future associates as about their pay. Applicants for unskilled jobs rated co-workers somewhat higher than other groups. Co-workers were rated higher in importance than supervision, hours of work, working conditions, and benefits.
In an extensive study conducted by Walker and Guest (1952) it was found that congenial work associates and opportunities for social interaction were very important for job satisfaction. These authors found that three types of social relationships prevailed amongst the workers. These were determined by 'the technology of the line'. There were: (i) isolated workers who performed their duties independent of other workers; (ii) workers who performed their duties independent of other workers but in close proximity of one another; and (iii) workers engaged in tasks which required a close teamwork. Discussing the results of their investigation, the authors comment that considering the amount of talking the workers did, the isolates were the most vehemently negative. The largest group, those working side by side but independently, were more likely to refer to their social relations in the negative terms of how they would feel were they not able to talk and of the effects of interaction in countering other job tensions. In marked contrast, those who were members of true teams spoke of their group interaction in positive and cheerful terms.

The WJC results, (Evans and Laseau, 1960; Pp. 46-48) also indicate that co-workers rank next only to pay, interesting and important job, and the company. Importance of this factor can also be judged by the fact that 41.2% workers from all divisions mentioned this theme, this was next only to
supervision. In the final regrouping, 'the co-operation and team spirit of my fellow workers' theme was mentioned in 46.9% of entries. This has a rank-order standing of 4.

In a study by Morse and Weiss (1955) it was found that from 71% to 91% of respondents belonging to various occupations reported that they would continue to work even when economically there was no need to do so. A national sample (U.S.A.) of employed men was asked the question: "If by some chance you inherited enough money to live comfortably without working, do you think you would work any way or not?" 80% of the 401 respondents reported that they would keep working. Of these 31% gave their reason for continuing to work as the relationships with the people with whom they worked. They did not like to miss their friends.

The survey of literature on job attitudes conducted by Herzberg and associates (1957) also established the importance of 'social aspects of the job' for employees' satisfaction. According to the authors of this survey 'social aspects of the job' were the most frequently mentioned sources of satisfaction. The term social aspects of the job was used here to refer to all the 'on the job' contacts made by the worker with other workers specially those who were at the same level or were on adjacent levels within the organization.

In an investigation conducted on Indian workers, Sinha (1958) found that for satisfied workers "good fellow-
workers" are rated as having a rank of 3.5 amongst 'factor in liking job'. The dissatisfied workers in their enumeration of 'factors in disliking job' do not mention "good fellow-workers". For satisfied employees "good fellow-workers" and "work according to health" tie ranks.

Ganguli's (1964: p. 89) investigation on foundry men at a government owned engineering factory about the 'relative importance of different incentive items' indicates that "good personal relation with colleagues" is ranked 9th by the respondents. Ganguli used the direct method of making the respondents indicate the relative importance of several 'incentive items' when these items are presented in a list.

Results of the present investigation also indicate that fellow-workers are considered an important source of satisfaction. Figures given in table 16-IV (items 3(a), 3(b)) clearly show that fellow-workers are reported by a large proportion of workers as a source of job satisfaction. A larger percentage of workers in group B report that fellow-workers are "pleasant to work with" (54.4%) and are "co-operative and helpful" (72.9%). This is against group A's report of 39.8% and 71.1% on the two aspects, respectively.

The above findings reveal that although workers in group B tend to show considerably lower satisfaction on the 'job' area compared to workers in group A still their
satisfaction with fellow-workers is somewhat higher. This may be explained by Maier’s (1956; p. 95) comment based on an earlier investigation (Maier, 1942) that “it is also possible for a frustrated group of people to become organized”. Dubin has also commented that dissatisfied workers can have better mutual regards since it is apparent that they form a clique-like group of workers. According to Dubin (1961; p. 47), this clique-like group is formed “in order effectively to oppose demands from higher authority and work counter to the purposes set by management”. Kahn and Kahn (1953) also report parallel results. They found somewhat better inter-personal relationship between workers of the low-productivity and low-morale groups. Reporting the results they observe: “Apparently the informal organization in the low groups compensated in some respects for the abdication or misdirected leadership of the foreman” (p. 615).

We shall now consider the “nature of work” aspect and examine the results.

Nature of Work:

Under this aspect five sub-aspects are included, these are, dull work, dangerous work, strenuous work, interesting work, and hours of work.

Some people find their work interesting, others do not. Smith (1955; p. 120) raises the question: “Is the job interesting, or is the worker interested in the job?” Sociologists
and Social Psychologists have repeatedly laid the onus of lessened intrinsic satisfaction of job on automation and assembly line production techniques. Acknowledging that there have been considerable increases in efficiency stemming from specialization they also report a decrease in job satisfaction. Merton (1947), Kresch and Crutchfield (1948), and Katz (1954) have very emphatically talked about 'deprivations' accompanying repetitive tasks due to automation and specialization.

Work interest, also known as the intrinsic satisfaction of the job is considered a vital aspect of overall job satisfaction. A survey conducted in 1947 indicated it to be "one of the five most important factors" (Fortune Magazine, 1947). In another survey (National Industrial Conference Board, 1947) the same year nearly 6000 factory workers were asked to select the five most important factors which directly influenced their attitude toward their job. 'Type of work performed' was rated next only to job security, and pay.

Monotony generated by conveyor-spacing and specialization has been well explored in a study conducted by Walker and Guest (1952). These investigators studied 180 assembly-plant workers by classifying their jobs in terms of the number of separate operations they performed. Job interest was then determined in relation to the number of separate operations performed.
Their findings are presented below.

<table>
<thead>
<tr>
<th>Operations Performed</th>
<th>Mean</th>
<th>Very or Fairly Interesting</th>
<th>Not very or Not at all Interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>2-4</td>
<td>64</td>
<td>43%</td>
<td>57%</td>
</tr>
<tr>
<td>5 or more</td>
<td>59</td>
<td>63%</td>
<td>37%</td>
</tr>
</tbody>
</table>

P < .001

From the above it is found that job interest increases with the increase in the number of operations performed.

In an investigation Kennedy and O'Neill (1958) failed to observe any difference between job attitudes of two groups of workers engaged in repetitive and non-repetitive tasks. They compared the job attitudes of (i) assembly operators, and (ii) utility men in an automobile plant. An assembly operator was required to perform a single task or a group of tasks as the 'line' passed his work place. Utility men had varied duties. They were required to take over the duties of an assembly man on scheduled or emergency breaks; they were required to assist the assembly men when they failed to cope with the line, and they were required to demonstrate the jobs to new assembly men.
It is apparent that the utility men performed various kinds of activities. No differences were observed between the attitudes of the two groups. Vroom and Maier (1961) have observed that these negative results may be due to the fact that the size of increment in satisfaction following increases in the number of duties is dependent on the relatedness of the added duties. They observe that: "Greater variety of tasks may not increase satisfaction unless the tasks form a unified, integrated, and meaningful whole. Enlarging the job by adding diverse unrelated activities or rotating the worker from one job to another unrelated job may not have the intended positive consequences on either satisfaction or motivation" (p. 424).

Viteles (1932) years back suggested that monotony susceptibility is a personality characteristic. He observed that monotony was "more apt to occur in uniform than in varied tasks, in simple than in complex tasks, in the operation of a machine than in hand work, but, in the final analysis, it is to the susceptibility of the individual, and not to the task, that the responsibility for the feeling of boredom must in large part be ascribed" (p. 547).

As an antidote to monotony two new concepts in job assignment, namely, job enlargement and job rotation, have been introduced. Job enlargement and job rotation are two important aspects of modern industrial programs to decrease the
repetitiveness of work. Job enlargement refers to increasing the number of operations constituting a job. This allows the worker to engage himself in a larger number of operations and it also increases the frequency with which he can change from one operation to another.

In job rotation the content of the work or job remains unaltered but the worker is allowed to 'move periodically from one work role to another'.

Studies conducted by Walker (1950; 1954), Guest (1957) and Elliott (1953) have all reported an improvement in worker attitudes by introduction of job enlargement and rotation.

Herzberg and associates (1959) report that in sequences of events that accompanied favorable job attitudes, "work itself" is mentioned as a factor in 26% of the reports. These investigators observe that: "Frequently cited desiderata were creative or challenging work, varied work, and an opportunity to do a job completely from beginning to end (p. 61)". This theme was next only to "achievement", and "recognition" when considered in terms of percentage of mentions.

A survey conducted by the Opinion Research Corporation (1947) clearly indicated that "interesting job" is the most valued aspect of a worker's job. In answer to "what do men value in their jobs?" eleven job aspects were reported with
"interesting work" followed by "job security", "interest company takes", "chances for advancement", "working conditions", "handling workers' complaints", "pay", "immediate boss", "people you work with", "vacation policy", and "working hours".

Morse (1963) studied job satisfaction of white-collar workers. Her results (p. 62) indicate that as a characteristic liked in one's own job, 'variety' is mentioned by 14% of employees having 'low' degree of intrinsic job satisfaction; 46% of employees having 'medium' degree of intrinsic job satisfaction, and 41% of employees having a 'high' degree of intrinsic job satisfaction. 'Lack of Variety' as a characteristic disliked in one's own job was reported by 63% of employees having low intrinsic job satisfaction; 29% of employees with 'medium' degree of intrinsic job satisfaction, and only 8% of employees with a 'high' degree of intrinsic job satisfaction.

Results of the present study (Table 15-IV; item 1) clearly indicate that workers who have high overall job satisfaction (Group A) report their jobs as interesting more often than workers who have comparatively low satisfaction (Group B). 64.9% of workers in group A consider their work 'interesting' as against 42.77% in group B. Similarly, 34.5% of workers in group A do not consider their work strenuous whereas only 16.4% in group B hold this attitude. Probably these two factors are directly related. If a job is considered strenuous it is
considered uninteresting too. However, absence of interest may also account for a particular job being considered strenuous. A feeling of boredom will necessarily accompany the absence of interest on a job.

Sinha's (1958) investigation on jute workers also revealed that in case of satisfied workers 'Interesting Work' is ranked second only to 'Boss'. However, in case of dissatisfied workers this aspect is ranked 7th.

Ganguli (1964; p. 89) collating the data from several sources found that "comfortable working conditions", and "suitable type of work" are rated 8th or 7th in order of importance for rank and file workers.

Investigations about "dangerous" nature of work and its impact on satisfaction are few. Stagner (1956; pp. 177-178) has emphasized the need to study this aspect. He observes that: "A job that involves considerable physical danger may not be satisfying even though it pays high wages, has lots of fringe benefits. . . . . . The coal miner may answer favorably 19 out of 20 questions about satisfaction, yet his negative answer based on health and safety hazards may outweigh all the others".

A study conducted by Kelly and Harrell (1949) on coal miners revealed that their overall satisfaction was very low. Yet, 70% agreed that management was fair and 65% agreed that
wages were high enough. Further probings revealed that there was a unanimous hostility to mining as an occupation and the mainspring of this feeling was the unhealthy and unsafe conditions under which they worked. This study establishes the fact that unhealthy and dangerous work conditions contribute heavily to job dissatisfaction. In 22.5% of WC entries (Evans and Lees, 1950: Pp. 46-48), 'safety' was mentioned as an important aspect for liking one's job. However, when this factor was regrouped with 'available medical facilities' the percentage of mentions was 32.7.

Our results indicate (Table 16-IV, item 1) that a higher percentage of employees in group A show dissatisfaction with the 'dull and dangerous' aspect of their jobs. The jobs in both the departments were not dangerous although noise and humidity were present. Humidity was less in the work environment of group B and this may account for the high percentage (60.9%) of employees in this group showing satisfaction with the factor in question. Another fact may account for this difference. The social setting of the job for group A was such that chances of conversation between workers on adjacent looms were almost nonexistent, there was relatively greater freedom of movement and speech in case of group B workers. Thus, group A employees considered their jobs dull and dangerous not due to the machine factor but due to the social setting of the work.
Richards and Dobryn (1957) have also observed that when environmental changes were introduced which greatly restricted the opportunities for social interaction in an insurance company the morale of workers was considerably lowered.

The hypothesis that larger groups have lower morale compared to smaller groups is not established by our results. Group A was the larger group ($N = 1125$) compared to group B ($N = 660$). It was found that the larger group, in our case, had both higher morale and higher job satisfaction. This is contrary to findings reported by Worthy (1950), Hemphill (1956), and Seashore (1954). This may be due to the fact that relative sizes beyond a certain amount of largeness do not matter much. Probably a group of 15 compared with another of 100 may show differences in cohesiveness and morale; whereas the same relationship may not stand as relative sizes increase.

Hours of work is another important aspect of job satisfaction. This is one aspect of an individual's job which has a direct bearing on his social life. The amount of time available to a worker for living in his community and with his children is directly related to the time he spends on his job.

There are different patterns of work hours. Usually, the worker is busy about 8 hours a day, six days a week. Assembly line production methods and technical advances have given rise to the "shift" system. Groups of workers are required to
adopt different work schedules in the 24-hour day. Usually there are three work schedules, each having an 8-hour duty span. In certain cases the shifts are rotated so that a group of workers doing night duties takes over from the group doing day duties, and vice versa. Vroom (1964) has observed that modern industry is depending mostly on the shift system. He observes that "The increased capital investment associated with automation and consequent pressures to greater use of equipment is resulting in the employment of greater numbers of persons on what is called "shift work" (p. 156). According to the same author, "Evidence concerning the effects of shift work on worker satisfaction is incomplete, but there are indications that these effects depend on the nature of the work schedule as well as on the personality of the individual worker" (p. 156).

Blakelock (1959) conducted a comparative study of shift and non-shift workers in a Canadian oil refinery. It was found that only 13% of the shift-workers expressed dissatisfaction with shift work. The overall job satisfaction of shift-workers was also significantly higher than that of non-shift workers.

Henn and Hoffmen (1960) studied attitudes of rotating shift workers and found results negating those of Blakelock. They studied workers in two power plants working on rotating shift basis. Results indicated a general dislike for rotating shift work. There was a very wide discrepancy, however, between
the extent of dislike between the two plants. In one plant 73% of the workers indicated their dislike for shift work whereas in the other only 35% indicated dislike. The plants differed in certain features. The plant having greater dissatisfaction with shift work had monthly rotation, and workers and supervisors rotated together, workers had weekends off every fourth week, and the shift started at 12 midnight, 8:00 A.M., and 4:00 P.M. In the plant with lesser dissatisfaction, shift rotation was on weekly basis, workers and supervisors rotated individually, weekends were off once every 25 weeks, and the shifts started at 11:00 A.M., 7:00 A.M., and 3:00 P.M.

As referred by Vroom (1964; pp. 156-158) in one of his unpublished papers he has attempted to provide a model for predicting 'the affective consequences of work schedule'. His major hypothesis is as follows:

"The greater the positive valence of an activity for a person, the greater the negative effects of discordance of his work schedule with respect to that activity on his satisfaction with the work schedule. If an activity has strong positive valence for a person, decreases in the discordance of his work schedule with respect to that activity should result in increases in the valence of his work role and increases in discordance should result in decreases in valence. On the other hand, if
a person is indifferent to an activity, changes in the discordance of his work schedule with respect to that activity should have no effect on the valence of his work role" (p. 168).

As adjuncts to his theoretical model, Vroom developed two important concepts. The first is the time pattern for an activity. This can be "obtained by plotting the probability that an activity can be performed at various times of day. Some activities are highly flexible, i.e., they can be carried out at any time of day or night .... Other activities are inflexible and may be performed only at highly specific times" (p. 156 - 157). The concept of "flexibility of activities" was originally given by McKeelock (1960). In case of a highly flexible activity the probability is high that it can be performed at any hour of the day; a moderately flexible activity can be performed within a given range of time; and a highly inflexible activity can be performed only at selected hours.

Another important concept developed by Vroom is that of the discordance of a work schedule for a given activity. This stands for "the amount of overlap between the work schedule and the time pattern for that activity" (p. 157). He has suggested that the factor of discordance can be represented schematically by superimposing the work schedule on the time pattern. The utility of Vroom's model lies in the fact that
it takes into account extensive individual differences in reactions to the same work schedule. He very rightly observes that: "Differences in the valence of activities or in the time patterns for activities on the part of workers in different plants or communities could lead to substantial differences in reactions to the same work schedule" (P. 158). A worker who enjoys participation in community activities or playing with his children would not prefer the evening shift. Similarly, an individual with outdoor interests would not prefer day shifts and may even have a preference for the evening shift.

Subjects of the present study were textile mill workers who were all working on rotating shift basis. Results obtained and recorded in table 15-IV, item 2, indicate that the two groups hold almost similar attitudes about hours of work. 47.5% of workers in group A and 49.03% of workers in group B have reported satisfaction with their hours of work. This indicates a close similarity of attitudes. This is in contrast to Mann and Hoffman's (1960) findings where the discrepancy between the extent of satisfaction with this aspect was as large as 33%. The agreement between the extent of satisfaction manifested by groups A and B can be attributed to the fact that policies and practices of shift-rotation in the two departments were identical. Ganguli (1964; P. 89) citing data from Bose has reported that "regular working hours" are rated 10th (lowest) in importance by 400 miscellaneous industrial workers. This goes contrary to Vrooms contention about the relative importance of this
aspect. However, it seems that it is almost a neglected aspect as far as research explorations in India are concerned.

The next aspect to be considered is participation.

**Participation:**

Harrell (1964; P. 249) believes that "Participation means being active in pursuit of a goal which involves the ego". Participation refers to a feeling of ego involvement in a task, activity or organization. "A person who feels he is a member of a group," writes Maier (1955; P. 409), "must be experiencing some form of participation". Harrell (1964; Pp. 60-60) has very aptly pointed out that participation incorporates two of the very strong human motives, namely, the social motives of self-respect and social approval. Self respect comes into play when the worker is doing a job which he understands and which he approves. Social approval acts when employees participate as a group in such a way that each knows he is obtaining the approval of the other members of the group by doing his assigned task. The importance of this aspect as a contributing factor to job satisfaction was intentionally mitigated it seems, due to the fact that it clashed with the principles of scientific management where every worker was to be instructed about each physical movement he was to make and was to adhere to those instructions. Gradually, however, this factor came to be recognized as a potential source of satisfaction and enhanced productivity. Stagner
(1956; p. 253) has aptly remarked that the followers "like to be able to pass responsibility for decisions to a leader, they resent being ignored. Most of them like to have a chance to express an opinion, to be consulted about details of their job assignment."

In an American survey conducted in 1938 (Fortune, 1938) two items relating to participation were listed among the twelve most important things workers wanted.

Jacobson (1951) citing results of an investigation conducted by him in an automobile manufacturing plant on some 400 workers states that 70.3 of workers believed the foreman should consult them about work assignments, 84.5 wanted the union stewards to consult them before taking any action. 45% said that the foreman hardly ever consults them and 14% had the same opinion about the shop stewards. However, the shop stewards and foremen have another story to tell. 83% of the stewards and 21% of foremen admitted failure to discuss matters with the workers. Jacobson's data indicate that the workers always favorably respond to opportunities to participate. They are more pro-union in departments where the stewards consult them. In departments where foremen consult them little difference is made in pro-management attitudes but decrease in anti-management attitudes was observed.

In another study, Wickert (1951) comparing questionnaire responses of telephone operators and service representatives
who were still on the job and those who have left, found that major differences were in responses to items about the degree to which they could influence conditions on their jobs. Those who remained on the job reported with greater frequency that they had a chance to make decisions on their job and that they were making an important contribution to the success of the company.

Ross and Zander (1957) obtained questionnaire results on 2680 female workers of a large company; 168 of these resigned during the four month period following the administration of the questionnaire. These investigators selected two employees from those still in employ against each worker who resigned. Investigations revealed that the largest difference between the attitudes of workers who resigned and the matched 'continuing' workers was in their responses to questions about 'the amount of autonomy and the amount of recognition they received'. Those who resigned reported less frequently that they were 'on their own' when they worked or that they were fully informed about the quality of their work.

In a field experiment conducted by Morse and Reimer (1956) it was conclusively proved that participation enhances satisfaction. They took workers of four parallel divisions of the clerical operations of a large insurance company. Two programmes of change were introduced. One was known as the
"autonomy programme" and the other "hierarchically controlled programme". The first was introduced in two divisions and was designed to increase the role of rank and file employees in decision making. The second programme was introduced in the remaining two divisions and was designed to increase the role of upper management in decision making. It took about six months to introduce the changes, and the whole experiment was carried on for about a year. Increase in productivity was recorded under both the programmes. Increase in satisfaction was recorded under the autonomy programme and decrease under the hierarchically controlled programme.

French, Israel and Is (1960) conducted a field experiment in a Norwegian factory. They took five experimental and four control groups, each having 4 workers. All the nine groups were given new products to produce. The experimental groups were allowed to participate in the decision making involved in the change. They could meet their foremen and representatives of the planning department to decide about job assignments. Two of these (experimental) groups held extra meetings in which they helped to decide about the division of labour into four jobs, assignment of these jobs to group members, and providing training for new jobs. Results indicated that the experimental groups displayed a higher level of satisfaction on 10 of the 14 satisfaction items compared with the control groups but only three of these items were found to be
significantly different.

In another experiment conducted by Kay, French and Neyer (1960), results similar to the earlier study (i.e., by French, Isnell and as) were obtained. These investigators varied the amount of participation on the part of individual salaried employees of a plant manufacturing aero engines, within the "goal planning sessions" with their supervisors. Half of the workers were given opportunity to participate to a major degree in the goal setting for future. The other half were given much less opportunity. At the termination of the goal planning sessions interviews were conducted with both the low and high participation groups. Few differences in attitudes were reported. However, the high participation group accepted a higher job goal than the low participation group.

It is evident from the experimental results quoted above that there is no consistency with regard to the impact of participation on satisfaction. There are mixed results. Vroom (1964) conjectures that "the amount of satisfaction obtained from a given amount of influence might vary considerably with the nature of the decision, the desires of the person, and the nature of the social situation in which the influence is exercised. Taking such variables into account may help explain discrepancies in findings" (p. 118).

Vroom (1964; 1960) in two of his earlier studies
obtained evidence suggesting that the effects of participation in decision making on satisfaction depend on the personality of the participant. Results indicated that the amount of participation was most positively related to the satisfaction and performance of individuals high in need for independence and low in authoritarianism, and vice versa.

The results of the present investigation (Table 16-IV, item 2) suggest that participation is an important factor contributing to satisfaction. 51.1% of workers in group A report satisfaction with this aspect as against 12.2% in group B. Group A was led by democratic supervisors and participation is an important characteristic of democratic set-up. It was only to be expected that workers in this group will report higher satisfaction with participation aspect. Similarly, a group led by autocratic leaders obviously reports participation to a lesser extent as shown by our results for group B. These results indicate that supervision really matters. No organization, whether political or industrial, can justify itself as democratic if it curbs participation. Industrial organizations, especially production lines, are usually reported to be autocratic. Production-line supervisors want "results" and to achieve this end they have to take recourse to practices which are at the most semi-autocratic. The production-line democracy is different from the political or group discussion democracy. The fact that about 49.5% of employees in group A did not feel satisfied with
participation should not be taken to indicate autocratic supervision. As mentioned above, industrial democracy is limited in scope. In industry, it seems, there can be only "lesser" or "greater" amount of democracy; there can never be complete democracy. This is evident from our results. The democratic organizational structure is one in which more workers are satisfied with participation compared to workers from the autocratic organizational structures.

We shall discuss now another aspect of job life, namely, reward and punishment.

**Reward and Punishment:**

This includes here such allied aspects as 'praise', 'blame', 'rewards accompanying good work' and 'severity of punishment'.

It is a matter of common knowledge that human activities are usually directed to some end. These ends generally represent achievement of satisfaction and rewards. Rewards, like punishment, can be material as well as psychological. A worker getting a word of praise or 'pat on the back' from the supervisor for good work feels rewarded; likewise, a worker getting reprimand feels punished though such a verbal action may not accompany any physical or material loss. The relative efficacy of reward and punishment has been demonstrated by experimental psychologists. Thorndike (1932; 1933a; 1933b).
Lewin (1935), Binner (1953), and朋se (1947), to name a few, have all recognized the value of reward and punishment in human and animal learning.

Lewin (1935; p. 400) believes that "praise is a form of ego satisfaction" with greater motivating power for children as well as adults. The converse of praise, blame or reprimand, then should be taken as a form of ego frustration. In industrial settings there are daily opportunities for praise and reprimand. It is believed by some psychologists (Harrell, 1964; Lewin, 1966) that punishment is more frequently used in industry than praise. Praise is usually not preferred due to the fact that good work is expected of workers always. Punishment and reprimands are common because they are easier to prefix and they also gratify, according to Harrell (1964; p. 247) "the frustrations of the supervisor".

Experimental evidence connected with the problem of productivity and reward (praise) indicates that there is a marked increase and improvement in work due to praise. Burlock (1925) working with 100 children as subjects reported distinct improvement in performance due to 'public' praise. Gilchrist (1916) had earlier reported findings similar to those of Burlock's.

In one of her investigations, Burlock (1931) found no difference between the effects of praise and blame.

Thompson and Hunicutt (1944) did not find any
significant difference between the effects of praise and blame on performance of subjects but reported that introverts improved their performance following criticism compared with extroverts.

Vroom (1964) has very aptly observed that if a worker expects to be praised (or criticized) for ineffective as well as effective performance he will lose all motivation. He believes that both praise as well as criticism "would be expected to be effective sources of task motivation only if their attainment is believed by workers to be contingent on their level of performance of the task" (p. 217). This implies that praise for proper work and blame or reprimand for improper performance of duties should be given at appropriate occasions. Only then they act as motivators.

Results of the present investigation reveal that in a group led democratically, 60.9% of employees felt rewarded for good work as against only 12.2% in the autocratically led group (see Table 16-IV; item 3). Similarly, 65.2% in the democratic group considered that they were given "proper praise" against only 18.7% in the autocratic group. 48.5% in the democratic group and only 20.9% in the autocratic were satisfied with the 'severity of punishment' aspect. This clearly indicates that democratic leadership in industry is earmarked by proper dispensation of praise and blame to the workers and this is a
factor which generously contributes toward worker satisfaction. Autocratic leadership deprives the worker of a feeling of receiving proper praise and blame, and hence, causes dissatisfaction. Vroom's earlier hypothesis seems to corroborate the results of our investigation.

We shall now discuss the supervisory treatment aspect of job satisfaction.

**Supervisory Treatment:**

Supervisor and supervision constitute two very important facets of an organization. Supervision is necessary both for maintaining a certain level of productivity and for maintenance of group cohesion. This is true in case of such social groups as the military, school, industry and even family.

The earlier experimental investigations connected with productivity and leadership style (supervision) have been reported at some length earlier.

The supervisor in an industrial unit holds psychologically a unique vantage point. As Harrell (1964; p. 272) says: "To the worker his supervisor is the company". Smith (1965; p. 123) has also opined that it is only through the foremen that "the worker daily meets management face to face". The foreman or supervisor can be assumed to be the connecting link between workers and management. He is assigned the dual
task of representing management to workers and workers to management. His position makes him highly vulnerable to criticisms from both sides. Psychologists have come to acknowledge the importance of supervisor's role for not only maintaining high production but also workers' satisfaction and morale. Hoppock (1935) through a survey established that a worker likes to have a 'boss' who is fair-minded and makes an effort to understand his problems, answers his questions, and gives consideration to his needs. He also found that liking for the boss was the third most commonly mentioned reason for liking the job. Walker and Guest (1952) have also reported that about 75% of workers in the assembly plant considered their foremen getting along well with the workers.

Views differ regarding the importance of supervision as a factor in morale and job satisfaction. Putnam (1930; p. 325), discussing the results of the interviewing programme in the Hawthorne Works of the Western Electric Company observes that "the comments from employees have convinced us that the relationship between first line supervisors and the individual workman is of more importance in determining the attitude, morale, general happiness, and efficiency of that employee than any other single factor". On the basis of their study Herzberg and associates (1969) have reached just the opposite conclusions. According to these investigators: "The negligible role which
interpersonal relationships play in our data tallies poorly with the assumption ... that the way in which a supervisor gets along with his people is the single most important determinant of morale" (P. 115).

The survey conducted by Herzberg, Mausner, Peterson and Capwell (1957) in which data from 16 studies were compiled establishes the relative importance of the factor. In all the fifteen studies reviewed, workers were asked about what made them satisfied or dissatisfied with their jobs. As a source of satisfaction, supervision was mentioned next only to 'relationships with co-workers'. Supervision was rated fourth in the same list of job factors when considered as a source of dissatisfaction.

Various supervisory behaviours have been taken to influence workers' morale and satisfaction. The extent to which a supervisor is 'considerate of the desires of his workers' is believed to have a direct bearing on the satisfaction of workers. This aspect has been extensively investigated and different names have been given to it. Kahn and Katz (1957) call it "employee orientation", Halpin and Winor (1957), and Flishman (1957a; 1957b) termed it "consideration", and Likert (1958), has used "attitude toward men" to refer to this supervisory behaviour. Investigations conducted by the Survey Research Center (Katz, Maccoby, and Morse, 1951; Katz, Maccoby, Gurin, and Floor, 1951)
contrasted "employee-oriented" and "production-oriented" supervision. Even here the amount of consideration shown to employees was an important feature.

The factor of supervision holds a very important place in our study. Supervision represents the independent variable here. Such important aspects as 'sympathetic treatment', 'considering workers as hard-working and qualified', 'humane treatment', and 'external help to workers' were investigated. The results clearly indicate (Table 16-IV) that appreciably wide differences exist between the two groups regarding all aspects of supervision. It is evident from our results that there is greater satisfaction in group A compared to group B about all aspects of supervision. We find that in the democratic group 63.2% of the workers hold the view that they were sympathetically treated by their supervisors, the corresponding figure was only 33.07% for the autocratic group. The trend is the same for 'consideration of workers as hardworking and qualified' 66.9% in group A against 33.63% in group B were satisfied with this aspect. Very marked difference is also noticeable regarding workers' opinion about receiving 'humane treatment' from their supervisors. Only 13.3% in group B considered that they were receiving humane treatment from their supervisors whereas 53.3% held the same opinion in group A. Differences are also observable with regard to the 'external help from officials' aspect. It refers to the assistance and guidance about a
problem not connected with the job. 54.8% in group A against only 12.2% in group B reported receiving such a help from their supervisors.

Another important aspect associated with management is 'opportunities for advancement' or 'promotion'.

Promotion Policy:

The term promotion refers to an individual's upward move in the same organization. Due to retirement, resignations or expansion, every organization tends to acquire vacancies in higher level positions. These vacancies can be filled by two sources: (a) by selecting a new incumbent from outside the organization, or (b) by upgrading or promoting a worker from the ranks of the parent organization. Vroom (1964; p. 152) believes that, "The opportunities for promotion afforded organization members are highly variable and are often assumed to have a marked effect on job satisfaction". However, all employees in a given organization do not receive promotions; they may 'remain in the same role throughout their organizational membership'. Promotion, in the form of position at a higher level in the same organization involves changes in supervision, co-workers, job content, and pay.

The impact of promotion on employees' attitudes is great. As Herzberg and his associates (1959; p. 62) suggest, "The
power of a promotion to increase job satisfaction is often related to feelings of growth, recognition, achievement, responsibility. Motives of recognition and achievement are best served by promotion. Harrell (1964; p. 271) very rightly holds that, "Even where a person does not believe that he deserves a promotion, it is still highly important to him that the best men be promoted." In cases where the best candidates are not promoted an unfavorable attitude develops in terms of belief that individual merit is not rewarded.

Promotions are granted in terms of merit or seniority. The former is considered more sound from the point of view of employee attitudes.

Several surveys have established the importance of this aspect in the job life of an individual. Stagner (1950) in a survey found chance to get ahead as being rated amongst the 'first five items' by 41.9% of respondents in terms of relative importance. Only 'steady job' and 'pay' were rated by a higher percentage than 'chance to get ahead'. Jurgensen (1948) found that the importance of advancement increases as level of education increases. Sales, clerical and skilled applicants are most interested in advancement, closely followed by the semi-skilled. Unskilled labourers are less interested in advancement than any other group. The same investigator also
found that those who were already at the top of the occupational ladder were most interested in further advancement, and those at the bottom were least interested in advancement. This indicates that the importance of promotion is not lost to those who in the course of their long careers have already attained almost all possible promotions. To different individuals promotion represents different outcomes. Vroom (1964; p. 153) hypothesizes, thus, "The likelihood that an individual will be promoted to a given position within a specified time period may be assumed to vary from 0 (representing no possibility) to +1 (representing certainty) and may be defined in both objective and psychological terms. Such variations in amount of promotional opportunity have most frequently been studied as possible determinants of job satisfaction or morale."

Spector (1956) assessed the impact of promotional opportunities on job satisfaction in laboratory situation. Individuals were assigned to four-member groups and were to work on a simulated military problem. Each member was required to decode a different part of the group's message. Some groups were given the assurance that three out of four members will be promoted on completion of the first message whereas in some groups the assurance was in terms of promotion for one group member only. After completion of the message all the members of half of the groups were promoted and none of the members from
the rest of the groups were promoted. There were, now, four
group of subjects: (a) those who believed that they had a high
probability of being promoted and were promoted; (b) those who
(b) those who believed of high probability and were promoted; and
(c) those who believed of low probability but were not promoted; (d) those
who believed in low probability and were not promoted. Morale
or job satisfaction was assessed by a six-item scale which was administer at the completion of the second message. It was
found that subjects who were induced to believe about low pro-
bability of promotion had higher morale. Those who received a
promotion, irrespective of their expectations, had higher morale
compared to those who did not receive promotion. Spector (1966)
concludes from his results that "personnel managers might be
wise to underplay, rather than overplay, the opportunities for
advancement in their organization" (P. 55).

Morse (1953) using data from an electric utility
company concluded that a negative relationship exists between
workers' ratings of importance of promotion to them and their
satisfaction with their promotional opportunities. Sirotka's
(1969) investigation in an electronic manufacturing organization
revealed a negative relationship between measures of promotional
frustration and measures of attitudes toward the company. Pro-
motional frustration was assessed by subtracting an individual's
estimates of how soon he would like a promotion from his esti-
mates of when he expected a promotion.
From the evidence cited above it is apparent that promotional opportunities are directly and intimately interlinked with job satisfaction. A satisfactory promotion policy is more than a device to bring recognition and higher wages to a worker. It represents fairness of management as a group, towards employees. Results of the present investigation reveal marked differences between the two groups with regard to this aspect of management. Observing table 16-IV (item 6) we find that only 16.73% of employees in group B showed satisfaction with promotion policies whereas 42.03 employees in group A reported satisfaction with promotion policies. Autocratic leadership, it seems, generates a vague insecurity which is reflected in criticism of promotion policies. It can very safely be assumed that promotion policies of the two departments were identical since they belonged to the same parent organization. Differences in immediate leadership explain differences in outlook. It also suggests that satisfactions in a worker's life are guided by what he feels towards certain aspects of his job rather than by what these job aspects objectively are. It further suggests that supervision is a very potent influence in vitiating workers' perception.

We shall now deal with some of the important aspects of social relations and personal adjustment areas. These 'off-the-job' areas are believed to make their own contributions
toward job satisfaction. Although the importance of these areas has been recognized in theoretical discussions, most of the research investigations have neglected these areas. This has resulted in an absolute paucity of available findings connected with these areas. There is complete absence of reliable investigations directed at finding out whether 'away from work' factors influence 'on the job factors'.

Krech and Crutchfield (1948; Pp. 543-544) hold the view that "The data indicating that neurotic and 'unadjusted' individual has low worker morale do not demonstrate that job conditions are of little consequence in determining the dissatisfaction of these workers. Dissatisfactions arising from outside the job are frequently reflections of job conditions". Watson (1939) very rightly observes that none of the correlational studies have been able to conclusively determine which is cert and which is horse when dissatisfaction outside the plant are correlated with dissatisfaction inside the plant.

Evidence is available on the issue that low job adjustment co-exists with low social and personal adjustment. Akhtar (1963) in his unpublished doctoral dissertation and in a later study (Akhtar & Pestonjee, 1963) found corroborative evidence on the issue.

Herzberg and associates (1959; P. 93) in their report on engineers and accountants conclude, "Managerial and
professional people notoriously take their jobs home with them ... Many of our respondents very pointedly informed us that they did not let the tensions of the job affect their families. Is this a sign of the psychological sturdiness of our sample? Perhaps we should have asked their wives." And further, "It is likely that the degree to which a person lets his feelings about his job spill over into the conduct of his interpersonal relationships is more a function of his psychological dynamics as an individual than of anything else" (p. 98).  

Krech and Crutchfield (1948) have made an important point while discussing problems connected with industrial conflict. According to these authors certain cases of industrial conflict "can be considered as maladaptive expressions of the personal frustrations of workers and management—frustrations that may have little to do with conditions of work or wages .... The sick personality or the unadjusted individual is frequently an initiating and sustaining factor at the bottom of any type of social conflict—political, religious or industrial. And maladjusted personalities are not restricted to the members of any one socioeconomic group" (p. 563). This highlights the role of social and personal dissatisfaction (maladjustments) in industrial conflict. Its converse would mean then, that personal and social satisfactions help maintain industrial harmony. It is only logical to assume that an individual maladjusted in
his social milieu runs a high risk of remaining maladjusted in his work-milieu also. The job life is beset with certain frustrations and satisfactions which are typical to it but it remains a social situation and like any other social situation it puts certain demands on individuals who are interacting in it. How successfully an individual copes with these demands depends upon his previous training, native equipment, and 'psychological dynamics'. The worker enters his work environment with a unique combination of traits and characteristics which we call personality he is not a 'tabula rasa'. Most of his traits and characteristics are put to test in his job life. Some are not required, some have to undergo modifications, and some are required to be developed. These are taxing demands. Adjustive bonds are to be established not only between the person and his tools and equipment but also between the person and scores of other members of the same organization. In industrial organizations rigid stratification exists and the individual employee has to develop adjustive reactions to avoid frictions with (a) those under him, (b) those with him, and (c) those above him. It needs social skill.

Research investigations have taken note of some of the socio-personal aspects, like, personality, health, childhood experiences, training and socialization. Work connected with mental health of industrial workers is gaining impetus.
Viteles (1932; p. 586) holds that "vocational maladjustment is a reflection of emotional maladjustment." He further suggests that "The individual whose emotional balance is distributed for any reason whatsoever will express this not only in his relations at home, in his social group, but also at work" (p. 587).

Fisher and Hanna (1931) in their book "The Dissatisfied Worker" very emphatically stress the role of emotional maladjustment in vocational maladjustment. These authors observe that emotional maladjustment breeds within the worker "dissatisfaction and thwarts him in his search for happiness and success. Inasmuch as his feelings and emotions are inherent aspects of himself, he carries them with him ... into every situation which he enters. Now, since he does not usually know the reason of his dissatisfaction, does not understand the why for and nature of his maladjustment, it is not surprising that he very frequently attaches or attributes it (his dissatisfaction) to his work or his working situation. He then feels dissatisfaction with his work and becomes a vocationally maladjusted individual" (p. vii-viii).

The sources of emotional disturbances, according to Fisher and Hanna are:

1. Those resulting from emotional immaturity, emotional infantilism.
“(2) Those resulting from the exaggeration or over-expression of one or more drive-emotions.

“(3) Those resulting from decidedly unnatural or abnormal expressions of drive-emotions, i.e., from substitutive forms of activity which are neither satisfying to the individual nor contributory to the welfare of the social group” (p. 72).

These investigators divided emotional maladjustments into (a) milder emotional maladjustments and (b) serious emotional maladjustments. These have their own manifestations. Manifestations of milder emotional maladjustments in industry are:

i. Petty jealousies
ii. Mild forms of self-pity
iii. Lack of cheerful co-operation
iv. Fault finding
v. Hard-boiled tactics and labour agitation
vi. Desire for undue attention, feigned bravery and foolhardiness as a retreat from fears.

Serious emotional maladjustments are manifested by:

i. Frequent change of jobs
ii. Extreme reticence and withdrawal
iii. Tired feelings
iv. Spasmodic and irregular application

v. Dry-dreaming

vi. Deficiency in range and power of attention, distractibility

vii. Extreme irritability.

viii. Nervous indigestion, nausea

ix. Abnormal fears, fear neuroses

x. Feelings of being spied upon, watched or followed.

xi. Hearing voices, and

xii. Miscellaneous symptoms.

Fisher and Hennes' work is beyond any doubt one of the most exhaustive and insightful one but its inherent drawback is that it deals only with casualties of the industrial world. By emotional maladjustments they meant 'the wide variety of psychotic disturbances of personality' which adversely influences the individual's adjustment in 'every phase of life'. The Indian labour market has a bountiful surplus of unskilled and semi-skilled manpower, hence, there is enough opportunity for the employer to pick-and-choose. It may be said with reasonable certainty that 'casualties of the industrial world' do not appear in our sample.

Some of the important aspects of Social Relations and Personal Adjustment areas are discussed below.

Health

Scientific concern with the individual worker and his
problems is not of ancient origin but concern with the health of the worker is several centuries old. Paracelsus published a monograph as early as 1567 on "Miners' Sickness and other Miners' Diseases". The earliest text-book dealing with health of manual workers is believed to be the "Diseases of Tradesmen" by Bernardino Remazzini (1635-1714).a

Health is an important factor both in job selection and job adjustment. Modern factory and workshop life in spite of automation puts certain exacting demands on the physique of the worker.

A manual for supervisors compiled as a sequel to Hawthorne studies by the Western Electric Company (1938) clearly acknowledged the impact of health and illness on job satisfaction.

It is logical to assume that good health may not be a potent source of satisfaction in case of semi-skilled, unskilled or skilled employees but bad health can very adversely influence job satisfaction of these categories of employees. Health 'as a handicap in progress' or 'health of family members as a source of concern' are two aspects on which there is negligible difference between responses of the two groups of our sample (Table 18-IV items 2 (c) and (b)). But group B employees

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show higher satisfaction than employees of group A when asked to report about 'fatiguability'. Only 37.3% in group A report that they are not easily fatigued whereas 47.08% in group B report absence of early fatigue. Discrepancy between the two groups may be accounted for in terms of the conditions prevailing in the two departments. Environmental and atmospheric conditions under which group A worked were somewhat more unhealthy compared to conditions under which group B worked.

Artificial humidity and noise were environmental characteristics under which group A worked and these may explain a higher susceptibility to fatigue. Noise level was high in case of group B also but there was a lesser amount of humidity.

Caste Barriers:

This aspect of social living is insignificant for workers in many countries of the world but not so for Indian workers. Casteism - not to speak of communalism - has been and even now persists as a determining factor in interpersonal choices. Even vocations are caste-determined. The so-called high-caste vocations were practised only by the high-caste members. Legislation has now abolished all such 'sanctuaries'.

Dye (1962), and Keenan and Kerr (1962), have reported discrimination against Negroes in America as an example of caste-barriers to employment. In our findings (Table 17-IV, item 6)
this aspect affects both the groups with almost equal force. 40.4% in group A and 40.0% in group B report that they are satisfied with prevailing social customs and caste-barriers.

**Personality:**

"Personality has been suggested as a major cause of job dissatisfaction", holds Harrell (1964; P. 262). Vroom (1964; P. 160) also suggests that, "Persons who are satisfied with their jobs are assumed to differ systematically in their personalities from those who are dissatisfied". Different investigators have used different techniques to study personality and establish a relationship between measures of adjustment or neuroticism and job satisfaction. Heron (1952; 1955) used inventories, Kornhauser and Sharp (1932), Hoppock (1925), and Nay Smith (1936) used interviews, and Kates (1950) used projective tests.

In an investigation conducted by Kornhauser and Sharp (1932) on female employees it was found that of the 25 most neurotic, 16 were more dissatisfied than the average and of the 25 most stable, only 3 were dissatisfied.

Weitz (1962) found a high correlation between 'general satisfaction' and 'job satisfaction'. This indicates the possibility that some job dissatisfaction is caused by the personality traits.
The survey of studies conducted by Herzberg and associates (1957) summarizes the results with the description of satisfied work-personality and dissatisfied work-personality, thus: "The satisfied worker is, in general, a more flexible, better adjusted person who has come from a superior family environment, or who has the capacity to overcome the effects of an inferior environment. He is realistic about his own situation and about his goals. The worker dissatisfied with his job, in contrast, is often rigid, inflexible, unrealistic in his choice of goals, unable to overcome environmental obstacles, generally unhappy and dissatisfied" (p. 20).

Findings of the present investigation do not indicate any appreciable discrepancy between satisfaction scores of the two groups on the 'Social' and 'Personal Adjustment' areas. Results in table 9-IV (items 6 and 7) indicate that significant difference (p<.001) exists between Job and Management areas (combined scoring) of group A and B. On the other hand no significant difference exists between the scores of the two groups on Social Relations and Personal Adjustment areas (combined scoring). This indicates that Social Relations and Personal Adjustment areas are free from the influence of the independent variable, i.e., organizational structure. Contrary to expectations, group B has a higher mean score (21.018) compared to
group a (18-9) on Social Relations and Personal Adjustment (combined scoring) areas (Table 8-IV). Ganguli (1964; pp. 111-113) reports similar results in one of his studies. He observes that "individuals in . . . poorly-run shops have a greater desire for social contact and interaction (compensatory in nature?) than persons in the shops which are better run, perform better and have a higher morale. And this phenomenon seems to be independent of the nature of work done. To what extent this is generalizable however is not known". Akhtar (1963) in his doctoral dissertation concerning employees' adjustments and attitudes reports identical findings. In his sample he found no significant difference between the 'social' and 'personal' adjustment scores of two groups of workers whose scores on 'job' and 'management' areas differed significantly.

In the light of the above it can be suggested with some amount of certainty that socio-personal adjustment and satisfaction has no relationship with job satisfaction at least in case of Indian workers.

Extent of Satisfaction:

Ganguli (1964; p. 79) has provided figures concerning extent of job satisfaction of Indian workers. Calculating the percentage of employees (N = 1279) who could be rated as
'Satisfied', 'Average', and 'Dissatisfied', Ganguli found the following results:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>22.8%</td>
</tr>
<tr>
<td>Average</td>
<td>43.5%</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>33.7%</td>
</tr>
</tbody>
</table>

Findings of the present investigation (Table 10-IV) reveal identical trends and close approximation to those of Ganguli's, in so far as results of group B are concerned. In case of group A, the trend remains the same but the percentages differ. Ganguli's findings along with findings of this investigation are presented below:

### Findings of the present investigation

<table>
<thead>
<tr>
<th>Extent</th>
<th>Group A</th>
<th>Group B</th>
<th>Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Satisfied</td>
<td>42.3%</td>
<td>20.6%</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Moderately Satisfied</td>
<td>45.9%</td>
<td>41.9%</td>
<td>Average</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>11.7%</td>
<td>37.4%</td>
<td>Dissatisfied</td>
</tr>
</tbody>
</table>

Tables 18-IV to 24-IV contain results obtained on the Employees' Morale Scale. The four sub-scales were developed on the basis of aspects of management and job which we have discussed at some length earlier while reviewing the job satisfaction aspects. 'Fairness of policies and behaviour',

...
'adequacy of immediate leadership', 'sense of participation', and 'sense of worth of the organization' are aspects of job life which have found place in discussion of job satisfaction results. It was pointed out earlier (Chapter I) that most of the studies concerned with morale or job satisfaction have been freely using the two terms interchangeably. A distinction has been made (Chapter I) between employees' morale and job satisfaction for purposes of this investigation hence, two measuring devices.

The Employees' Morale Scale (EMS) has been developed on Thurstone's principle of scale construction. Each statement of the scale has a predetermined value (or morale score). The scoring procedure has been discussed in Chapter III of the present work. Due to the typical scoring procedure it is not possible in case of the EMS, to compare percentage responses as was done for job satisfaction responses. Comparisons are possible only in terms of mean, median, S.D., Q1, Q3. and testing of significance of difference.

The overall morale (19-IV) of the two groups shows wide discrepancy in terms of mean and median and also in terms of Q1, and Q3. Group A shows consistently high scores in terms of all the statistics mentioned above. However, the differences appear to be very slight. But these small differences are deceptive as has already been discussed in the earlier
Results (Table 24-IV, item 4) indicate that 'Sense of Worth of the Organization: Regard and Identification' is the only sub-scale on which the two groups come somewhat closer to one another. While all the differences are significant at $\alpha = .001$, difference between the scores of the two groups on 'Regard and Identification' are significant at .10 level. From this it may be inferred that the way an individual worker looks at his company is not the same as his perception of the supervisor. This can possibly be explained by assuming that the regard a company receives from the public in general goes to determine the regard it will receive from its employees. Here, we may say that social (group) perception influences individual perception. Every important industrial unit creates an image about itself in the public mind and this image is reflected in the perceptions of its individual employees. In spite of lower overall job satisfaction it was found (Table 16-IV, item 7) that workers of group B had higher 'general regard for the company', compared to workers of group A. The dynamics of this response are far from clear. There are no theoretical or empirical findings on the issue. However, Bullock (1952) reports that dissatisfied workers in his study tended to answer in negative to the question: "Have you ever recommended this organization or a job with this organization to one of your friends?" This
question can be taken as an index of the regard one has for the company. Our results suggest that regard for the company and identification with the company is independent of influence of the supervisory practices. The average morale score on the sub-scale 'Regard and Identification' indicates a somewhat higher score for group A employees. The differences between scores of group A and B are apparent yet they are not as significant as in case of the remaining three sub-scales.

Results of our morale survey confirm those obtained by Hull and Kolstad (1942). Assuming employees morale 'to be a function of the worker's general attitude toward his job and toward his company as an employer', they found that foremen, department managers, and others having direct supervision over workers play a tremendously large part in the determination of employee morale. The quality of immediate supervision created a mental set which carries over to, and influences attitudes on factors of the job situation which are not controlled by the supervisor. Hull and Kolstad, as in the case of our investigation, found marked variation in morale scores for different departments in the same plant. Workers in these departments were on essentially the same type of operation and with identical hours and pay. The only variable which could account for differences in morale score was the nature and quality of immediate supervision.
In conclusion it may be said that immediate supervision is a potent source of job satisfaction and employees' morale. As Kuhn and Katz (1953; p. 618) observe ... "the style of supervision which is characteristic of first-level supervisors reflects in considerable degree the organizational climate which exists at higher levels in the management hierarchy". Our findings lead us to the conclusion that a democratic organizational structure is conducive to higher employees' morale and job satisfaction compared to an autocratic organizational structure. An inescapable conclusion is that the first-level supervisor exercises a very potent influence on employees' morale and job satisfaction. Another important conclusion is that job-life satisfactions and dissatisfactions are free from any influence of satisfaction-dissatisfaction in the socio-personal spheres of a worker's life. Its obverse would be that high socio-personal satisfaction or adjustment fails to guarantee high job satisfaction.