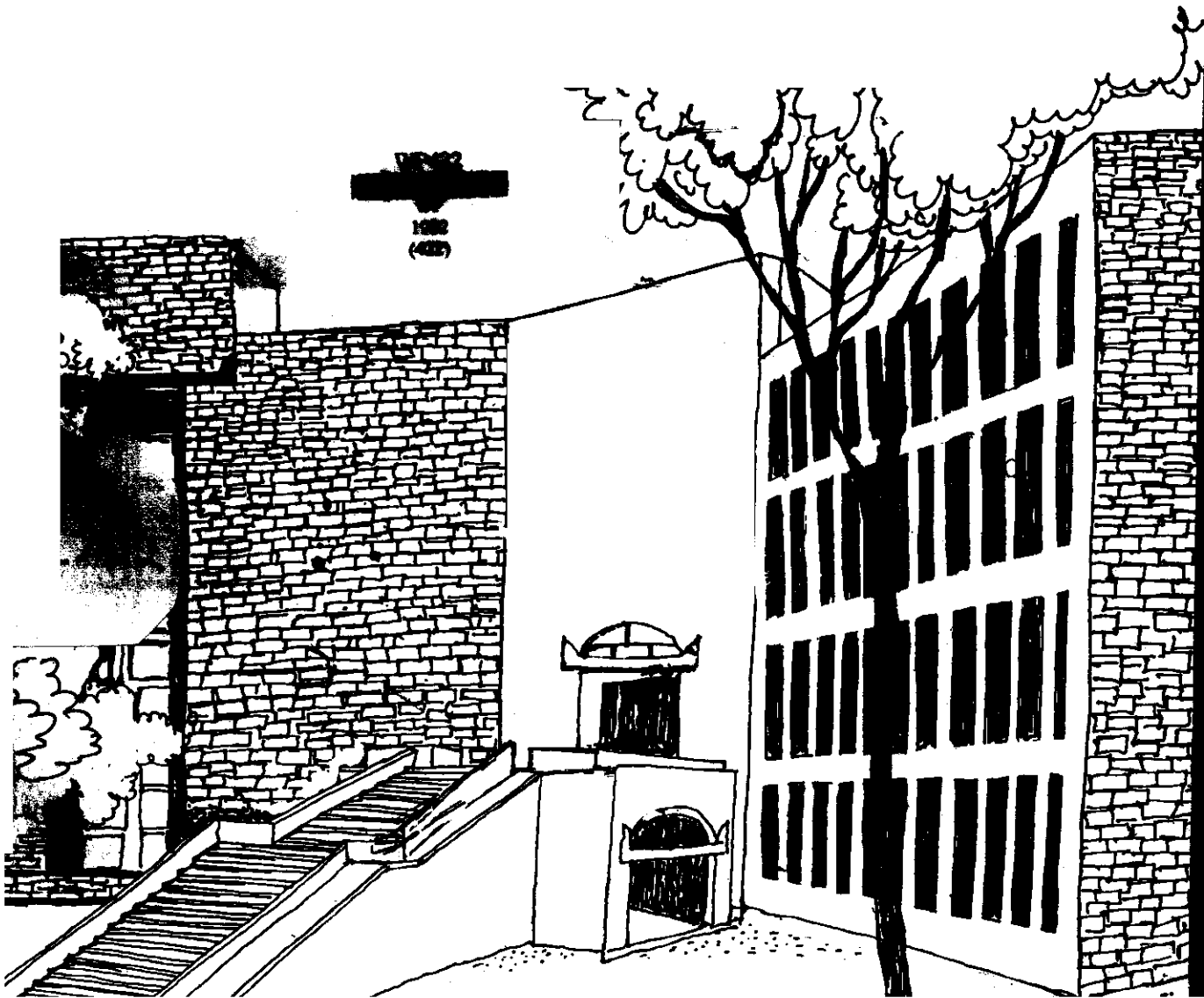




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PERFORMANCE IN RELATION TO ANXIETY
AND JOB INVOLVEMENT

By

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PERFORMANCE IN RELATION TO ANXIETY AND JOB
INVOLVEMENT

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ABSTRACT

In this investigation an attempt has been made to study the effect of anxiety and job involvement on performance of workers. Two psychometric tools were administered to 600 rank-and-file workers of a textile unit to assess their levels of job involvement and anxiety. The index of their performance was the actual production records.

Statistical analysis of the data indicate that both anxiety ($F = 86.92$; $df = 1,596$; $p < .01$) and job involvement ($F = 73.43$; $df = 1,596$; $p < .01$) have significantly affected performance. There interaction were also found to be significant ($F = 41.19$; $df = 1,596$; $p < .01$). Findings indicate that for higher performance high job involvement and low levels of anxiety were necessary. Anxiety was found to be detrimental to performance even in the case of high levels of involvement.

Usually the relationship between job involvement and performance has proved to be complex, confusing and far from conclusive. The studies conducted by Lodahl and Kejner (1965), Lawler and Hall (1970) and Siegel and Ruh (1973) have found no significant relationship between job involvement and performance. On the other hand, using a sample of 94 supervisors and 305 nonsupervising electronics employees Vroom (1962) observed that a worker's performance, as judged by supervisory ratings, depended on his ego-involvement, with those judged higher in performance being one's with higher ego-involvement. This was particularly true among researchers as opposed to those in manufacturing. He speculated that a direct relationship between involvement and performance may exist only for jobs requiring valued and possessed abilities. In another investigation Hall and Lawler (1970) using a sample of 22 directors and 291 professionals engaged in applied and developmental work for 22 research and development organizations observed a significant correlation between job involvement and global technical performance ($r = .43, p < .05$), but not the objective or composite measures of performance. Pestonjee, Singh and Singh (1981) have also reported a significant relationship between job involvement and performance. Further, when alienation as measured by Dutt and Kureshi's (1976) A-Scale was treated as a moderator of the involvement performance relationship, the observed relationship became more pronounced for the low alienation group than the higher alienation group. Another

alternative explanation to the job involvement-performance relationship may be that job involvement, rather than having a direct link with job performance may mediate the relationship between job performance and some other variable, for example, job satisfaction, etc. The support for such hypothesization is inherent in the findings of Wood (1974). He examined the effect of worker orientation differences on the relationship between satisfaction and performance. It was hypothesized that for those who are intrinsically oriented (i.e. highly job involved), performance as evaluated by the organization would not correlate with their satisfaction because they would be more dependent on their own standards for determining appropriate performance levels and less concerned with the organizational prescriptions about what performance should be. On the other hand, for those low on job involvement (i.e. extrinsically motivated) satisfaction should be more related to the firm's appraisal standards. The above hypothesis was tested on a sample of 200 skilled and semi-skilled paper-makers. The findings tend to confirm these hypothesis. The above discussed findings suggest that job involvement, when treated alone may seem poorly related with performance. However, in interaction with some other potential variables it might exert profound effect on one's performance.

Present investigation is an attempt to study the effect of job involvement and anxiety on performance under the above discussed assumptions. Anxiety has been chosen in this investigation due to

its potential relationship with performance. For example, Cox (1960), Sharma (1970), and Gupta, Pestonjee, and Singh (1981) confirm the Yerkes-Dodson law according to which the relationship between anxiety and performance tends to form an inverted U-Curve. That is, in case of either very low or very high anxiety performance tends to be deteriorating; for ideal performance medium level of anxiety is necessary.

HYPOTHESES

The following three hypotheses have been formulated:

- (1) There will be significant difference between mean performance scores of high and low anxiety groups.
- (2) There will be significant difference between mean performance scores of high and low job involvement groups.
- (3) The interaction effect of anxiety and job involvement will also be significant.

METHOD

Sample: The study was conducted on 600 blue-collar workers of a large textile mill situated in North India. The mill is under private sector management. The age of the respondents ranged between 24 and 46 years with an average of 32 years. The educational attainment of the participants ranged from uneducated to Bachelor degree holders with an average education of high school (Xth Class). Working experience.

ranged from 4 to 16 years with an average of 8.5 years. The monthly income of the respondents ranged between Rs. 240 to Rs. 520 with an average of Rs. 360.

Design: Since the purpose of the present investigation is to study the influence of anxiety and job involvement on performance of blue-collar workers, performance was treated as the dependent variable. Anxiety and job involvement were treated as independent variables. Using two levels of each independent variable (i.e, high and low anxiety and high and low job involvement) a 2 x 2 factorial design was used to ascertain the main as well interaction effects of the independent variables on performance.

Measures: An adapted version of the Cattell and Scheier's IPAT Anxiety Scale Questionnaire has been used to assess the degree of anxiety (Kapoor, 1970). It consists of 40 items with three response alternatives distributed among the five anxiety components. These factors are defective integration, ego-weakness, suspiciousness, guilt proneness, and frustrative tension. The 40 items of the questionnaire are also divided into two main parts, namely, overt and covert anxiety. The test-retest reliability coefficients of the questionnaire are found to be .93 and .87 after intervals of one week and two weeks respectively. The test-retest reliability is found to be .89 for the covert scale and .82 for the overt scale. The component wise reliabilities (internal consistency) ranges from .26 to .60. The construct validity was estimated .85 to .92 for the total scale.

The Hindi adaptation of Lodahl and Kajner's Job Involvement Scale has been used for ascertaining the level of job involvement (Kapoor and Singh, 1978). The adapted Scale comprises of 20 items in Likert format with four response alternatives, namely, strongly agree, agree, disagree, and strongly disagree. The split-half reliability of the scale was found to be .73. Besides, the reliability of the scale ascertained by Cronback's (1951) alpha coefficient has been found to be .82. The index of homogeneity and internal validity of the scale were tested by computing point biserial correlation.

Performance of the workers was measured in terms of their objective production records available with the company. For this purpose the total production of each worker was recorded for a period of one year (i.e., July 1979 to June 1980). Further it was averaged out for per day average production of each worker by dividing the total production of each worker by the total number of days he worked in the specified period. Each working day comprises of eight hours.

RESULTS AND DISCUSSION

The results of this investigation are recorded in tables 1 to 3. From Table 1 it is clear that the mean performance scores are quite high for those scoring low on various components of anxiety as well on the overall the anxiety measures. The standard deviation scores

TABLE 1 HERE

also reveal the fact that there is less variation in the performance of those scoring low on overall anxiety as well as on its various components except in the case of high frustrative tension versus low frustrative tension. Critical ratios further indicate the obtained differences in performance for high and low anxiety groups (overall as well as component wise) are statistically significant beyond .01 level. These findings are further supported by the fact that anxiety (overall as well as area-wise also) is significantly and negatively related with job performance (Table 2) beyond .01 level. The above findings turn in favour of our first hypothesis which stated that

TABLE 2 HERE

there will be significant differences between mean performance scores of high anxiety and low anxiety groups. The above findings lend credence to our previous observations that the low anxious workers have high performance and vice versa (Pestonjee, Singh, and Singh, 1982). One reason behind this may be the fact that highly anxious workers fail to develop a clear self-concept and lose their ego. The suspicious attitude towards their job and fellow workers of highly anxious workers lead to the feelings of isolation and insecurity. On the other hand, low anxious workers feel comparatively less frustration, and they are less aggressive. They exhibit proper self-regard, self-insight, and self-identity which helps them in personal growth. These workers believe in their co-workers as well as in their

organization where they work and feel easy at the time of performing the task by which they maintain a high level of performance. Further, as suggested by Vroom (1964), anxiety associated by stress may lead to physiological involuntary autonomic responses that interfere with performance, and the subject becomes primarily motivated to reduce the anxiety rather than to perform the task. The above results are consistent with some of the previous anecdotal and experimental evidences which suggest that anxiety impairs the performance of complex tasks (Levitt, 1967; Spielberger & Smith, 1966; Sinha & Singh, 1977; Tecco, 1967).

In the case of job involvement it is evident from the results recorded in Table 1 that those who are highly involved have significantly better performance in comparison to those in the low job involvement group. Further there is less variation in the performance scores of highly involved persons in comparison to low involved group. These results are further supported from the findings that job involvement is significantly ($p < .01$) and positively related with job performance (Table 2). Thus, our second hypothesis that there will be significant difference between mean performance scores of high and low job involved groups is also accepted. The above findings substantiate the results obtained by Madhu and Harigopal (1980) and Singh (1981) that a significant and positive relationship exists between job involvement and performance. The reason for this, as suggested by Singh (1981), may be that highly involved workers have a feeling of company success,

recognition, achievement, and self determination which motivates them to use these abilities and ultimately increase their performance in work situations. On the other hand, uninvolved workers feel that the work is not an important part^{of} their life, the job which they do is not in consonance with their self. This permits them to become alienated from work. They search their satisfaction somewhere else, i.e., away from their job.

The reason behind failures of previous studies (e.g., Lodahl and Kejner, 1965; Lawler and Hall, 1970; Siegel and Ruh, 1973) to obtain significant relationship between job satisfaction and performance measures may lie in the type of population studied. All the above cited studies had been performed in developed countries where extrinsic rewards have lost their much value. Contrary to this in a developing country like India where workers strive hard to seek their bread, extrinsic rewards are of utmost importance and as suggested by Ganguli (1964) for the present and in the foreseeable future money will remain an important incentive for the Indian workers. The above facts, together with Wood's (1974) observations that extrinsically oriented employees exhibit more positive relationship between high job satisfaction and high performance, and between high motivation and low absenteeism than do those who are intrinsically oriented may account for the differences between the results of previous ones and the present investigation.

Our third hypothesis that the interaction effect of anxiety and job involvement will also be significant can be accepted on the basis of results recorded in Table 3. It can be seen from the results in Table 3

TABLE 3 HERE

that the interaction effects of anxiety and job involvement are statistically significant ($F = 10.07$; $df = 1,596$; $p < .01$) along with the main effects of anxiety ($F = 86.92$; $df = 1,596$; $p < .01$) and job involvement ($F = 73.47$; $df = 1,596$; $p < .01$). This, as is shown in Figure 1, indicates that even in the case of high involvement if anxiety tends high mean performance becomes less in comparison to those having high involvement and low anxiety. This relationship

FIGURE 1 HERE

seems to be more pronounced in the case of low involvement group. That is, if high anxiety is accompanied with low involvement performance decrement is maximum. However, if anxiety is low even in the case of low involvement performance tends to be better.

The findings of the present investigation have some practical implications. In situations where jobs have inherent potential to induce high anxiety in the workers a fair deal of performance can be achieved by either placing more dedicated work force or by inducing more involvement through viable means. On the other hand, by reducing the level of anxiety performance can be enhanced even in those low

involved in their job. However, these suggestion should be taken with caution since it is imperative that high anxiety may produce detrimental effects to physical and mental health of the workers.

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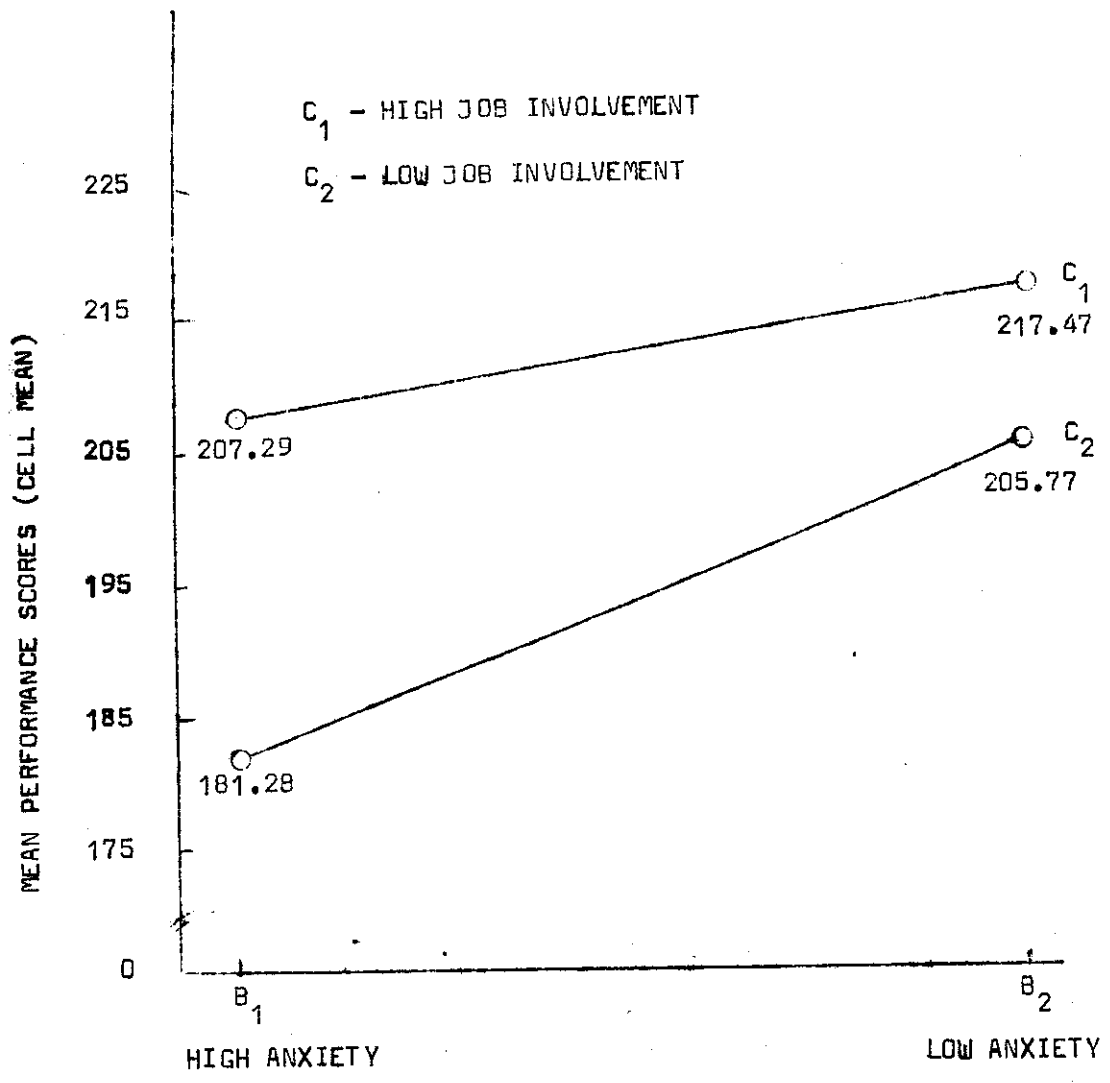


FIG. 1 - PRODUCTIVITY AS A FUNCTION OF ANXIETY AND JOB INVOLVEMENT.

T A B L E - 1

Significance of difference between performance scores of high and low anxiety (Overall and component wise) and High and Low involvement groups.

	N	Mean	S.D.	C.R.	P
High Anxiety (Overall)	285	191.68	27.42	10.23	.01
Low Anxiety (Overall)	315	213.00	23.62		
High Defective Intergration	205	196.26	26.18	11.78	.01
Low Defective Intergration	395	211.50	24.21		
High Ego-weakness	197	185.83	28.41	11.71	.01
Low Ego-weakness	403	211.21	23.04		
High Suspiciousness	243	190.35	28.20	9.88	.01
Low Suspiciousness	357	211.40	23.71		
High Guilt Proneness	282	190.53	26.31	11.37	.01
Low Guilt Proneness	318	213.83	23.90		
High Frustrative Tension	245	193.69	29.20	7.04	.01
Low Frustrative Tension	355	209.22	24.57		
High Covert Anxiety	287	191.90	26.02	10.08	.01
Low Covert Anxiety	313	212.95	25.11		
High Overt Anxiety	269	197.78	28.28	9.51	.01
Low Overt Anxiety	331	211.89	23.50		
High Job Involvement	293	214.04	23.53	10.52	.01
Low Job Involvement	307	192.23	27.04		

T A B L E - 2

Intercorrelation Matrix for performance, anxiety (Overall and component wise) and Job involvement (N = 600)

Variables	1	2	3	4	5	6	7	8	9	10
1. Performance	X	-.5683*	-.4828*	-.4319*	-.3554*	-.5099*	-.3767*	-.5220*	-.4919*	.5561*
2. Overall Anxiety		X	.8244*	.7455*	.5348*	.8571*	.7966*	.8802*	.9033*	-.3150*
3. Defective Integration			X	.5364*	.3061*	.6516*	.5503*	.7409*	.7301*	-.2916*
4. Ego-Weakness				X	.4504*	.5367*	.4844*	.6284*	.6997*	-.1856*
5. Suspiciousness					X	.3298*	.3250*	.4362*	.5108*	-.0732
6. Guilt Proneness						X	.5510*	.7603*	.7689*	-.3427*
7. Frustrative Tension							X	.7109*	.7124*	-.2172*
8. Covert Anxiety								X	.5928*	-.2896*
9. Overt Anxiety									X	-.2712*
10. Job Involvement										X

* Significant at .01 level

T A B L E - 3

Summary of 2 x 2 factorial design : Analysis of Variance

Variance	Sum of squares	Df	Mean squares	F	p
A : Job Involvement	300.51	1	300.51	73.47	.01
B : Anxiety	355.51	1	355.51	86.92	.01
AXB : Job Involvement x Anxiety	41.19	1	41.19	10.07	.01
Error : Within Treatment		596	4.09		