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AN EXPLORATORY STUDY OF THE
RELATIONSHIPS AMONG PERSONALITY
CHARACTERISTICS, WORK SITUATION,
JOB SATISFACTION, AND ABILITY TO
EMPHATIZE IN AN INDUSTRIAL
FRAMEWORK

Thesis for the Degree of M. A.

MICHIGAN STATE COLLEGE

Lilian Khan

1955

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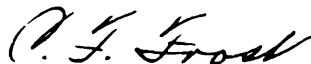
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AN EXPLORATORY STUDY OF THE RELATIONSHIPS AMONG
PERSONALITY CHARACTERISTICS, WORK SITUATION,
JOB SATISFACTION, AND ABILITY TO EMPATHIZE
IN AN INDUSTRIAL FRAMEWORK

By

Lilian Khan

AN ABSTRACT

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
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Department of Psychology

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Approved by

C. J. Frost

There has been considerable interest in studying people in industrial situations, particularly executives and supervisors. The studies were focused initially on the characteristics of personality traits of the individuals, however, more recently studies recognize the importance of the situations in which these people find themselves.

The present study is of an exploratory nature to determine the relationships among different occupational levels, of personality and interests, job satisfaction, and ability to empathize.

Thirty-seven employees of a furniture company were given a battery of tests - Allport Vernon's Study of Values, Bernreuter Personality Inventory, Washburn Social Adjustment Inventory, Kuder Preference Record, How Supervise, Wonderlic Personnel Test, Science Research Associates Employee Inventory, Bullock's version of Hoppock's Job Satisfaction. The result indicated that the executives were more domineering and less impulsive than the supervisors and workers. They had more self confidence and greater mental ability. They had more theoretical knowledge of supervision than the supervisors and workers. The executives and supervisors were more satisfied in their jobs than the workers. They were better able to empathize than the workers.

It was also found that those who were more satisfied were less theoretical and more economical in their values.

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The less satisfied people were more theoretical and aesthetic. The more satisfied group was found to be able to empathize better than those who were less satisfied. The executives and supervisors tended to show greater ability to empathize than the workers.

This study suggests some factors which might be of value in an industrial organization. If the workers have a more complete knowledge of the policies and problems of the industrial organization, they might be more realistic and as a result more satisfied. If the workers can be made more satisfied they might be able to empathize better and understand the problems and situations of their supervisors and executives as well as their fellow workers. It might be of value in the industrial organization to know if there is any relationship between these personality and interest characteristics, degree of satisfaction and ability to empathize, and their respective group production performance.

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CHAPTER I

INTRODUCTION

There has been considerable interest in studying people in industrial situations, particularly executives and supervisors. The early studies were focused on the characteristics or personality traits of the individual. More recent studies recognize the importance of the situation in which these people find themselves. There has been little study or emphasis placed on the influences of these characteristics of the individuals and the importance of the situation as they might be relevant in an industrial framework to such operational factors as job satisfaction and ability to empathize.

Stogdill's survey (17) on the personality factors associated with leadership concludes that average leaders of a group excel the group in intelligence, scholarship, dependability, and socio-economic status. They have more self confidence, better insight, more initiative, and a desire to excel. He also pointed out that the qualities and traits of the leaders depend to a great extent upon the situation in which they are placed, and consequently the traits of a leader vary according to the change in the situation. The work situation, or the kind of job he is doing, has an effect on the individual's personality or characteristic behavior.

Mason and Cleeton (12) discussing the measurement of executive ability pointed out that executive traits are not clearly defined by performance or tests of mental ability unless supplemented by temperament or personality tests, covering such questions as dominance, submissiveness, extraversion, and introversion, emotional sensitivity and placidity, etc.

Since man is not perfectly fitted for a job, because each has some strong points and some weak points, it is important to know the temperamental traits, personality characteristics, interests, and reasoning processes of each individual. Specifically, if a supervisor evaluates his superior's strong points and understands and tolerates his weaknesses, if the supervisor brings out his own good points and curbs certain aspects of his personality which might cause conflicts, and if the executive approaches his subordinates in the same way, then there might be mutual respect and understanding and better harmony in the organization (2).

According to Katz (9), effective administration depends on three basic skills. They are the technical skill to accomplish the mechanics of the particular job for which he is responsible, the human skill in working with others to be effective group member, and the conceptual skill to recognize the relationship of the various factors involved in the situation, which will lead him to take that action which achieves the maximum good for the total organization. The relative

importance of these skills vary with the level of administrative responsibility. At the lower level, technical and human skills are more important, and at the higher level human and conceptual skills are more important. Thus, it might be said that the administrative or leadership skills seem to change in their importance according to the industrial echelon. It follows that the situations are specific for each status.

A more recent study has been done in an effort to determine the relationship of biographical facts, mental ability, temperament, and personality traits to the importance and value of the individual in the industrial organization (14). This study demonstrated primarily the application of an instrument. A list of isolated factors were found to be characteristic of the top, middle, and lower thirds of the people divided according to their pay scale. This particular study limits itself to the criterion of pay and does not consider the relevance of the situation.

A study of job satisfaction was carried out on this same industrial population as used by Rashleigh. The study indicates that the degree of job satisfaction varies according to executive, supervisor, and work level status. The profiles of the various areas of job satisfaction show the supervisors experience the highest degree of satisfaction, the executives somewhat lower, and the workers the lowest degree of satisfaction. The assumption might be made that

these status levels of executive, supervisor, and worker represent different situations (6).

William Schell (16) completed a third study on the same population determining the relationship between the ability to empathize and job satisfaction. This study revealed that the supervisors empathize better than the executives and workers. The writer concludes that the more satisfied an individual is, the better he is able to empathize. This study seems to indicate an existence of a relationship between the ability to empathize and the situation. That is an assumption that the supervisors' work situation is different from the executives' and workers' situations.

The present study is of an exploratory nature to determine if in these three most recent studies there are some basic or general relationships among personality traits and individual characteristics, the different situations, the job satisfaction, and the ability to empathize.

CHAPTER II

PROCEDURE

Subjects

Thirty-seven subjects, all employees of a furniture manufacturing company, were used for this study. The number of subjects was limited due to the fact that this study is an investigation of the relationships of the three independent factors analyzed by Rashleigh, Cheek and Schell. This analysis has thirty-seven of their subjects in common. They consisted of eight executives, twelve supervisors, and seventeen workers.

Basic Data

The battery of standard tests given were: The Study of Values by Allport, Vernon, and Linzey; the Washburn Social Adjustment Inventory (thespic edition); Bernreuter Personality Inventory; The Kuder Preference Record; Wonderlic Personnel Test; How Supervise by File and Remmers; The Science Research Association Employee Inventory; and Bullock's version of Hoppock's Job Satisfaction Scale.

The Study of Values by Allport and Vernon measures generalized and dominant interests. It is based upon six types of values as classified by Spranger, which are theoretical,

economical aesthetic, social, political, and religious. According to this classification, the dominant interest of the theoretical man is discovery of truth; the economical man is interested in what is practical, useful, and efficient; the aesthetic man values most form and harmony; the highest value of the social type is love of people; the political man is interested primarily in being influential and persuasive; and the religious man places highest value on unity in an effort to comprehend the cosmos as a whole (1).

The purpose of the Washburn Social Adjustment Inventory is to determine the degree of social and emotional adjustment of an individual. The score is designed to give a separate measure of development in each of the six traits which are happiness, alienation, sympathy, purpose, impulsiveness, control, and wish. These traits are slightly correlated with intelligence and are highly correlated with social and emotional adjustment. Three of the traits are concerned with emotional adjustment to other people and to the environment. The other three are concerned with self organization and self regulation. (19)

The Bernreuter Personality Inventory is a questionnaire intended for use with adults. They are scored for six traits: neurotic tendency, self sufficiency, introversion-extraversion, dominance-submission, confidence, and sociability. Its principal value is an aid in identifying persons of questionable adjustment. (1)

The Kuder Preference Record includes 168 items each of which lists three activities. The subject indicates which he likes most and which least. The items cover a wide range of activities which are scored to yield a profile representing nine areas, namely, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical. The profile is analyzed with a view to determine in which, if any, areas the individual's interests and preferences are stronger. (1)

Wonderlic Personnel Test is a modification of Otis Intelligence Test. It is used in selection, placing and promoting employees. It is a short form of mental ability test designed for adult business employees in individual situations. (20)

How Supervise is a test of the typical inventory form and is designed to measure a person's "knowledge and insight concerning human relation in industry". It is used in selecting candidates for and measuring the results of supervisory training programs. (7)

The Science Research Association Employee Inventory consisting of 78 items, reflects the kind of things employees say about their jobs in a wide range of business and industrial situations. It is meaningful to employees in the office, production, sales, technical, and other types of work in most companies. The results are tabulated in a profile form so it becomes easy to determine the strong and weak points

of the individual or group, as well as compare one group with another. The items are grouped into categories. There are 15 categories, such as, job demands, working conditions, confidence in management, pay, employee benefits, supervisor-employee relations, friendliness and cooperation of fellow employees, technical competence of supervision, effectiveness of administration, adequacy of communication, security of job, and work relations, status and recognition, identification with the company, opportunities for growth and advancement, reactions to the inventory. (15)

Bullock's Job Satisfaction Scale was composed of ten items requiring evaluation by the employees of their organization. These items were a modification of Hoppock's scale. Five alternate responses were offered for each item. Arbitrarily arranged values of 1 to 5 were assigned; highest value showed satisfaction and lowest value showed lack of satisfaction. Bullock's scale was rephrased changing the personal pronoun so that an employee could answer the same questions for another person, i.e., supervisor and subordinates. (5)

Method of Analysis

The data were statistically analyzed for the three occupational levels (executives, supervisors, workers), in order to find out if any difference exists among these

occupational levels as regards their personality traits and interests, the degree of satisfaction in their jobs, their ability to empathize.

A second breakdown of the data was dividing the subjects into two groups according to the Science Research Association Inventory. One group was comprised of those who were most satisfied with their jobs and the other group was comprised of those who were least satisfied with their jobs. An analysis for a significance difference between the most satisfied and least satisfied group were done with respect to personality and interests tests, and ability to empathize.

The third breakdown of the data was grouping the subjects according to their ability to empathize. An analysis for a significance difference between those who were able to empathize and those who were less able to empathize were completed with respect to personality and interests tests, and job satisfaction.

In all cases a 't' test of significance was computed. A correlation coefficient test was done to find out if there is any relationship between How Supervise scores and empathy scores. A chi square was done between S.R.A. Inventory and the empathy scores, to determine whether those who are more satisfied in their jobs are the ones that can empathize better than those who are not satisfied in their jobs. Due to the small number of cases no cross validation could be done.

CHAPTER III

RESULTS AND DISCUSSIONS

The data were divided according to three occupational levels: executives, supervisors, and workers. The 't' test of significance was computed to determine the significances of the differences among the three levels on the test battery.

The Allport-Vernon's Study of Values showed no significance difference between these three groups. It might be due to the fact that this was a unique group limited to almost one culture. The employees were mostly of Dutch extraction living in a restricted community. The religious affiliation of over ninety percent of the employees was Dutch Reformed Church. It is possible that the basic value system was determined by the homogeneous characteristic of the group. When the executives, supervisors, and workers were divided into satisfied and dissatisfied groups, it was found that there was a trend that the more satisfied were more economically oriented, while the less satisfied were more theoretical oriented. This was found to be consistent in the different levels. (Table I)

In following the interpretation developed according to the norms of the Washburn Social Adjustment Inventory, the workers were found to be significantly more impulsive than the supervisors, who in turn were more impulsive than the executives. There seems to be a gradual decrease of impulsiveness

from the lower to the higher echelons. It might be that due to the quality of greater stability that the executives are in more responsible positions. These different adjustments of the worker and of the executive may depend upon their discrete situations. The supervisors were found to be more truthful than the workers. The truthfulness of the executives and supervisors were not significantly different. Hartshorn and May's (8) study pointed out that honesty is specific to the situation. Likewise, characteristics of the more responsible situation confronting the executives and supervisors may depend upon this greater degree of truthfulness. Impulsiveness and truthfulness are the only two factors of sufficient significance to discuss. (Table I)

Following the usual interpretation of the Bernreuter Personality Inventory, the executives were found to be more self sufficient. This finding is consistent with that of Richardson and Hanawalt (17) who in their research found that the leaders had a high score in self sufficiency in the Bernreuter Inventory. The workers also seem to prefer to be alone and ignore advice of others. The supervisors are the ones that least like to be alone and do not mind asking advice. This might be characteristic of supervisory situation between management and workers. The supervisors in the course of their duties have to determine from their superiors what are their jobs, and their performance schedule and company policies. Consistent with the fact that the executives

TABLE I
STATUS LEVELS*

Allport Vernon's Study of Values							
	T	E	A	S	P	R	
M1	40.25	43.5	30.5	36.12	36.50	50.12	
M2	36.6	45.5	32.5	36.75	38.08	50.92	
M3	39.1	46.2	31.2	33.60	38.5	50.5	
t1	0.25	0.7	1.2	0.14	0.9	0.15	
t2	0.047	1.2	0.42	0.35	1.1	0.15	
t3	0.2	0.2	0.8	0.4	0.6	0.17	

Washburn S-A Inventory							
	T	H	A	S	P	I	C
M1	4.57	1.62	10.05	11.75	33.5	1.37	5.75
M2	4.41	1.75	9.83	9.83	35.5	2.41	7.25
M3	9.1	1.76	9.8	15.6	36.0	3.6	6.6
t1	0.2	0.2	0.03	0.3	0.6	1.4	0.7
t2	1.2	0.6	0.14	0.75	0.5	1.7#	0.5
t3	1.8#	0.07	0.07	1.1	0.2	1.0	0.3

*Executive versus Supervisors versus Workers

Key: M1 = mean score of executives.
M2 = mean score of supervisors.
M3 = mean score of workers.
t1 = 't' ratio between M1 and M2
t2 = 't' ratio between M1 and M3
t3 = 't' ratio between M2 and M3

Significant at 5 percent level of confidence.

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and workers prefer to be left alone, they were found to be more introvertive than the supervisors who prefer to be with people.

The executives were found to be more domineering than the supervisors and workers. The greater responsibility inherent in their status situation would seem to demand this quality of self assertion in effective administration. Hunter and Jordan (17) found that leaders were more domineering than non-leaders. However, Jennings and Hanfmann (17) found that bossy domineering persons were rejected as leaders. This suggests that there are situations which call for a domineering leader, while other situations require a less domineering leader who allows the group to participate in deciding. Between the supervisors and workers, a trend was found that the workers were more domineering than the supervisors, though not significantly more. There is apparently a gradual increase in self confidence from the lower to the higher echelons. This may indicate that executives' behavior is affected by the situation. The tendency that the executives are more emotionally unstable than the supervisors and workers is the only result that does not seem to be consistent. (Table I Cont.)

The profiles of the composite results of the Kuder Preference Record for the executives, supervisors, and workers were made, showing the strong and weak points of each group. According to the results, the executives were found to be more scientific, more artistic, and more musical, as well as more

TABLE I (Cont.)

Bernreuter Personality Inventory						
	B1	B2	B3	B4	F1	F2
M1	61.81	61.37	60.74	52.25	42.0	69.39
M2	44.83	43.33	47.5	36.25	51.0	66.8
M3	47.9	50.2	52.4	39.0	54.5	67.0
t1	1.5	2.2**	1.3	1.8#	1.3	0.54
t2	1.5	1.1	0.83	2.7**	2.0**	0.47
t3	0.3	0.8	0.57	0.3	0.47	0.07
- - - - -						

Kuder Preference Record

	1	2	3	4	5	6	7	8	9
M1	46.12	28.25	38.12	40.5	25.6	18.0	13.6	41.7	42.2
M2	50.75	28.5	30.66	38.1	21.6	14.3	8.8	47.6	49.6
M3	49.5	26.1	35.7	39.0	22.6	13.0	10.2	45.0	40.6
t1	1.0	--	2.2**	0.43	1.6	1.0	1.5	1.2	1.2
t2	0.84	0.52	0.92	0.30	1.0	1.5	0.9	0.76	0.5
t3	0.24	0.55	1.5	0.23	0.3	0.6	0.5	0.65	1.6

Key: M1 = mean score of executives
M2 = mean score of supervisors
M3 = mean score of workers

t1 = 't' ratio between M1 and M2
t2 = 't' ratio between M1 and M3
t3 = 't' ratio between M2 and M3

= significant at 5 percent level of confidence
** = significant at 2 percent level of confidence

literary. The supervisors were less scientific than both the executive and worker group. The supervisors were less artistic and less interested in music than the other two groups. They were more literary than the workers but less literary than the executives. There is a gradual decrease of this literary interest from high to low status levels. (Table I Cont.) It is seemingly a direct demand of the executive situation that the literary interest and application (report writing and current reading) is the greatest. It seems that the executives and workers have some similar interests, in being less practical and so preferring more abstract interest. On the other hand, the supervisors are more practical and are concerned with people and so are less interested in abstract things. The supervisor had more clerical interests than the executives and workers, showing that they may be more methodical and practical in their outlook. All these findings seem to be related functionally to the respective situations in which the executives, supervisors, and workers are operating.

Wonderlic Personnel test of mental alertness showed a gradual decrease from the higher to the lower echelons. (Table I Cont.) The executives were more intelligent and had a greater mental alertness than the supervisors and workers. The leader seems to have a little more knowledge than the group, and more mental ability to be a step ahead of the group and meet the problems that face them (2).

TABLE I (Cont.)

	How Supervise	Wonderlic Personnel	S.R.A. Inventory	Bullock's Empathy score
M1	54.5	29.7	62.1	29.1
M2	43.5	23.0	66.8	27.5
M3	41.8	20.0	53.7	37.5
t1	4.4'	2.1**	0.98	0.6
t2	3.2'	2.8'	1.3	2.1**
t3	0.42	0.75	2.6"	2.9'

Key: M1 = mean score of executives
M2 = mean score of supervisors
M3 = mean score of workers

t1 = 't' ratio between M1 and M2
t2 = 't' ratio between M1 and M3
t3 = 't' ratio between M2 and M3

** = significant at 2 percent level of confidence
" = significant at 1 percent level of confidence
! = significant at 0.5 percent level of confidence

The results of the How Supervise test showed that the executives have more theoretical knowledge of supervision than the supervisors and workers. There is a decrease of this knowledge from the higher to the lower occupational levels. (Table I Cont.) Since the executives are in a position where they have to inspect, evaluate the performance of their workers, they tend to have a better knowledge of the method and procedure of successful supervision. Malony's (11) research concludes that How Supervise needs a high school reading ability, so that for the lower level of occupations it is of doubtful validity as a measure of supervisory ability. Wickert (21) was of the same opinion and pointed out that for lower levels it measures intelligence and readability rather than knowledge of principles of supervision. It is only for the higher levels that it measures supervisory ability.

The executives, supervisors, and workers were compared for their satisfaction in their jobs according to the Science Research Association Inventory. It was found that the supervisors were most satisfied in their jobs, and the workers were least satisfied in their jobs. The executives were less satisfied than the supervisors but more than the workers. (Table I Cont.) Thompson (18) discusses the many causes of dissatisfaction, such as, lack of security, unfair pay differentials between various grades of workers, a foreman doing things he should not do and not doing things he should do,

Workers want security, independence in their jobs, social approval and recognition, etc. When they do not get them, they become frustrated and thus dissatisfied for which they blame their superiors. It was found that fair treatment by superiors is placed towards the top of the list of the factors influencing the worker's liking for his job. Personality factors also have an effect on the liking for the jobs. Consequently the causes of satisfaction and dissatisfaction are both individual factors and the industrial environment of the worker. To some extent the executives tend to be more like the workers, in that having all the responsibility of the organization, in production, in competing with other firms, their tensions and frustrations may result in dissatisfaction in their jobs.

According to Ash (4) the differences in employee morale are not determined by the personal characteristics of employees, but are primarily a reflection of the real differences in the jobs and work situations. He says that those who were high in such items as dominance, emotional stability, sociability have a favorable attitude towards their jobs. They have higher confidence in management, when they have security in their jobs and when they are given proper recognition for their achievement. It was found that the more outgoing, sociable, emotionally stable employee was more likely to regard the world around him with greater favor than the retiring, not too sociable, perhaps somewhat unstable employee.

The Empathy Test scores showed that the supervisors can empathize better than the executives and workers; the workers were lowest in empathy scores. (Table I Cont.) Since the supervisors are in closer contact with their employees and know more about their performance and their habits and behaviors, they tend to understand them better. The supervisors are the middle men. They have to report the workers' performance to the executives and communicate to the workers management's point of view, policies, and decisions. Because the supervisors want security and progress in their jobs they try to satisfy both management and workers by studying both groups more closely. Arther (3) discussing the foreman's place in management, said that the foreman occupies a unique place in every management structure. He is the only part of the management who can build the organization of rank and file people. He alone can obtain the degree of cooperation necessary for maximum production. The foreman knows that this requires the use of social skills rather than mass handling of people, so that in this connection he knows the employees intimately enough to deal with on a personal basis. Also, as many of the supervisors and foremen have started as a rank and file worker, they know about their employees and can understand them better. Neagle's (13) research pointed out that supervisors were more sensitive to employee attitude than the non-supervisors. This seems consistent with Gage's statement "the better you understand people, the better you

can get along with them". Neagle concludes that if sensitivity to people's attitude does make for better leadership, then psychologists should consider training and selection programs based on the concept of sensitivity.

The workers were less able to empathize with their supervisors. This may be because they either did not like their supervisors and so rated them low, or considered them to be better than they were and so rated them high. This seems to be related to the satisfaction profiles, in that the workers being least satisfied were more self centered and did not understand others as well; while the supervisors being more satisfied in their jobs were interested and understood others that were around them. The difference between the supervisors and executives was not statistically significant. The results showed that the status level of executives, supervisors, and workers are related not only to personality factors, but also to their satisfaction in their jobs and their ability to empathize.

A second analysis of the data was done to determine if there is a relationship between degrees of satisfaction as shown by S.R.A. inventory and the personality factors and interests and the ability to empathize. The subjects were divided into the most satisfied and least satisfied group. The Allport Vernon's Study of Values test showed that the satisfied group was less theoretical, less aesthetic, more

economically and more politically oriented than the less satisfied group. (Table II). Referring back to the executive, supervisor, and worker groups it was found that there were no statistically significant differences between the three groups. When each group was subdivided into most satisfied and least satisfied groups, it was found that in the executive, supervisor, and worker levels the most satisfied were consistent in being more economical and less theoretical than the least satisfied group.

The Washburn Inventory pointed out that those who were less satisfied have a tendency to be alienated from the group and are more impulsive in their judgment than the more satisfied group. It might be said then that impulsiveness and tendency to alienate is a trait of less satisfied individuals. (Table II).

According to the interpretation of the Bernreuter Inventory the less satisfied group was found to be emotionally unstable and preferred to be alone. (Table II Cont.)

The Kuder Preference Record showed that those who were less satisfied were more artistic. The more satisfied group was more literary than the less satisfied group. (Table II Cont.) Since the more satisfied group is more sociable and is interested in the outside world, these people might be more interested in reading.

The Wonderlic Personnel test and How Supervise did not show any statistically significant differences between the more satisfied and less satisfied groups. (Table II Cont.)

TABLE II
SATISFACTION LEVELS*

Allport Vernon's Study of Values

	T	E	A	S	P	R
M1	40.3	42.1	34.06	34.8	34.5	51.3
M2	37.4	47.0	31.09	35.18	39.1	49.8
t	1.3	2.1**	1.8#	0.11	1.4	0.6

Washburn S A Inventory

	T	H	A	S	P	I	C
M1	5.5	1.2	12.0	16.4	34.8	3.8	5.8
M2	8.3	2.0	8.5	14.6	34.6	3.04	7.3
t	1.3	1.05	1.6	0.84	0.07	1.5	1.0

Bernreuter Personality Inventory

	B1	B2	B3	B4	F1	F2
M1	47.0	56.06	40.8	39.6	50.6	65.6
M2	52.2	42.5	42.5	41.9	49.7	66.0
t	0.48	1.5	0.15	0.28	0.25	0.3

* More satisfied group versus less satisfied group

Key: M1 = mean score of less satisfied group
M2 = mean score of more satisfied group

t = 't' ratio between M1 and M2

= significant at 5 percent level of confidence
** = significant at 2 percent level of confidence

TABLE II (Cont.)

Kuder Preference Record									
	1	2	3	4	5	6	7	8	9
M1	48.7	27.7	38.3	38.6	25.8	12.8	11.1	45.9	35.0
M2	48.6	22.0	37.0	39.3	21.8	15.09	9.9	41.2	38.2
t	0.02	0.71	0.12	0.29	2.35**	1.02	0.49	0.89	0.61

	How Supervise	Wonderlic Personnel Test
M1	44.3	24.1
M2	44.9	22.8
t	0.12	0.5

chi square between Satisfaction score and Empathy score

$\chi^2 = 11.1$, significant at 0.1 percent level of confidence

Key: M1 = mean score of less satisfied group
M2 = mean score of more satisfied group

t = 't' ratio between M1 and M2

** = significant at 2 percent level of confidence

However, because these more or less satisfied groups are formed of the three occupational levels, they may have some counter-balancing effect and thus show no difference as respective groups. It is possible that the degree of satisfaction has little relationship to mental ability as determined by Wonderlic.

A chi square was computed between the satisfaction scores and empathy scores. It was found that those who were more satisfied were better able to empathize. (Table II Cont.) This might be explained by referring to the status groups. Where it was found that the supervisors and executives were better able to empathize than the workers, as well as that they were also more satisfied than the workers.

The third analysis was to determine the relationship between the ability to empathize scale and the personality characteristics and interests. The Allport Vernon's Study of Values showed that those who could empathize well were less theoretical and more economical. (Table III)

The Washburn Social Adjustment Inventory pointed out that those who were high in empathy scale made better adjustment both emotionally and socially. They were more happy, had more self control, and a greater ability to execute plans. (Table III)

The Bernreuter Inventory showed that the group that could empathize better were more domineering. (Table III Cont.) This

TABLE III
EMPATHY LEVELS*

Allport Vernon's Study of Values							
	T	E	A	S	P	R	
M1	38.09	46.5	32.22	34.3	37.1	49.0	
M2	39.5	43.5	32.2	43.2	35.4	50.9	
t	1.8#	1.4	0.01	0.03	1.0	1.1	
Washburn S A Inventory							
	T	H	A	S	P	I	C
M1	7.54	1.18	10.6	13.8	33.4	3.2	5.1
M2	6.13	2.6	9.06	18.4	36.6	3.4	8.1
t	0.52	2.0**	0.47	2.3**	0.94	0.5	1.7#
Bernreuter Personality Inventory							
	B1	B2	B3	B4	F1	F2	
M1	58.1	53.3	58.8	47.09	44.8	57.2	
M2	39.4	49.2	43.8	32.0	51.4	63.1	
t	2.0**	0.5	2.7**	1.8#	1.1	0.95	

* Empathetic group versus non-empathetic group

Key: M1 = mean score of high empathetic group
M2 = mean score of low empathetic group
t = 't' ratio between M1 and M2

= significant at 5 percent level of confidence
** = significant at 2 percent level of confidence

shows a similarity with Allport's Study of Values, where the better empathizing group was found to have political interest. This may be a reason for their being able to execute plans better than those who could not empathize as well. According to the analysis it was found that those who can empathize well were less emotionally stable and introvertive. This is somewhat contradictory to the findings of the Washburn Social Adjustment Inventory. It might be to the small number of cases in each group that has caused such a discrepancy.

The Kuder Preference Record pointed out that those who were less able to empathize were more scientific, musical, and clerical, while those high in empathy had literary interests. (Table III Cont.)

The Wonderlic Personnel Inventory did not show any statistically significant difference between the two groups. (Table III Cont.)

A correlation coefficient was computed between the How Supervise scores and the Empathy scores. There was a negative relationship, which was not statistically significant. (Table III Cont.) The knowledge of how to supervise may not necessarily effect the ability to empathize. One can know what to do in a specific situation and yet not behave in the approved pattern because of his own emotional or personality tendencies. There is no assurance that understanding goes with knowledge. According to Laird (10) empathy is an intellectual process.

TABLE III (Cont.)

Kuder Preference Record									
	1	2	3	4	5	6	7	8	9
M1	49.7	27.2	32.5	40.0	23.0	16.6	13.8	33.5	5.1
M2	46.4	30.6	37.4	37.4	23.3	12.3	18.4	36.6	8.1
t	0.8	0.81	1.96#	0.7	0.14	2.0**	2.3**	0.94	1.7#

	How Supervise	Wonderlic Personnel Test
M1	46.4	24.09
M2	44.06	22.5
t	0.58	0.51

Correlation between empathy scores and How Supervise scores

$r = -0.11$

Key: M1 = mean scores of high empathy group
M2 = mean score of low empathy group

t = 't' ratio between M1 and M2

= significant at 5 percent level of confidence

** = significant at 2 percent level of confidence

It makes possible for one person to recognize impartially the significance of another person's behavior. Empathy helps to find out what is behind grievances and low morale. It helps to know about the desires, wishes, and impulses of the workers.

Since no cross validation could be done due to the small number of cases and because of the exploratory nature of the study these results could not be validated.

CHAPTER IV

SUMMARY AND CONCLUSION

An exploratory study was done to determine the relationship among different occupational levels, of personality traits and interests, job satisfaction, and ability to empathize.

Thirty-seven employees of a furniture company were given the following battery of tests: Allport Vernon's Study of Values, Washburn Social Adjustment Inventory, Bernreuter Personality Inventory, Kuder Preference Record, Wonderlic Personnel Inventory, How Supervise, Science Research Association Employee Inventory, and Bullock's version of Hoppock's Job Satisfaction Scale. The data were analyzed and 't' tests done.

The results showed

a) According to the Washburn S-A Inventory, the workers were highest and the executives were lowest in impulsiveness. The Bernreuter Inventory pointed out that the executives and workers preferred to be alone and did not ask for advice, while the supervisors did not prefer to be alone and were more extravertive than the other two groups. The executives were found to be more domineering than the supervisors and workers. There was a gradual decrease in self confidence from the high to the low echelons. According to the Kuder Preference Record, the executives and workers were more artistic, musical, and scientific than the supervisors who had more clerical interests.

There was a gradual decrease in literary interest from the high to low status levels.

The Wonderlic Personnel Inventory showed a gradual decrease in mental ability from the high to the low echelons. The How Supervise also pointed out a gradual decrease in the knowledge of supervision from the high to the low status levels.

According to the S.R.A. Inventory, the profiles of the executives, supervisors, and workers were similar in shape but different in location. The result indicated that the supervisors were most satisfied in their jobs, while the workers were least satisfied in their jobs. The executives were more satisfied in their jobs than the workers but less satisfied than the supervisors.

The Empathy Test scores revealed that the supervisors had the highest ability to empathize and the workers had the least ability to empathize. The executives had more ability to empathize than the workers but less than the supervisors.

b) When the data were analyzed according to the S. R. A. Inventory into more satisfied and less satisfied groups, it was found that the more satisfied group was economically oriented and politically interested; while the less satisfied group was high in theoretical and aesthetic values. The Washburn Inventory pointed out that those who were less satisfied had a tendency to alienate themselves from the group,

and they were more impulsive in their judgment than the more satisfied group. According to the Bernreuter Inventory, the less satisfied group was emotionally unstable and preferred to be alone. The Kuder Preference Record showed that the less satisfied group was artistic, while the more satisfied group was literary.

Wonderlic and How Supervise did not show any statistically significant differences between the two groups. The chi square results pointed out that those who were more satisfied were also better able to empathize than those who were less satisfied.

c) According to the Empathy Scale division of the data, the Allport Vernon's Study of Values showed that those who could empathize better were less theoretical and more economical than those who could not empathize well. Washburn Social Adjustment Inventory pointed out that those high in the empathy scale were better adjusted both emotionally and socially. They had more self control and better ability to execute plans. According to the Bernreuter Inventory, those who empathize better were more domineering than the other group. Kuder Preference Record pointed out that the low empathy group was scientific, musical and clerical, while the high empathy group had literary interests. Wonderlic Personnel Test did not show any statistically significant differences between the two groups. The coefficient of correlation between the How Supervise and Empathy scores gave a negative relationship which was not statistically significant.

In conclusion, according to these results the executives were more domineering and less impulsive than the supervisors and workers. They had more self confidence and greater mental ability, also more theoretical knowledge of supervision. There is a gradual decrease of these characteristics from the higher to the lower status levels. The executives and supervisors were more satisfied than the workers. They were better able to empathize than the workers.

The demand of the situations of the executives and supervisors are similar and so may provide similar degree of satisfaction in their jobs. These more satisfied people are less theoretical, more economically and politically oriented and therefore may tend to look at the job situation more realistically and expect satisfaction within this materialistic framework. It might also be true that the executives and supervisors being more informed of the facts, policies, and of the operations are found to be more realistic. On the other hand, the less satisfied people were aesthetic and theoretical and therefore possibly more unrealistic in their expectancy of satisfaction in their work situation.

The executives and supervisors are more aware of the whole situation and have a greater awareness of the responsibility for the entire operation and for the people who will accomplish it. Because of this vantage position and comprehensive responsibility, both the executives and the supervisors

tended to show a greater ability to empathize than the workers. Furthermore those people who were more satisfied in their jobs were better able to empathize. It is possible that those people who are more satisfied in their jobs are in a frame of mind to take into consideration the problems and feelings of others. However, those people who are less satisfied in their jobs find less ability and willingness to concern themselves with the problems or situations of others.

This study suggests some factors which might be of value in an industrial organization.. If the workers have a complete knowledge of the policies and problems of the industrial organization, they might be more realistic in their situation and as a result they might be more satisfied. Since people who are primarily economically and politically oriented seemed to be more satisfied, it might be worth while to orient the employee to these aspects of their work situation. If the workers can be made more satisfied, they might be able to empathize better and understand the problems and situations of their supervisors and executives as well as their fellow workers. It might be of value in the industrial organization to know if there is any relationship between these personality and interest characteristics, degree of satisfaction and ability to empathize and their respective group production performances.

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