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AN ANALYSIS OF THE RELATIONSHIP BETWEEN THE
DUAL-FACTOR THEORY OF MOTIVATION AND THE
CENTRAL LIFE INTERESTS OF EMPLOYEES

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AN ANALYSIS OF THE RELATIONSHIP BETWEEN THE
DUAL-FACTOR THEORY OF MOTIVATION AND THE
CENTRAL LIFE INTERESTS OF EMPLOYEES

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CHAPTER I

INTRODUCTION

The United States has witnessed a long-run trend toward increasing industrialization. As one author states:

from the self-reliant pioneer we have grown to sophisticated citizens almost completely dependent for survival on a complicated mesh of organizational activity. This change in structure was the direct result of the steady, persistent effort of men to achieve a rational mastery over their environment.¹

The large publicly-owned industrial organization has emerged in the United States with a resultant effect on the population's work practices. For many individuals work is synonymous with employment by an industrial organization. The character of work has also changed. Concomitant with the growth of industrial organizations has been a trend of increased division of labor and specialization of the labor force.

¹Joseph Fitzpatrick, "Individualism in American Industry," in Values in America, ed. by Donald N. Barrett (Notre Dame, Indiana: University of Notre Dame Press, 1961), pp. 107-108.

The impact of industrialization on human behavior has been the substance of much conjecture, theorization, and research in the social sciences. The answers to two distinct but related questions have been sought to gauge the individual's reaction to this increasing industrialization.

1. What do people want from their jobs?
2. What is the meaning of work for the individual?

Professors Dubin and Herzberg, independently, have provided answers to these two questions. The present research centers around the work of these two men. More specifically, this study is based upon three research problems. The first of these is a replication of Herzberg's work on the motivation of employees.² Whereas Herzberg utilized the "storytelling" method to ascertain what employees want from their job, Friedlander employed a questionnaire; in this replication the Friedlander questionnaire is used to elicit and record the employees' views. The second problem is a replication of Dubin's work concerning the meaning of work for individuals in terms of their central life interests.³ But whereas Dubin focused his

²Frederick Herzberg, B. Mausner, and B. Snyderman, The Motivation to Work (New York: John Wiley and Sons, 1959).

³Robert Dubin, "Industrial Workers World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, Vol. 3 (January, 1956), pp. 131-142.

attention on industrial workers this study of central life interest has as its focus managerial and professional employees. The third and final problem of this study is an attempt to ascertain if a relationship exists between central life interest and what motivates employees.

Definitions of Terms

Throughout this study certain words or phrases are used repeatedly. For continuity of meaning, the following definitions are presented.

Motivators: Those job factors, intrinsic to the job, which are found in the job content: recognition, achievement, responsibility, challenging assignments, and the opportunity for growth.

Hygiene factors: Those job factors, extrinsic to the job, which are found in the job context: working conditions, employee benefits, and relations with co-workers.

Central Life Interest (CLI): The expressed preference for a given locale or situation in carrying out an activity.⁴

Job-oriented employee: An individual who centers his life on the job. He views the job as an end in itself.

Non-job-oriented employee: An individual who centers his life off the job. He views the job as a means to an end.

Employees studied: This phrase is used to mean the total view of the first line managers, middle managers, and professional employees included in the present study.

⁴Ibid., p. 134.

Organizational position--refers to one of the three categories of employees studied: first-line managers, middle managers, professional employees.

When these words or phrases are used in this research project these definitions shall apply unless noted. The evolution of the three research problems dealt with in the current study is now considered.

The problem of employee motivation emerges from the fact that in the management literature there are at least two competing theories of motivation. Both theories stress an understanding of what the employee wants from his job. Once these job related factors are identified, however, the two theories differ in the theorized effect an addition or deletion of these job factors will have on employee satisfaction or dissatisfaction. One position views:

satisfaction and dissatisfaction to be the extremes of a continuum having a neutral condition in which the individual is neither satisfied nor dissatisfied as its midpoint. Generally, this analysis assumes the individual shifts along this continuum in response to changes in numerous factors, some of which are intrinsic to their job, while others make up the environment in which they are performed.⁵

These theories have been labeled the single continuum theories of motivation.

⁵Orlando Behling, George Labovitz, and Richard Kosmo, "The Herzberg Controversy: A Critical Reappraisal," Academy of Management Journal, Vol. II (March, 1968), p. 99.

A different theory of motivation, based upon the work of Professor Herzberg,⁶ is that there are two groups of independent job factors: hygiene factors, which create job dissatisfaction by their absence and no job dissatisfaction by their presence; and motivators, which create job satisfaction by their presence and no job satisfaction by their absence. Job satisfaction and job dissatisfaction are not opposite ends of the same continuum, but instead represent two distinct continua, hence the dual continuum label attached to this theory. High satisfaction is not brought about by the absence of job factors that cause dissatisfaction as the single continuum theories profess. In summary, motivation is not to be explained by the hygiene factors which are extrinsic to the job, as other researchers had theorized; rather, motivation is based on factors which are intrinsic to the job and which satisfy the person's need for self-actualization in his work.

The dual continuum theory has been subject to widespread criticism and denial.⁷ The two main criticisms relate to Herzberg's methodology. First, the critics report it to be methodology bound, i.e., similar results can be obtained only if Herzberg's methodology is duplicated.

⁶Herzberg, op. cit.

⁷For a summary of these criticisms see House and Wigdor (1967), Whitsett and Winslo (1967), Graen and Hulin (1968), and Behling, Labovitz, and Kosmo (1968).

They believe that in order to test Herzberg's theory adequately other methods are required.

Secondly, the coding of the responses is not determined by the rating system and the data, but requires, in addition, interpretation by the rater. A more objective approach, to minimize the possibility of learning more about the perceptions of raters than those of interviewees, would be to have the respondents do the rating and perform the necessary evaluation.⁸

To bridge these two criticisms, a student of Herzberg's, Professor Friedlander, constructed two questionnaires to measure the same problems Herzberg measured.⁹ Friedlander has thus provided:

- a. a different methodology, based on Herzberg's job factors,
- b. a structured questionnaire whereby the respondent would do all the rating, thus alleviating interviewer contamination.

The Friedlander questionnaire was employed in the present study to provide information as to the validity of Herzberg's theory without falling into the methodological traps that some of Herzberg's critics have pointed out as inherent in his methodology.

⁸George B. Graen, "Motivator and Hygiene Dimensions for Research and Development Engineers," Journal of Applied Psychology, 1966, Vol. 50, No. 6, p. 563.

⁹Frank Friedlander, "Job Characteristics as Satisfiers and Dissatisfiers," Journal of Applied Psychology, 1964, Vol. 48, No. 6, pp. 388-392.

The problem of central life interest evolved from the historical assumption that work has long been considered a central life interest for adults in most societies and certainly in the Western world. In 1955, Dubin conducted a study to test the central life interests of industrial workers. The CLI questionnaire was formulated to determine if the job and workplace were central life interests of industrial employees. The CLI questionnaire also elicited the attitudes of industrial workers toward four segments of their environment: informal relations, general relations, formal organizational relations, and technological relations.

Dubin concluded from his study that:

for almost three out of every four industrial workers studied, work and the workplace are not central life interests. . . . industrial man seems to perceive his life history as having its center outside of work for his intimate human relations and for his feeling of enjoyment, happiness, and worth.¹⁰

Other researchers, who have utilized the CLI questionnaire with varied occupational classifications of employees, have concurred with these findings. In the current study the CLI questionnaire was administered to a sample of managerial and professional employees to provide some information concerning the meaning they attached to their work as well as to examine the generalizations made by Dubin.

¹⁰Ibid., pp. 131 and 140.

The final problem derives from the preceding two problems. This problem focuses attention on the relationship between central life interest and what motivates employees; the problem emerges from an apparent conflict between the conclusions of Dubin and Herzberg.

An analysis of each of their studies reveals conflicting answers to the two questions posed earlier: What is the meaning of work? and What do employees want from their jobs? Their answers are presented in abbreviated form to illustrate this conflict.

1. What is the meaning of work for the individual?
 - a. Dubin does not answer the question directly. He states that for a majority of industrial workers, work is not a central life interest. Work is viewed as a means to an end, not an end in itself. Employment provides workers the wherewithal to pursue those activities which are central to their lives.
 - b. Herzberg: Work is an end in itself. The worker spends most of his time in work and expects to find actualization in this activity.
2. What do people want from their jobs?
 - a. Herzberg: the conditions whereby the individual can achieve self-actualization. These conditions are intrinsic to the job and serve as motivating factors.
 - b. Dubin: an adequate "payoff" to pursue their off-the-job activities. They adapt to present working conditions and seek self-actualization off the job.

Dubin believes that work is of secondary importance to the majority of industrial workers. Herzberg believes that work is of primary importance to all workers. The

logical question which arises from these conflicting views is: Can the intrinsic values of work be a motivator if work is no longer the central life interest of the worker? As Dubin states: "In short, if you really do not care about something, then your actions in relation to it are not really important to you."¹¹ Herzberg concludes that certain job factors lead to motivation in the organization, while other job factors have no effects on motivation, regardless of how the individual feels about the job situation. The implicit assumption is that all employees seek to fulfill higher order psychological needs on the job. If Dubin's theory is correct, this assumption would apply to only a small minority of employees who center their lives on the job.

Dubin feels that:

before we can use concepts of individual freedom, self-realization, satisfaction, and gratification for the person, we have to ask what is his relationship to the specific social setting from which they are derived.¹²

By analyzing the centrality of work, for the worker, one measure of this relationship to a social setting, work, can be derived. The job factors that motivate managerial and professional employees may be dependent upon the central

¹¹Robert Dubin, Human Relations in Administration with Readings, 3rd edition (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1968), p. 89.

¹²Ibid., p. 91.

life interest of these employees. The responses of managerial and professional employees to Dubin's CLI questionnaire and to Friedlander's questionnaires were analyzed in concert in this present research to focus attention on this relationship.

Information concerning these three research problems was obtained and analyzed using the following research plan.

Research Plan

It is assumed that as organizational positions are traversed the individual's job expectations, responsibility, training time, career patterns, and social background differ. In this study the responses of personnel in three main job classifications, first-line managers, middle managers, and professional employees were examined to analyze the three research problems previously mentioned.

To accomplish the objective of this study, the following questions need to be answered.

1. Are motivators and hygiene factors two independent groups of factors?
2. Are these groups of job factors the same, regardless of organizational position?
3. Does the proportion of job-oriented and non-job-oriented employees vary with organizational position?
4. What is the relationship between central life interest, motivators, and organizational position?

- a. Does the central life interest of the respondent affect the job factors which are of prime importance in leading to feelings of satisfaction?
- b. Does this relationship change when organizational position is examined?
- c. Does the central life interest of the respondent affect the job factors which are of prime importance in leading to feelings of dissatisfaction?
- d. Does this relationship change when organizational position is examined?

Hypotheses

In order to provide answers to these questions and achieve the objective of this study, the following testable hypotheses have been formulated. These hypotheses are related to the three problems studied. The hypotheses that deal with Herzberg and Dubin's theories are stated in essentially the same form as those appearing in their respective studies.

Hypotheses relating to Herzberg's theory:

- 1. Motivators are primarily related to feelings of satisfaction, regardless of organization position.
- 2. Hygiene factors are primarily related to feelings of dissatisfaction, regardless of organization position.
- 3. Most of the job factors are significantly related to both the satisfying and dissatisfying situations.

Hypotheses relating to Dubin's theory:

- 4. A significant proportion of employees surveyed will rate non-job interests high in their value

orientation on the CLI questionnaire, regardless of organization position.

5. A significant proportion of the employees surveyed will be non-job-oriented with respect specifically to informal group experiences, when measured on the relevant portion of the CLI questionnaire, regardless of organization position.
6. A significant proportion of the employees surveyed will not respond to work as a valued social experience when tested by the general experience section of the CLI questionnaire, regardless of organization position.
7. A significant proportion of the employees surveyed will score job-oriented for their organizational experiences when measured on the organization section of the CLI questionnaire, regardless of organization position.
8. A significant proportion of the employees surveyed will be job-oriented for their experiences with technological aspects of their environment when measured on the technological section of the CLI questionnaire, regardless of organization position.

Hypotheses formulated to examine the relationship between the central life interest of the employees surveyed and the motivation-hygiene, dual continuum theory.

9. Motivators are primarily related to feelings of satisfaction for the job-oriented employees surveyed, regardless of organization position.
10. Hygiene factors are primarily related to feelings of satisfaction for the non-job-oriented employees surveyed, regardless of organization position.
11. Motivators are primarily related to feelings of dissatisfaction for the job-oriented employees surveyed, regardless of organization position.
12. Hygiene factors are primarily related to feelings of dissatisfaction for the non-job-oriented employees surveyed, regardless of organization position.

13. For the job-oriented employees, most of the job factors are significantly related to both the satisfying and the dissatisfying situation, regardless of organization position.
14. For the non-job-oriented employees, most of the job factors are significantly related to both the satisfying and the dissatisfying situations, regardless of organization position.

Sample

A large manufacturing firm whose main office is located in a small Southwestern town agreed to participate in the proposed study. The cooperation of top management was gained during an initial meeting when a brief outline of the study was presented.

Three organizational positions were studied within this organization: first-line managers, middle managers, and professional employees. The following definitions, formulated with a representative of the firm, were constructed to obtain a list of employees for each of these three positions.

First-line manager: A man in the manufacturing operations at (city) who qualifies as supervisor in the Taft-Hartley Act definition and NLRB interpretation thereof.

Do not include any man who is a managerial trainee and is therefore occupying a first-line managerial position for a limited time as a preparation for assignment to middle management ranks.

Middle manager: A man located in (city) will be placed in this category if he meets either of the following criteria:

1. Direct and control the work of one or more first-line managers.

2. Spend at least 80 percent of his time planning, organizing, directing, controlling the work of others (Note: Exempt as an executive or administrative person under the FLSA, but one who spends 80 percent of his time engaged in the activities which are the basis for his exemption).

A middle manager is to be distinguished from a professional on the basis of whether the great bulk of his time is devoted to activities which require his specialized and technical expertise.

Professional employee: A man located in (city) will be placed in this category if he meets any one of the following criteria:

1. A high level of educational background, training, and proficiency in a specific recognized discipline. The minimum educational requirement of four years of college training is a specific discipline.
2. A member of a recognized professional association and conforms to the technical and professional standards of his profession.
3. His major purpose is the performance of activities in the areas of his specific training, 80 percent (or more) of his time should be spent working within this specialized area. Managerial activities are not to exceed 20 percent of his time, with these managerial activities being concerned with the supervision of employees working on a specific project that he is working on. The number of these people may fluctuate as he changes from project to project.
4. His work can be typified by freedom from direct supervision. His judgement and decisions are recognized as superior in his area of expertise and proficiency.

These definitions were further refined by the addition of company pay grade ranges within which each category of the first line manager, middle manager, or professional employee would fall.

The managers who attended the initial orientation meeting were given these definitions and asked to identify

employees in their departments who conformed to these definitions. In order to keep the groups as internally homogeneous as possible, the largest departments were selected as the source of employee-respondents. Managers of those departments were instructed to select only those male employees in their departments which met these criteria. (The number of females at each of the three organization positions were so few that it was decided to exclude them from this study.) If there was any question as to the eligibility of an employee he was not to be included in the list.

Two hundred employees' names from each of the three organizational positions were collated by a representative from the personnel department and then forwarded to the author of this dissertation.

The 400 men who constituted the middle managers and professional employees were all from the main office of this firm; the 200 first-line managers were all from the manufacturing field operations of the firm.

These managers who supplied the names of employees in their departments, were presented with a group of questionnaire packages. Each package was a sealed envelope, personally addressed to one of the selected employees in that department. Each envelope contained a letter of introduction explaining the purpose of the study, guaranteeing individual anonymity, and urging his cooperation;

a CLI questionnaire; the two-part Friedlander questionnaire; and a stamped, addressed envelope for the return of the completed questionnaires. The manager distributed the sealed envelopes to the employees. The employees were urged to cooperate in the study by completing and returning the questionnaire as soon as possible. Three to four days after the receipt of the questionnaire, each employee received a follow-up postal card, personally addressed, urging him to complete and return the questionnaire. (See Appendix I for the introductory letter, questionnaire, and follow-up postal card.) The overall response of the employees was 86.3 per cent. The response rate for each type of employee is shown in Table 1.

To gain a better picture of the type of employee who was responding at each organization position, three questions were included in the questionnaire: age, length of time employed by the present company, and length of time in present position.

The average age of first-line manager respondents was fifty; their service with the company averaged twenty-four years and they had been first-line managers an average of fifteen years.

The average age of middle managers responding was fifty-one, having been with this company an average of twenty-five years and middle managers for an average of thirteen years.

TABLE 1

NUMBER OF USEABLE RESPONSES AND RESPONSE RATE BY EMPLOYEE CLASSIFICATION. RESPONSE RATE IS COMPUTED ON A RATE OF 200 POSSIBLE RESPONSES

Type of Employee	Number Responding	Response Rate
First-Line managers	155	77.5%
Middle managers	182	91.0
Professional employees	<u>181</u>	<u>90.5</u>
Total	518	86.3%

The average age of professional employees responding was forty-three having been with the present company an average of sixteen years, and working for this company in the professional capacity for which they were trained an average of fifteen years.

The responses of these employees to Dubin's revised CLI questionnaire and Friedlander's two-part questionnaire were analyzed to provide the information necessary to test the aforementioned hypotheses.

Data Analysis

The data were analyzed by four standard statistical techniques: Chi-square, analysis of variance, t test, and Pearson Product moment correlation.

Friedlander's questionnaire has 18 factors in each of two parts: one part relating to a satisfying situation,

one part to a dissatisfying situation. First-line manager responses were subjected to an analysis of variance to determine whether they attributed a significantly different importance to these 18 factors as contributors to a satisfying situation. Where a significant difference was found, the factors were ordered by their mean scores to show which factors were most important. The first-line managers' responses to the dissatisfying situation were treated in a similar fashion. Likewise, the responses of the middle managers' and professional employees were analyzed. These results indicate the generality of Herzberg's motivation-hygiene theory for these managerial and professional employees.

By subjecting the difference between the mean satisfying score on a factor and the mean dissatisfying score of the same factor to a t test, one could determine whether that factor was significantly more important in causing either situation. This test was made for the mean scores of each factor computer from the responses of the three organization positions. In addition a Pearson product moment correlation coefficient for each separate job factor was computed to determine whether that factor was significantly related to both the satisfying and dissatisfying situation. This test of significance was made for each factor from the responses of the three organization positions. Inferences were then drawn concerning Herzberg's

dual continuum theory.

The CLI results were analyzed, first, by use of the Chi-square technique. Inferences were drawn from the sample tested to determine whether Dubin's conclusions held true for the total population studied and whether these conclusions were independent of the respondents' organizational position.

The CLI results were also used as a basis for categorizing each respondent of the three employee groups (i.e., first-line managers, middle managers, and professional employees) as job-oriented or non-job-oriented. That is, a six-fold classification of respondents was developed. Then a statistical analysis of variance (identical to that described above) permitted the determination of whether the employees' central life interests had any significant relationship to those job factors which were most important contributors to either satisfying or dissatisfying situations. The t test and Pearson product moment correlation coefficient test of significance (identical to that described above) was employed on the six employee classification responses. These results permitted the determination of whether the employees central life interests had any significant affect on the degree of relationship between the job factors for the satisfying and dissatisfying situation.

Scope and Limitations

Three limitations must be noted at the outset of this study. First, the sequence in which these instruments were administered could affect the responses to the items. The total questionnaire contains both general questions and specific job-related questions. To minimize the bias that could occur if the respondent was mentally "zeroed in" on the specific job situation (satisfying and dissatisfying situations) and was then forced to shift to a total environmental perspective, the questionnaire carried the respondent from a general situation (items of Dubin's central life interest) to a specific job-related situation (items from Friedlander's satisfying situation, followed by those from the dissatisfying situation). Second, the present study is based upon the assumption that the employee responses to the questionnaire were a truthful reflection of their feelings. Thirdly, only a sample of first-line managers, middle managers, and professional employees from one organization structure were included in the present study. The results of this study cannot be generalized to the total population of workers or to all organizational structures. The conclusions are therefore, limited to the sample of workers and to the type of organization which has been studied.

Organization of This Study

The research surrounding Dubin's central life interest theory and Herzberg's motivation-hygiene, dual continuum theory is presented in Chapter II.

The generality of Herzberg's motivation-hygiene, dual continuum theory for the employees studied is examined in Chapter III.

In Chapter IV, the generality of Dubin's conclusions concerning the central life interest of employees is examined for the managerial and professional employees included in the present study.

The relationship between the employee's central life interest and what he wants from his job is discussed in Chapter V.

Chapter VI contains a summary presentation of the results of this study and a statement of the motivational implication for management and organizations, based upon the responses of the employees included in the present study.

CHAPTER II

RELATED RESEARCH

In this chapter the research surrounding Dubin's Central Life Interest theory and Herzberg's motivation-hygiene, dual continuum theory of motivation is summarized.

Research efforts have been initiated to determine the effects of increasing industrialization on individual employees. One area of research has been directed toward defining the meaning of work for the individual. These efforts have taken two courses: first, those attempts to define in general terms the meaning attached to work and, secondly, those attempts to measure the importance of work relative to the employees' total sphere of activity.

Some of the research conducted to define the meaning of work in general terms is summarized below. Weiss and Kahn¹ contrasted work and non-work activities to determine the differences by which these distinctions were made. During an interview, the following question was asked:

¹R. S. Weiss and R. L. Kahn, On the Definition of Work Among American Men (Ann Arbor: University of Michigan, Survey Research Center, 1959).

In your opinion, what makes the difference between something you would call work and something you would not call work?

The most prominent responses given were as follows:²

	<u>Number</u>	<u>Percent</u>
1. Work is not enjoyed, not liked	150	46
2. Work is required, something you have to do	44	13
3. Work is something paid for	60	18
4. Work is exertion or activity, physical or mental	63	19
5. Work is something productive, a contribution	27	8

In their analysis of these results they note that for 59 percent (category 1 and 2) the common view emerges that work is prescribed, rather than freely chosen: it is a task, a burden, a duty, undertaken not because of its intrinsic value, but because it is in some way required. For 18 percent work was defined solely in economic terms ("something paid for"), and for another 19 percent work was defined as exertion or activity, a demanding task. For only 8 percent of these employees did a positive evaluation of work emerge.

If work is disliked or a burden, then relief from the duty of work should be welcomed. When asked "whether they would work anyway, should they no longer need to work to make a living," most respondents said they would.

²Ibid., p. 5.

Weiss and Kahn interpret this to signify that, although work is disliked or viewed as a required means, work in our society is taken to represent a man's duty in life. Relief from work, even though it is disliked, may leave individuals unsure of themselves, at loose ends, lost. If they are not working, most respondents said they would be nervous or upset, would lose self-respect, or be bored with nothing to do.³

Blum⁴ conducted similar research, concerning the impact of the organized work process (factory life) on the life of the workers and the attitude evoked in them. He conducted intensive interviews with packinghouse workers subject to a high degree of labor specialization. The question: "What do you first think of when you think of work?" is an attempt further to refine the meaning of work for factory employees. The responses were typified by: The monotony of work, the "grind", the physical fatigue, and the lack of a feeling of accomplishment combining to create a feeling that work is burdensome, hence, the tendency to look upon the work process itself as something negative. The worker does not expect anything else other what the work process offers and they direct their energies

³Ibid., p. 17.

⁴Fred H. Blum, Toward a Democratic Work Process: The Hormel Packinghouse Workers' Experiment (New York: Harper, 1953).

toward money and activities outside the factory.⁵

The general dislike to talk about their work seems to indicate a strong separation of their life off the job from their work. Blum states:

The great majority of the workers feels that work has no meaning for their life off the job. . . . The work process is so de-personalized that it is not considered as something that belongs to the person.

The separation of work and life is further highlighted by the overwhelmingly negative response to the question: Do you ever do anything off the job which helps you in your work in any way? Only a few workers do something during their free time that gives meaning to their work.⁶

Similar to a question asked by Weiss and Kahn, Blum questioned the workers: "If you inherited some money, and had enough to live on without working, would you want to work anyway?" The overwhelming majority answered "yes," which Blum interprets as exhibiting the "need to be occupied."⁷

Research was initiated by Friedmann and Havighurst⁸ to study the positive meanings that people in five occupational groups (steelworkers, coal miners, skilled craftsmen, sales people, and physicians) attach to their work. Those jobs studied provided a continuum from low skilled

⁵Ibid., p. 93.

⁶Ibid., pp. 97-98.

⁷Ibid., p. 108.

⁸Eugene A. Friedmann and Robert J. Havighurst, The Meaning of Work and Retirement (Chicago, Ill.: University of Chicago Press, 1954).

to professionals, in order to test their hypothesis that the extra-financial meanings (that is, those things exclusive of the wages and salary items) of work become more and more important as the occupational and skill ladders are ascended. The following comparisons across these job levels give some evidence to the truthfulness of this hypothesis.

For the steelworkers and coal-miners, work was a burdensome and dangerous task, yet it was a familiar routine around which life, as they knew it, seemed to revolve. The strongest emphasis placed on work as having no other meaning than earning money.⁹

Skilled craftsmen and salesclerks interpreted work more from the extra-economic meanings of their work than did the steelworkers and coal miners. For them work was defined as a source of self-respect and the respect of others, a moderate degree of emphasis on the meaningful life-experience and association of their jobs, and a relatively low degree of emphasis on work as a routine activity.¹⁰

Physicians stressed the extra-economic aspects of their jobs. Most of them conceived of their work in terms of the public "service" which they performed; none stated

⁹Ibid., pp. 173-175.

¹⁰Ibid., pp. 176-178.

that his work was only a way of earning a living.¹¹

Lafitte interviewed factory employees in Australia. The sample included people from the working, foreman, and professional classes. Part of the purpose of the study was to investigate behavior at work and workers' general orientation to their situation. More specifically, two areas were investigated during this interview: the behavior at work and opinions of the factory; and activities outside the factory. Lafitte states:

For the factory worker, work can only be the means of earning a living: a task which is more or less acceptable . . ., but, which is only accessory to the main purpose of life. The engagements into which the factory worker puts his major effort . . . may vary considerably; but as with nearly all persons in other occupational grades, his major effort goes into activities outside of work.¹²

A divorcing of oneself from the work situation is substantiated by Lafitte who found only 2 of 127 men were on terms of close friendship with workmates and only 50 had any acquaintance at all with their mates outside the factory.¹³

Morse and Weiss attempted to determine the meaning of work and its function for the individual; they interviewed a random sample of 401 employed men in the United

¹¹Ibid., p. 179.

¹²Paul Lafitte, Social Structure and Personality in the Factory (London: Routledge and Kegan Paul Ltd., 1958), p. 180.

¹³Ibid., p. 109.

States. They found that for many of those in the middle class (professionals, managers employed by others, and sales employees) work means having something interesting to do, having a chance to accomplish things and to contribute. Those in the working class occupations (foremen, crafts and trades, machine operators, semi-skilled, unskilled, and service employees) view work as virtually synonymous with activity, the alternative to which is to lie around and be bored or restless.¹⁴

Morse and Weiss conclude:

The present study indicates that for most men having a job serves other functions than the one of earning a living. In fact, even if they had enough money to support themselves, they would still want to work. Working gives them a feeling of being tied into the larger society, of having something to do, of having a purpose in life. These other functions, which working serves, are evidently not seen as available in non-work activities.¹⁵

Evidently, the major reason for working at a particular job may be monetary, but the reasons for wanting to continue to work are not. The high frequency with which people answer that they would change jobs if they inherited enough money to live comfortably without working points up the fact that commitment to working is much deeper than

¹⁴Nancy C. Morse and Robert S. Weiss, "The Functions and Meaning of Work and the Job," American Sociological Review, XX (April, 1955), 195.

¹⁵Ibid., p. 191.

commitment to their present jobs.¹⁶

To determine the impact of cultural values upon worker attitudes and behavior Whitehill conducted a survey of 2,000 production workers, equally divided between Japan and the United States, employed by four roughly comparable firms in each of the two countries. In order to determine if the identification by these employees with the company differs by cultural setting the following statement was posed:

I think of my company as:¹⁷

	United States %	Japan %
1. the central concern in my life and of greater importance than my personal life;	1	9
2. a part of my life at least equal in importance to my personal life;	23	57
3. a place for me to work with management during working hours, to accomplish mutual goals;	54	26
4. strictly a place to work and entirely separate from my personal life	23	6

The figures indicate that the Japanese workers, in general, identify more with the company than do U.S. workers (the sum of categories 1 and 2 = 66% vs. 24% for U.S.

¹⁶Ibid., pp. 193-196.

¹⁷Arthur M. Whitehill, Jr., "Cultural Values and Employee Attitudes; United States and Japan," Journal of Applied Psychology, XLVIII (1964), 71.

workers). On the other hand, 23 per cent of the U.S. workers (as compared with only 6% of the Japanese workers) desire a distinct separation of personal life and on-the-job-life. Cultural background appears to affect the individual's identification with industrial organizations.

The following general conclusions can be drawn from this course of research efforts: the meaning individuals attach to work can vary by occupational position. There seems to be a trend of lower occupational groups viewing work as an unpleasant means to an attractive end, that is money and the things money will buy. As the occupational ladder is ascended, the meaning of work can change to the view of work as intrinsically satisfying and an end in itself.

There also seems to emerge the commonality of viewing work as necessary (even if it may be undesirable) for the feeling of individual well being. This attitude seems to be based on the cultural taboos, which are integrated into the individual when non-work is mentioned as an alternative. Apparently, our society has successfully provided the mechanism for continued productive work by placing the obligation on the individual who in general feels a compelling drive to remain employed even if this entails subjecting oneself to an undesirable job.

Urban man is afforded the opportunity to participate in numerous activities, one of which is centered around

work. Some researchers have moved beyond a general definition of the meaning of work to examining work and the workplace's importance relative to the employee's total sphere of activity. This is the second course of research effort mentioned at the outset of this chapter. Blum has observed that "The machine has taken the place of man because the organization of industry made it the central figure."¹⁸

Given this observation and the opportunity of urban man to participate in numerous activities, the question arises: If man is no longer of central importance to the industrial organization, does man perceive work as being centrally important to him? Lafitte draws the following conclusion based upon his initial study:

Much the more important finding is that, if the person's central interests are outside his home, they are not in his work, whether in the task itself or in his relations with his boss. To put it simply, the factory worker is not work-centered, whatever other central interests he may have: for him work is merely an activity which is necessary to support his other and personally important activities whatever they may be. . . .¹⁹

. . . It is a convention of applied psychology that there are persons who regard their work as their most important engagement and who therefore put their heart, soul and guts into creative activity at work. But the possibility of doing this is open to a very few professional or independent workers. Most workers of any grade have no such scope, factory workers certainly have no scope at all for creative activity: they do what is prescribed exactly by the task itself,

¹⁸Blum, op. cit., p. xvii.

¹⁹Ibid., p. 171.

and can do neither less (unless they are prepared to be dismissed) nor more.²⁰

C. Wright Mills feels that work could lose its central position for middle class employees, due to the increasing rigor of their jobs. He states:

But if the work white-collar people do is not connected with its resultant product, and if there is no intrinsic connection between work and the rest of their life, then they must accept their work as meaninglessness in itself, perform it with more or less disgruntlement, and seek meanings elsewhere.

If white-collar people are not free to contribute their working actions they, in time, habitually submit to the orders of others and, in so far as they try to act freely do so in other spheres. If their way of earning a living does not infuse their mode of living, they try to build their real life outside their work. Work becomes a sacrifice of time necessary to build a life outside of it.²¹

Gurin and others interviewed nearly 2500 Americans selected so as to be representative of the total population. Their purpose was to elicit the attitudes of these people toward the three most important areas of their lives: marriage, parenthood, and work. They state:

With the alienation from the job that occurs with industrialization and increasing automation, with the shortening of the day and concomitant expanding opportunity for a life outside of the job that this allows, the job tends to lose its central position in a man's life. More energy is channeled into life outside the work, and the possibility arises for non-job areas of

²⁰Ibid., p. 180.

²¹C. Wright Mills, White Collar: The American Middle Classes (New York: Oxford University Press, 1951), p. 228.

life to provide the meaning and identity anchors that the job once provided.²²

Thus Lafitte, Mills, and Gurin represent a sample of those who speculate that employees are increasingly centering their lives off the job. Robert Dubin constructed a questionnaire to ascertain the proportion of employees centering their lives off the job. Inasmuch as Dubin's work represents a major basis for the present research, a detailed description of his assumptions and methodology is now presented.

Dubin's Theory of Central Life Interest

Dubin notes the historical trend that social institutions within which man can participate have increased both in number and size. He asks: "Does man participate with equal intensity in all the institutions of his life?" For Dubin, the answer clearly is no. Man's behavior, or participation, in the institutions of his life can take two forms: voluntary or necessary behavior.

Voluntary behavior. Voluntary behavior implies some choice among alternatives on either rational or affective grounds. Voluntary social behavior also implies that the choice of behavior selected can be expressed in some

²²G. Gurin, J. Veroff, and Sheila Feld, Americans View Their Mental Health (New York: Basic Books, 1960), p. 143.

preferential terms over the course of behavior not chosen.²³

Necessary behavior. Necessary behavior implies no such choice, since, by definition, the choice is not available.²⁴

The individual's participation can either be voluntary or necessary, in terms of his association with a particular institution. Once this association is formalized, his choice of behavior within a particular institution can either be voluntary or necessary behavior, or some combination of the two.

Dubin contends that the industrial workers' participation with an industrial organization is necessary behavior, or participation. The motivation to work is built into the social system. The general expectation is that males of working age will, in fact, be employed to earn a living.²⁵ The choice of not being employed is available only if the person is willing to subject himself to the multitude of negative social sanctions associated with being unemployed. These have the effect of removing this choice as a serious consideration. (Note the similarities of these conclusions to those of Weiss, Blum, Friedmann

²³Robert Dubin, "Industrial Research and the Discipline of Sociology," In Proceedings of the 11th Annual Meeting (Madison, Wisconsin: Industrial Relations Research Association, 1959), p. 155.

²⁴Ibid.

²⁵Ibid., p. 156.

and Havighurst, and Morse and Weiss.)

Dubin also believes that the industrial workers' participation within an industrial organization is necessary behavior. A central fact of working life as industrialization has proceeded is that the employee's work behavior is prescribed by the technology with which he works.²⁶ When there is a priority of technological consideration over other considerations in determining working behavior, that behavior must be classified as necessary behavior because it is beyond the individual's choice. Dubin states two basic requirements of necessary behavior:

1. That the behavior required be specifically set forth.
2. That its performance be surrounded with controls that insure the desired outcome.

The multifarious control devices used in all productive organizations are the substitutes for voluntary work performance (or behavior).²⁷

If the total social institutions available for individual participation are considered, Dubin believes that the following will hold true:

Most men have certain central life interests at any given time focused in one, or at most, several institutional settings. They have to participate in other institutions, but do so in terms of the behaviors

²⁶Ibid., p. 153.

²⁷Ibid., p. 157.

required in them, and without reference to the voluntary choices that may be available in them. Thus, the areas for voluntary social action are precisely the institutions that are central to a man's life interests and that are, therefore, at the focus of his attention.²⁸

If work is, in fact, a necessary behavior, then it should not be a Central Life Interest for the industrial worker; rather his Central Life Interest will be those voluntary behavior areas in which he participates in away from the job.

A summary is now presented of the research done by Dubin to determine if work and the work place are a central life interest, for industrial workers.

For Dubin, the world of industrial workers is defined in terms of significant areas of social experience, either off the job or on the job. For each area of experience, Dubin's basic object is to determine whether it represents a life interest of importance to the worker.²⁹

Dubin's approach to the study of industrial workers' attachment to work is based upon the following statements:³⁰

1. Social experience is inevitably segmented.
2. An individual's social participation may be necessary

²⁸Ibid., p. 160.

²⁹Robert Dubin, "Industrial Workers' World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan., 1956), 131.

³⁰Note: The following analysis is similar to Kenji Ima's, "'Central Life Interests' of Industrial Workers: A Replication among Lumber Workers," Unpublished Masters thesis, University of Oregon, 1962.

in one or more sectors of his social experience, but may not be important to him.³¹

From these two statements Dubin deduces the following three propositions:

1. Adequate social behavior will occur in sectors of social experience which are mandatory for social participation by the individual, but not important to him.
2. Primary social relations take place only in situations where the social experience is valued by the individual.
3. In situations of necessary but unimportant social participation the most direct and obvious feature of the situation become bases for the individual's attachment to that situation.³²

Dubin is concerned with a subjective state of mind. Some social experience is important because it is valued by its participants; some is important because it is necessary as a means toward an end, even though it is slightly valued in itself.³³

Dubin is concerned only with industrial workers and, therefore, reformulates the three propositions into testable hypotheses. In order to test the first proposition--which states that adequate social behavior will occur in sectors where the individual's participation is mandatory--he makes two basic assumptions:

³¹Dubin, "Industrial Workers . . .," op. cit., 132.

³²Ibid.

³³Ibid.

1. Holding a job is simple evidence of adequate performance above some minimal level that justifies continued employment by the company. Dubin thus assumes that social behavior is adequate in this sector of social experience.
2. Work is a mandatory social activity. Remunerative work is mandatory both in the general sense that most male adults (or female heads of households) are expected to work for a living, and in the specific sense that each job is surrounded by many imperatives and requirements for its performance.³⁴

The research question, relating to the first proposition, is to determine to what extent the job and its locale are a central life interest to workers. To test this, Dubin formulates the following hypothesis:

A significant proportion of industrial workers will be classified as non-job-oriented when central life interest is measured with the CLI questionnaire.³⁵

The second proposition (primary social relations take place only in situations where the social experience is valued by the individual) can be re-stated as two separate questions:

1. Is the workplace, as a social experience, valued more highly than other experiences?
2. Is the workplace one of primary social relations?

Results from a test of the first hypothesis suggest the answer to this first question: they give evidence that social experience of work is not as highly valued as other experiences.³⁶

³⁴Ibid., 134-135.

³⁵Ibid., 135.

³⁶Ibid.

The second question deals with the presence of primary human relations at work. "Primary human relations" is defined by Dubin as "the relationships that occur in groups where the interaction is face-to-face, continuous, intimate, and shared over a wide range of subjects."³⁷

From this Dubin hypothesized that

We may expect a significant proportion of industrial workers to be non-job-oriented with respect specifically to informal group experiences when measured on the relevant portion of the CLI questionnaire.³⁸

For Dubin "informal group experiences" are defined as "those relations between people that are not directly a product of an official relationship in an organization or related positions in a division of labor."³⁹

To make another test of this proposition Dubin focuses upon the part of it that deals with valued social experience. Valued social experiences are those activities which give pleasure, satisfaction, or general rewards, and which may be pursued in varying places and at varying times. Those questions dealing with this area Dubin designates as "general experience."⁴⁰ To test whether general experiences of the job are of central life interest to the worker he states the following hypothesis:

³⁷Ibid., 133.

³⁸Ibid., 135.

³⁹Ibid.

⁴⁰Ibid., 136.

A significant proportion of industrial workers will not respond to work as a valued social experience when this is tested by the general experience section of the CLI questionnaire.⁴¹

The third proposition (in situations of necessary but unimportant social participation, the most direct and obvious features of the situation become bases for the individual's attachment to that situation) deals with three questions:

1. Is the situation of necessary participation?
2. Is social participation unimportant?
3. Are the most direct and obvious features of the situation bases for attachment?⁴²

The answer to the first question is inferred from the mandatory position of work in our cultural setting. The second question, for Dubin, was confirmed by the findings associated with the first two hypotheses. The third question is subject to research and is further subdivided into two questions:

- i. What are some direct and obvious features of the situation?
- ii. Are those features bases for job attachment to that situation?⁴³

Dubin proposes to test question 3 in terms of the experiences in formal organizations and the experiences with technology. These two experiences are thought to be the most physically and directly obvious characteristics

⁴¹Ibid.

⁴²Ima, op. cit., p. 6.

⁴³Ibid.

of that situation.⁴⁴ Both kinds of experiences are direct and obvious.

The following two hypotheses were formulated to answer this question:

A significant proportion of industrial workers will score job-oriented for their organizational experience when measured on the organizational section of the CLI questionnaire.⁴⁵

Experience in the formal sector (organizational experience) includes a number of different relationships between an organization, its officials and its members. Hiring, joining, firing, disciplining, rewarding, directing, and ordering are illustrative of relationships of this sort.⁴⁶

A significant proportion of industrial workers will be job-oriented for their experiences with technological aspects of their environments when measured on the technological section of the CLI questionnaire.⁴⁷

The technical sector of experience was defined as that involving the relationships between an individual and his actual work operations.

The Central Life Interest Questionnaire

The Central Life Interest Questionnaire (CLI) was used to test these hypotheses. In the construction of the

⁴⁴Dubin, "Industrial Workers . . .," op. cit., 137.

⁴⁵Ibid.

⁴⁶Ibid.

⁴⁷Ibid., 138.

CLI questionnaire Dubin observed the work performance and work behavior of 1,200 workers. Intensive interviews were recorded with a sample of 120 selected employees. After a pretest, forty items were selected for the CLI questionnaire. Each statement represented an activity that had an approximately equal likelihood of occurring in connection with some aspect of the job or workplace, or at some definite point in the community outside of work. A third choice was added that represented an indifferent or neutral response. The following is presented for illustration.

When I am not with them, the people I miss most are:

_____ (job-oriented response) My friends with whom I work.

_____ (non-job-oriented response) My friends around town.

_____ (indifferent response) Just people in general.

Each of the forty items was individually scored as either a job-oriented, non-job-oriented, or indifferent response. Respondents were grouped by their responses to the forty statements utilizing the following scoring procedure. Respondents were designated as job-oriented workers who chose either: (a) job-oriented responses on at least half the items or (b) had at least 70 percent of their answers made up of a combination of job-oriented and indifferent responses with at least half of those responses job-oriented. The remaining respondents were designated non-job-oriented in their outlook because they responded with

more emphasis upon non-job-oriented and indifferent responses.⁴⁸

Within the forty items four relations could be separately analyzed: informal relations (14 items), general relations (9 items), formal organizational relations (7 items), and technical relations (10 items). The statements that applied to each of the four relations were scored as a separate group by summing the responses to the individual statements in each group. Using the same scoring procedure and same criteria mentioned above, the respondents were classified for their orientations to these four separate relations.

Dubin's Major Study on Central Life Interest

In Dubin's initial study, 491 industrial employees completed the CLI questionnaire. These responses were scored and presented by Dubin as they related to the five hypotheses stated.

Hypothesis 1: A significant proportion of industrial workers will rate non-job-interest high in their value orientation on the CLI questionnaire.

Seventy-six percent of the respondents were non-job-oriented in their total value orientation; they found their preferred human association and preferred areas of behavior outside of employment.

⁴⁸Ibid., 134.

Hypothesis 2: A significant proportion of industrial workers will be non-job-oriented with respect specifically to informal group experiences when measured on the relevant portion of the CLI questionnaire.

Ninety-one percent of the respondents were non-job-oriented with respect to informal group experiences; they preferred the informal human associations and contacts found in the community, among friends, and in the family.

Hypothesis 3: A significant proportion of industrial workers will not respond to work as a valued social experience when this is tested by the general experience section of the CLI questionnaire.

Eighty-five percent of the respondents were non-job-oriented with respect to their valued social experiences and preferred off-the-job activities as the center for their valued social experiences.

Hypothesis 4: A significant proportion of industrial workers will score job-oriented for their organizational experiences when measured on the organizational section of the CLI questionnaire.

Sixty-one percent of the respondents were job-oriented with respect to their organizational experiences. These respondents chose their companies as the most meaningful content to them when their life experiences in organizations were brought into focus. A significant majority of these workers believed that the companies in which they worked provided the important or preferred opportunities for organizational experiences.

Hypothesis 5: A significant proportion of industrial workers will be job-oriented for their experiences with technological aspects of their environments when measured on the technological section of the CLI questionnaire.

Sixty-three percent of the respondents were job-oriented with respect to the technological aspects of their environment; these respondents identified their workplace as the locale of their preferred relationships with the purely technical aspects of their environment.

These results led Dubin to conclude that his three generalizations* about industrial workers were correct:

Individuals exhibit adequate social behavior in sectors of experience in which participation is mandatory but not valued.

Primary human relations take place only in situations where the social experience is valued by the individual. An individual's attachment to a situation, in which his social experience is not valued by him, will be to the most physically and directly obvious characteristics of the situation.

In 1963, Dubin undertook a second study of the CLI of industrial workers in a different cultural setting, Germany.⁴⁹ At this time his CLI questionnaire was revised. Thirty-two items were used instead of the original forty item questionnaire. In this form each of the four sub-sections of the questionnaire contained eight statements to

*See p. 37 supra.

⁴⁹Robert Dubin, "Central Life Interests of German Industrial Workers," Paper Read at the 60th Annual Meeting of the American Sociological Association, Chicago, Illinois, 1965.

to allow each subsection to receive equal weight. Because of the shortening of the instrument the scoring procedures had to be modified slightly. Each of the four areas was scored as a separate group by summing the responses to the eight statements in that group. Respondents were designated job-oriented workers who chose (a) job-oriented responses on at least half of the questions (i.e., 4 out of 8) in each group or (b) had at least 6 of their answers (i.e., 75 per cent) in each group made up of a combination of job-oriented and indifferent responses, with at least 3 of these responses job-oriented. The remaining workers were designated non-job-oriented in their outlook because they responded with more emphasis upon non-job-oriented and indifferent choices.

For total classification purposes, the same scoring procedure was used with the exception that 70 per cent (versus 75 per cent for the sub sections) was used where their answers were made of a combination of job-oriented and indifferent responses. This group was classified as job-oriented workers. The difference in criteria of the subsectors and the total classification is based on the number of questions involved. In order to meet the criteria of 70 per cent in each sector, six out of eight had to be used in the above combination. Had five of eight been used, the criteria for evaluating responses would have been reduced to 62 per cent. The 32-item CLI questionnaire

and revised scoring procedure were used in the present study. (See Appendix I, Part I of questionnaire.)

The specific results of Dubin's Germany study will be presented later, but the general conclusion is that this study supports the hypotheses made in the original study and tends to validate the generalizations he had made. The scoring of the CLI questionnaire provided the means of classifying employees as either job-oriented or non-job-oriented. The following definitions of job-oriented and non-job oriented employees are presented by Dubin.

1. Job-oriented person. The job-oriented person is an individual centering his life on his job; the most important single institutional unit within which he operates is the work place. The job-oriented person finds his major satisfactions and rewards, as well as his deepest disappointments and frustrations, in connection with his work. He needs to achieve real satisfaction from work. These satisfactions can be fortified, more or less constantly, by supervisory encouragement and recognition and by other responses to a job well done.⁵⁰

2. Non-job-oriented person. The principal fact about the non-job-oriented individual is that his life is

⁵⁰Robert Dubin, The World of Work: Industrial Society and Human Relations (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1958), pp. 255-256.

focused just as intensively and just as devotedly as the job-oriented person.

Non-job-oriented workers are likely to exhibit a distinctive kind of adjustment to work. The necessity to work is accepted as conforming to social expectations. The central meaning of work is that it provides the wherewithal to pursue real life interests. Work may represent largely a source of income, necessary to pursue the things that are really important. To the non-job-oriented individual, then, the job is viewed as a means to an end, rather than as an end in itself.

As an instrument, work can be viewed with a kind of dispassionate detachment. If there is not forthcoming from work enough payoff--for example, if the income is inadequate to pursue his real interests--then a non-job-oriented individual may become extremely dissatisfied.

The non-job-oriented person tends to be indifferent to a total evaluation of his job, and the kinds of satisfactions it gives him: the major gratification the job provides is money for satisfying his non-job interests. So long as these interests can be satisfied, the job is viewed as adequate.

The non-job-oriented person is not emotionally involved in his work to any extent. His relative indifference permits him to accept with equanimity conditions

which a job-oriented person would find highly frustrating.⁵¹

Dubin's research has been replicated a number of times in studies involving both similar and different occupational groups. These studies include German industrial workers,⁵² lumber workers,⁵³ middle managers,⁵⁴ industrial supervisors,⁵⁵ over-the-road truck drivers,⁵⁶ industrial education teachers,⁵⁷ professional nurses,⁵⁸ and cooperative extension agents.⁵⁹ The results of these studies as well

⁵¹Ibid., pp. 256-257.

⁵²Dubin, "Industrial Workers . . .," op. cit., (40 questions).

Dubin, "Central Life . . .," op. cit., (32 questions).

⁵³Ima, op. cit., (40 questions).

⁵⁴Daniel R. Goldman, "Career Anchorage Points and Central Life Interests of Middle Managers" (Unpublished Ph.D. Dissertation), University of Oregon, 1968. (32 questions).

⁵⁵John G. Maurer, "Work as a 'Central Life Interest' of Industrial Supervisors," Academy of Management Journal, Sept., 1968, pp. 329-339 (40 questions).

⁵⁶Lewis M. Latta, "Occupational Attitudes of Over-the-Road Truck Drivers: An Exploratory Survey" (Unpublished Master's thesis), University of Oregon, 1962 (40 questions).

⁵⁷Hilding E. Nelson, "Occupational Self-Images of Teachers: A Study of the Occupational Involvements and Work Role Orientations of Michigan Industrial Education Teachers" (Unpublished Ed.D. thesis, Department of Education), Michigan State University, 1962 (40 questions).

⁵⁸Louis H. Orzack, "Work as a Central Life Interest of Professionals," Social Problems, Fall, 1959, pp. 125-132 (40 questions).

⁵⁹Raymond R. Rants, "The Professional Status of the Michigan Cooperative Extension Service." (Unpublished Ph.D. dissertation) University of Wisconsin, 1960 (40 questions).

as Dubin's two studies are summarized in Table 2.

These results indicate that the CLI questionnaire can identify the job-oriented and non-job-oriented employees in different occupational groups, and that occupational status appears to affect the proportion of job-oriented and non-job-oriented employees.

Orzack concludes from his study of nurses, that work is a central life interest for professionals; for four out of every five nurses studied work and the workplace are central life interests. This reversal of Dubin's findings suggest that professionals, as an occupational group, may have a different CLI than industrial workers. Orzack explains this reversal by the following comments about professionals in general and nurses in particular:

Training as a professional may stress technological details as well as the learning of behavior appropriate to future roles in work settings. Such training also encourages aspirants to professional status to prefer a work setting for the location of informal social relationships and as a source of personal satisfaction; these, however, are not as readily codified for transmission during training as are technology and prescriptions involving organization roles. . . . For the professional, work is a focal center for self-identification and is both important and valued. . . . Work is obviously a highly-valued, demanding and important feature of the many roles played in our society by professionals. . . . This emphasis on the centrality of work can be explained by the nature of the work, training and entrance requirements, and the type of individual personality who ascribes to professional status.⁶⁰

⁶⁰Orzack, op. cit., pp. 126-131.

TABLE 2

TOTAL CENTRAL LIFE INTEREST AND SUBORDINATE RELATIONS PATTERNS FROM NINE STUDIES
USING THE "CENTRAL LIFE INTEREST" SCHEDULE, IN PERCENTAGES

PATTERN	1 DUBIN Industrial workers (U.S.)	2 DUBIN Industrial workers (Germany)	3 LATTA Over-the- road truck drivers	4 IMA Lumber workers	5 NELSON Industrial educ. teachers	6 GOLDMAN Middle Managers	7 MAURER Production supervisors	8 ORZACK Profes- sional nurses	9 RANTA Coopera- tive ex- tension agents
<u>TOTAL CLI</u>									
Job-oriented	24	44	12	14	24	43	54	79	85
Non-job-oriented	76	56	88	86	76	57	46	21	15
<u>INFORMAL RELATIONS</u>									
Job-oriented	9	11	8	5	12	14	5	45	52
Non-job-oriented	91	89	92	95	88	86	95	55	48
<u>GENERAL RELATIONS</u>									
Job-oriented	15	50	18	11	23	45	57	67	77
Non-job-oriented	85	50	82	89	77	55	43	33	23
<u>FORMAL RELATIONS</u>									
Job-oriented	61	80	34	62	67	88	76	91	94
Non-job-oriented	39	20	66	38	33	12	24	9	6
<u>TECHNICAL RELATIONS</u>									
Job-oriented	63	72	62	54	69	79	87	87	87
Non-job-oriented	37	28	38	46	31	21	13	13	13
N =	491		349	400	230	493	111	150	232

In Ranta's study of cooperative extension agents, the reversal of Dubin's findings is even greater than that found in Orzack's study.

A relationship between occupational ranking and CLI scores is suggested in this table. If only the total CLI scores are examined, there seems to be a trend of scores running on a continuum from a larger percentage of non-job-oriented respondents (studies 1-4, which include industrial occupations) to a larger percentage of job-oriented respondent (studies 8 and 9, which include at least semi-professional and/or professional occupations). Intermediate to these two extremes (studies 6 and 7) is represented by "middle-management" type respondents. Nelson's study of industrial education teachers (study 5) presents some anomalies which keep this from being a "pure" trend.

These findings suggest that non-job-orientation is inversely related to the status or occupational positions of employees, with middle members of the organization evenly divided in their value orientation. Thus, the possibility exists of different occupational levels in the organizations having a different proportion of job-oriented and non-job-oriented employees.

Parker constructed a questionnaire to analyze the role which work plays in the lives of three occupational groups: bank employees, youth employment officers, and

child care employees; he incorporated six of Dubin's CLI items in his instrument. The overall results of the response to six CLI statements⁶¹ were as follows:

CENTRAL LIFE INTERESTS	Banking employees		Youth employment		Child care		TOTAL	
	#	%	#	%	#	%	#	%
Work	15	14	47	36	33	31	95	28
Family	66	62	70	53	59	56	195	57
Leisure	24	23	15	11	13	12	53	15
TOTAL	105	99	132	100	105	99	343	100

Bank employees place work third in importance and Child care employees and Youth employment officers place it second in importance. In addition to these results the degree of commitment to a particular kind of work was sought by asking the following question: If you could choose any occupation regardless of money would you . . . ?⁶² The three occupational groups' responses are presented in the following tabular form:

JOB CHOICE REGARDLESS OF MONEY	Banking employees		Youth employment		Child care employees		TOTAL	
	#	%	#	%	#	%	#	%
Same	39	37	67	50	64	61	170	50
Similar	2	2	39	29	30	29	71	21
Different	64	61	27	20	11	10	102	30
TOTAL	105	100	133	99	105	100	343	100

⁶¹S. R. Parker, "Work and Non-Work in Three Occupations," The Sociological Review, (March, 1965), pp. 65-75.

⁶²Ibid., p. 67.

Note that almost two-thirds of the bank employees would like to do something different, compared with one-fifth of youth employment officers and one-tenth of child care employees. A conclusion may be that child care and youth employment officers are actively involved or deeply committed to their work to the point of allowing it to claim a somewhat central position of importance in their lives.

As Parker concluded:

The propensity to have work as a CLI was found to be related . . . to: wishing to continue present job or doing something similar as opposed to wishing to do something different.⁶³

These conclusions are compatible with the job-oriented individual as defined by Dubin.

From these research studies using the CLI instrument, the conclusion can be made that for some classes of workers (blue collar and lower white collar) work is thought of in terms of a means to an end, and not as an end in itself. For a minority of employees (professional and possible upper managerial employees) work approaches an end in itself. The implications of those finding for motivation will be postponed until later.

Dubin has neither avoided criticism nor been alone in his attempts to measure the relative importance of work

⁶³Ibid., p. 73.

in the life of the individual. Blauner,⁶⁴ Wilensky,⁶⁵ and Kornhauser⁶⁶ represent three such criticisms.

Blauner criticizes Dubin and others who have attempted to generalize Dubin's findings to all industrial workers. In fact, Dubin's choice of the term "industrial workers" appears to carry this implication (although never formally stated by Dubin). Blauner's study deals with the concept of "alienation" in a comparative industrial analysis. He studied four industrial settings: printers, textile workers, auto assembly line workers, and chemical operators. He concludes that:

Each dimension of alienation . . . varies in form and intensity according to the industrial setting. There is thus no answer to the question: Is the factory worker of today an alienated worker? Inherent in the techniques of modern manufacturing and the principles of bureaucratic industrial organizations are general alienating tendencies. But in some cases the distinctive technology, division of labor, economic structure, and social organization--in other words the factors that differentiated individual industries--intensify these general tendencies, providing a high degree of alienation; in other cases they minimize and counteract them, resulting instead in control, meaning, and integration.⁶⁷

⁶⁴Robert Blauner, Alienation and Freedom: The Factory Worker and His Industry (Chicago: The University of Chicago Press, 1964).

⁶⁵Harold L. Wilensky, "Varieties of Work Experience," Reprinted in Henry Borow (ed.), Man in a World at Work (Boston: Houghton Mifflin Company, 1964), pp. 125-154.

⁶⁶Arthur Kornhauser, Mental Health of the Industrial Worker: A Detroit Study (With the Collaboration of Otto M. Reid) (New York: John Wiley and Sons, Inc., 1965).

⁶⁷Blauner, op. cit., pp. 166-167.

Blauner further states that from his intra-industrial comparison shows that:

An employee's industry . . . greatly influences the extent to which he is free in his work life and the extent to which he is controlled by technology or supervision. It also influences his opportunity for personal growth and development--to learn, to advance, to take on responsibility. His industry even affects the kind of social personality he develops, since an industrial environment tends to breed a distinctive social type.⁶⁸

His findings imply that any generalization about "industrial workers" will be questioned because of the wide variance in industrial settings. He also seems to doubt Dubin's basic axiom that "social experience is inevitably segmented" when he states:

It is fashionable to argue that work alienation is not an important present or potential problem because work has lost its former position as "the central life interest" particularly for manual workers. It is the hope of many that the opportunity for self-expression and creativity denied by modern technology and bureaucracy can be found again in the freely chosen pursuits of leisure time. . . . The problem with the leisure solution is that it underestimates the fact that work remains the single most important life activity for most people, in terms of time and energy, and ignores the subtle ways in which the quality of one's worklife affects the quality of one's leisure, family relations, and basic feelings.⁶⁹

There seems to be some "spill over" effect implied between work and leisure, and the two do not represent separate, segmented worlds.

⁶⁸Ibid., p. 166.

⁶⁹Ibid., pp. 183-184.

Wilensky studied the "alienation-attachment-indifference" relationship and expressed the opinion that the CLI questionnaire is biased. He states:

Dubin's assumption that each question represents an activity that is as likely to occur "in connection with some aspect of the job or workplace" or "at some definite point in the community outside of work" seems dubious. Also, it is possible that a friendship in the neighborhood or a social club was originally formed in the workplace, and many "community" answers should have been coded "job-oriented."⁷⁰

If Wilensky's observation is true and the questionnaires were re-scored, the results of Dubin's study would show a higher percentage of job-oriented people. Wilensky's criticism seems to be a value judgment which is difficult to prove or disprove. Dubin's questions were evolved, not from a value judgment, but from rather extensive research on the subject. Even though Wilensky is critical of Dubin, this study which relates feelings about work to actual patterns of social life, does give some support to Dubin's contention. Wilensky states:

Though work accounts for slightly more hours than the mass media and mass entertainment, and though the workplace activates friendships for large numbers, the core of life for most men in the middle mass is not the job.⁷¹

In the society of socialist dreamers, work is central, natural, and an end in itself. . . . On balance, the vast majority of Americans are "playing it cool,"

⁷⁰Ibid., p. 152.

⁷¹Wilensky, op. cit., p. 152.

neither strongly wedded to the job nor feeling it to be an intense threat to their identity.⁷²

Kornhauser criticizes Dubin's conclusions in a study of the psychological conditions of workers in modern mass-production industries:

In our opinion, the methods and data of that (Dubin's) research do not all justify the conclusions that work is not of central significance for workers. What the results indicate is that workers find their pleasures and intimate relationships more in nonwork situations than work. A clear distinction must be made between the subjective importance of work and the satisfaction it provides. Dubin defines "central life interest" to refer to "expressed preferences" for work relationships. Our own results, on the other hand, indicate how large the job looms in the worker's life, including its negative implications as well as the positive, and including feelings about the job's importance as a source of economic gratifications, its contributions to a sense of personal worth, and its implications regarding the worker's place in the community.⁷³

Kornhauser asked the respondent to state "how the individual feels about his life and the way it has been working out." The respondents' ideas were first classified to yield a measure of the relative frequency with which different subjects were mentioned and, secondly, a measure of the most "salient" ideas was obtained by counting only those topics that the individual particularly stressed or mentioned repeatedly. This information was used to indicate the importance of the job as compared to other life interest ideas mentioned. Kornhauser presented the following findings to "indicate that the job and its direct

⁷²Ibid., pp. 125-148.

⁷³Kornhauser, op. cit., p. 328.

economic consequences are very much in the forefront of working people's thinking, at least on a par with family interests and decidedly more prominent than other segments of their lives."⁷⁴

TABLE I-I
FACTORY WORKERS' LIFE INTEREST AS INDICATED BY
VOLUNTEERED RESPONSES⁷⁵

	All Ideas	Salient Ideas
The job	26%	22%
Family relations; wife and children	18	22
Leisure and social activities	16	11
Own health, age, competence, etc.	13	13
Personal economic conditions	10	17
Social conditions, war, politics, people, etc. (with no clear personal prefer- ence)	10	8
Life experiences and relationships (other than current economic)	7	7
	<u>100%</u>	<u>100%</u>

The addition of the two classifications "personal and economic conditions" and "the job" results in more than one-third of all the ideas mentioned centering around the activities of work. Kornhauser presents this as evidence that "the worker's job is a highly important sector of his life" even though one-third would not normally be classified as a majority. For these employees the job commands a prominence in their thinking of approximately

⁷⁴Ibid., p. 9.

⁷⁵Ibid., p. 8.

equal proportion to the waking hours spent working. Approximately two-thirds of the ideas mentioned are non-job related giving evidence that other segments of the worker's life are more prominent in their thinking than the job. When recast in these terms, Kornhauser's results do not appear to disprove Dubin's contention.

When the work of Blauner, Wilensky, and Kornhauser are considered in total as they bear upon Dubin's findings, the following observations can be made:

First, all of these researchers evaluate the worker's attitudes and perceptions from a different perspective: Blauner is concerned with the degree of worker alienation; Wilensky with the "alienation-attachment-indifference" relationship as it relates to worker's self-image; Kornhauser with the role of work in the worker's self-image; and Dubin with the expressed preference for a given locale or situation in carrying out an activity.

In the opinion of this researcher, Kornhauser's results neither prove nor disprove Dubin's theory. Although the studies of Blauner and Wilensky are critical of Dubin, they appear to have one shortcoming, for the relationship between alienation and central life interest does not appear to be clear.⁷⁶

⁷⁶Wilensky himself notes that "The cause of alienation need not be the causes of low attachment. For instance, blocked mobility, life-cycle squeeze, and a large number of superior levels of authority foster alienation, but their absence does not assure strong attachment. (Wilensky, op. cit., p. 143.)

These individuals all evaluate the worker from a different perspective. The constraints of the current study limit its perspective to one orientation which is that of the employees' central life interest.

Secondly, Dubin is the only investigator who utilized a questionnaire. Kornhauser and Wilensky employed personal interviews, Blauner used a combination of interview and participant observer method. Although this observation is not intended criticism of the interview procedure, a pre-tested questionnaire is a more suitable method within the constraints of this study, and permits a more definite classification of results.

Lastly, in the two studies where the relative importance of work was examined (i.e. those of Wilensky and Kornhauser), the results appear to support Dubin's theory, although in only one of the studies, Wilensky's, does the author state that his findings give some support to Dubin.

From these studies which have defined the meaning which work has for the individual some inferences could be drawn about what employees want from their jobs. However, a definition of what the employee desires from his job was not the primary concern of the aforementioned studies. However, an understanding of employee motivation requires a more definitive statement of what the employee wants from his job. Many research efforts have been directed

toward this end out of which at least two competing theories of motivation have emerged: the single continuum theory of motivation, and the dual-continuum motivation-hygiene theory of motivation. Both theories are based upon an understanding of what employees want from their jobs, and there is conformity between both theories concerning the relationship between motivation and employee wants. There is agreement that when the job and job environment provide the employee with what he wants, satisfaction and positive motivation ensue; and when the job and job environment cannot provide the employee with what he wants, dissatisfaction and negative motivation ensue. However, strong disagreement arises between the proponents of each theory as to the identity of those factors in the job environment which cause either satisfaction or dissatisfaction as well as disagreement about the movement of employees between the conditions of satisfaction and dissatisfaction.

The historical approach to motivation, commonly referred to as the single continuum theory of motivation, views satisfaction and dissatisfaction as opposite extremes of a single continuum. An employee moves along this continuum in response to increases or decreases in any work-related variables. The assumption is that any additions to the work-related variables increases overall satisfaction and any diminutions of these work-related variables decreases satisfaction or creates dissatisfaction. This

theory contends that all the work-related variables operate in concert. By increasing any work variable, satisfaction and motivation are increased.

The proponents of the motivation-hygiene, dual-continuum theory of motivation disagree with this assumption. Frederick Herzberg's work has been instrumental in the development of this theory. The present research was partially designed to test the generality of Herzberg's theory.

Herzberg's Research on Employee Motivation

To determine "what workers want from their jobs," Herzberg and associates undertook a review of the articles and books regarding factors relating to job attitudes and the effect of job attitudes on work performance. Their resulting book⁷⁷ sets forth three basic conclusions on this subject:

1. There was much disagreement and confusion in the field.⁷⁸
2. There was a difference in the primacy of factors, depending upon whether the investigator was looking for things the worker liked about his job or things he disliked. The concept that there were some

⁷⁷Frederick Herzberg, Bernard Mausner, Richard O. Peterson, and Dora F. Capwell, Job Attitudes: Review of Research and Opinion (Pittsburg, Pennsylvania: Psychological Service of Pittsburgh, 1957).

⁷⁸Frederick Herzberg, Bernard Mausner, and B. Snyderman, The Motivation to Work (New York: John Wiley and Son, 1959), p. vii.

factors that were "satisfiers" and others that were "dissatisfiers" was suggested by this finding.⁷⁹

3. A major failing of most previous work in job attitudes has been its fragmentary nature. Studies in which factors affecting a worker's attitude toward his job were intensively investigated rarely included any information as to the effects of these attitudes. Studies of effects, similarly, rarely included any data as to the origin of the attitudes.⁸⁰

Based on these three conclusions, the authors decided to take a "new approach" to the study of job attitudes.

The primary need that emerged was for an investigation of job attitudes in toto, a study in which factors, attitudes, and effects would be investigated simultaneously. The basic concept was that the factors-attitudes-effects (F-A-E) complex needs study as a unit. . . .⁸¹ . . . the factors-attitudes-effects complex should be studied within individuals. That is, an attempt would be made to note, individual by individual, how given kinds of factors lead to high or low morale and the consequences of the morale state as indicated by various criterion measures.⁸²

The "new approach" was based on a research design that measured job attitudes by asking the individual to identify periods of time in his own work history when his feelings about his job were unquestionably either higher or lower than usual.

One basic assumption had to be made:

⁷⁹Ibid., p. 7.

⁸⁰Ibid., p. 11.

⁸¹Ibid.

⁸²Ibid., p. 12.

This was that people could place their own feelings about their jobs on a continuum, identify the extremes of this continuum, and choose those extreme situations to report to us.⁸³

A pilot study was initiated to see if the design and basic assumption would prove to be a useful approach to identify the job factors responsible for the employees' attitudes. Thirteen people from various organizational positions were selected to participate in this study. The reports given to the interviewer were termed "sequence of events." The following criteria were developed for determining whether a reported sequence of events was an acceptable sequence of events for categorization:

1. The sequence must revolve around an event or a series of events; that is, there must be some objective happening.
2. The sequence of events must be bounded in time; it should have a beginning that can be identified, a middle and, unless the events are still in process, there must be some identifiable ending, not necessarily dramatic or abrupt.
3. The story must have taken place during a period of which feelings about the job were either exceptionally good or exceptionally bad.
4. The story must concern a period of time in the speaker's life when he held a position that fell within the limits of our sample.
5. The story must be about a situation in which the speaker's feelings about his job were directly affected and not about a sequence of events that revolved around high or low spirits caused by something unrelated to the job.⁸⁴

⁸³Ibid., p. 14.

⁸⁴Ibid., pp. 40-41.

The acceptable sequence of events were further classified into two categories:

1. Short-range sequence of events--This was reserved for those narrowly delimited sets of events during which exceptional feelings were reported.
2. Long-range sequence of events--This was reserved for those events during which exceptional feelings were reported, that covered a minimum of time of several weeks to a month.⁸⁵

The results of the first pilot study proved that the technique could produce analyzable data from which hypotheses concerning job attitudes could be tested.

A second pilot study of larger scale was undertaken for preliminary testing of several hypotheses that had been suggested by the findings of the first pilot study and by the earlier survey of the related literature. These hypotheses were:

1. Different kinds of factors will be found to lead to short-range and long-range sequences.⁸⁶
2. Different kinds of effects will result from the job attitudes shown during short-range and long-range sequences.⁸⁷
3. "High" sequences, that is those revolving around good feelings, will stem from different factors and will contain different effects than "low" sequences, those revolving around bad feelings.⁸⁸

⁸⁵Ibid., p. 23.

⁸⁶Ibid., p. 24.

⁸⁷Ibid.

⁸⁸Ibid., pp. 24-25.

A sample of thirty-nine middle-management personnel was selected. Middle managers were chosen because the first pilot study showed these employees to be more verbal, better educated, and more conscious of the flow of their attitudes than personnel in other organizational positions.

Based on the results of the second pilot study, the factors leading to job attitudes were divided into two classes:

1. First-level factors. These were defined as situations that were antecedent to a person's attitude toward his job. Thus, first-level factors always described concrete events or situations reported by the respondents.⁸⁹
2. Second-level factors. These were defined as the needs or drives that were activated by these events. These would be the individual's psychological reaction to, and interpretation of, these events.⁹⁰

The researchers were now ready to embark upon the study that was designed to test specifically the following two hypotheses:

1. The factors leading to positive attitudes and those leading to negative attitudes would differ.
2. The factors and effects involved in long-range sequences of events would differ from those in short-range sequences.⁹¹

⁸⁹Ibid., p. 27.

⁹⁰Ibid.

⁹¹Ibid., p. 29.

Herzberg's Major Study

The major study was conducted in industrial firms located in Pittsburgh. The respondents were chosen from the accountants and engineers in these firms because the second pilot study had pointed up that these professional people were best able to give a vivid account of their work experiences.

The authors justify using only these two groups as follows:

Accountants were chosen because their jobs, like those of engineers, are rich in technique. This richness makes it likely that the accountant, like the engineer, would have much to tell us. However, the groups are vastly different in the nature of their training, their present degree of professionalization, the kind of work they do, and presumably, the kind of people attracted into them. Last, by covering accountants and engineers, we examined the job attitudes of two of the most important staff groups in modern industry.⁹²

Those included in the sample of accountants were "all personnel involved in the fiscal activities from the chief account or comptroller to the lowest rank at which judgmental functions are exercised."⁹³ The sample of engineers included "all individuals who had any design function whatsoever," but did not include routine detail draftsmen.⁹⁴

⁹²Ibid., p. 32.

⁹³Ibid., pp. 33-34.

⁹⁴Ibid., p. 34.

Herzberg's Instrument

The data for this research were obtained from an in-depth interview with each of 203 randomly selected subjects.

During the interview each respondent was asked to think about a time when he felt exceptionally good or exceptionally bad about his job. For each of these situations he was then asked to relate what had happened and then to indicate on a 21 point scale how seriously his feelings about his job had been affected by what had happened.

A "content analysis" was made of the stories gathered in the interview, by breaking down the stories into "thought units."⁹⁵ Through analysis⁹⁶ of a sample of 5000 thought units the method for categorizing the sequence of events related by each respondent was extracted from the material itself. (These 5000 thought units were sorted into 3 groups (first-level factors, second-level factors, and effects). Within each group the thought units were resorted to help categorize and define the factors constituting that group. Sixteen job factors were defined as constituting the first-level category, eleven job factors

⁹⁵A "thought unit" is a statement about a single event or condition that led to a feeling, a single characterization of a feeling, or a description of a single effect. (Ibid., p. 38.)

⁹⁶For a detailed description of this analysis see Frederick Herzberg et al., The Motivation to Work, pp. 38-39.

were defined under the second-level category, and five under the category effects.

The first-level factors (i.e. the objective element of the situation in which the respondent finds a source for his good or bad feelings about his job) were used to test the first hypothesis as stated by Herzberg:

Hypothesis I--The factors leading to positive attitudes and those leading to negative attitudes would differ.⁹⁷

The present study is concerned only with those results that relate to this hypothesis because:

1. This is the main information with which Herzberg deals in the formulation of his theory
2. Those who have attempted to verify or negate Herzberg's theory have concentrated wholly on the findings as they relate to this first hypothesis. This is in no way to be construed as proof of the proper approach to studying job attitudes; it is merely a statement of facts.
3. This present study is concerned only with this specific area of Herzberg's study. The following results have not been taken out of context to prove a position, but are believed to be representative of all his results presented. For the sake of pertinence, only those results that relate to Herzberg's first hypothesis are discussed. For the purposes of this study, then, the second level factors and the effects as defined by Herzberg will be ignored.

Herzberg constructs the following table to show the importance the first-level factors had in contributing to the "high" feelings and "low" feelings, and to indicate the time span of these factors, under the heading of "Duration

⁹⁷Ibid., p. 29.

PERCENTAGE OF EACH FIRST-LEVEL FACTOR APPEARING
IN HIGH AND LOW SEQUENCES

	Duration of Feelings					
	High			Low		
	Long*	Short	Total**	Long*	Short	Total**
1. Achievement	38	54	41 +	6	10	7
2. Recognition	27	64	33 +	11	38	18
3. Work itself	31	3	26 +	18	4	14
4. Responsibility	28	0	23 +	6	4	6
5. Advancement	23	3	20 +	14	6	11
6. Salary	15	13	15	21	8	17
7. Possibility of growth	7	0	6	11	3	8
8. Interpersonal relationships sub.	6	3	6	1	8	3
9. Status	5	3	4	6	1	4
10. Interpersonal relations- superior	4	5	4	18	10	15 +
11. Interpersonal relations- peers	4	0	3	7	10	8 +
12. Supervision- technical	3	0	3	23	13	20 +
13. Company policy and admin.	3	0	3	37	18	31 +
14. Working con- ditions	1	0	1	12	8	11 +
15. Personal life	1	0	1	8	7	6 +
16. Job security	1	0	1	2	0	1

*The Long column includes the frequency of lasting attitudes resulting from both long-range and short-range sequences.

+Differences of totals between high and low statistically significant at .01 level of confidence.

**The percentages total more than 100 per cent, since more than one factor can appear in any single sequence of events.

Source: Frederick Herzberg, B. Mausner and B. Snyderman, The Motivation to Work (New York: John Wiley and Son, 1959), p. 72.

of Feelings."

The following observations can be made about the first-level factors contributing to the "high" feelings and "low" feelings.

The "High" Sequence, First-Level Factors

If only the total percentage figure for the "highs" are examined, five factors stand out as strong determiners of job satisfaction: achievement, recognition, work itself, responsibility, and advancement. However these factors appeared with relative infrequency in "low" sequences. Three of these five job factors stand out when the "duration of feeling" variable is examined. Quoting from Herzberg:

The factors of work itself, responsibility, and advancement are almost always associated with long-term changes in job attitudes. Rarely do they cause a change that is merely transient. Contrariwise, change in job attitudes resulting from events involving achievement or recognition are significantly more often of a short-range variety.⁹⁸

Since long-range attitude changes are also associated with greater performance effects (as he later shows when discussing effects), the former trio of factors are also more singularly potent for improving job effects.⁹⁹

Herzberg draws the conclusion that the top five factors, as contrasted with the other eleven, focus on the job itself: (1) on doing the job, (2) on liking the job,

⁹⁸Ibid., p. 64.

⁹⁹Ibid., p. 63.

(3) on success in doing the job, (4) on recognition for doing the job, and (5) on moving upward as an indication of professional growth.¹⁰⁰ Herzberg states that the basic complex among the highs is a series of events related to feelings of self-actualization and growth.¹⁰¹ These five factors he later calls "satisfiers" or "motivators."

The "Low" Sequences, First-Level Factors

If only the "total" percentage figures for the "lows" are examined the five most important factors leading to a low condition are: the company policy and administration, supervision-technical, salary, interpersonal relations-supervision, and working conditions. These are related to conditions that surround the job, and not with the job itself. Responsibility (18 per cent) is not included in this list. This is accounted for by the note (+) that only the differences of totals between high and low that were statistically significant at the .01 level of confidence were presented. Salary appears as frequently in the high total column as it does in the low sequences total column, but is included only as a low sequence, even though it is not statistically significant. This seems to be a contradiction in the way the data were handled, but Herzberg defends this choice as follows:

¹⁰⁰Ibid.

¹⁰¹Ibid.

If we examine the table for duration of attitude change we find that in the lows, salary is found almost three times as often in the long-range as in the short-range sequences. For the high job attitude stories salary is about equal in both durations. It would seem that as an affecter of job attitudes salary has more potency as a job dissatisfier than as a job satisfier. If the interrelationship of the factors is studied, it can be seen that salary was associated with company policy and administration in about one half of the low sequences of events; in the high sequences it was most frequently associated with advancement and work itself. When salary occurred as a factor in the lows, it revolved around the unfairness of the wage system within the company, and this almost always referred to increases in salary, rather than the absolute levels. In contrast to this, salary was mentioned in the high stories as something that went along with a person's achievement on the job. It was a form of recognition; it meant more than money; it meant a job well done; it meant that the individual was progressing in his work. Viewed within the context of the sequence of events, salary as a factor belongs more in the group that defines the job situation and is primarily a dissatisfier.¹⁰²

This factor, above all others, seems to present Herzberg with the most difficulty.

When the time span of the low elements is analyzed, the only conclusion that Herzberg is able to reach is that the overall frequency of short-term attitude sequences is larger than the equivalent group of frequencies in the high sequences.¹⁰³

In an analysis of the high sequence versus the low sequences, Herzberg makes the following conclusions:

For the lows, the range of percentages among the sixteen factors is not so large as for the highs. Five

¹⁰²Ibid., pp. 82-83.

¹⁰³Ibid., p. 74.

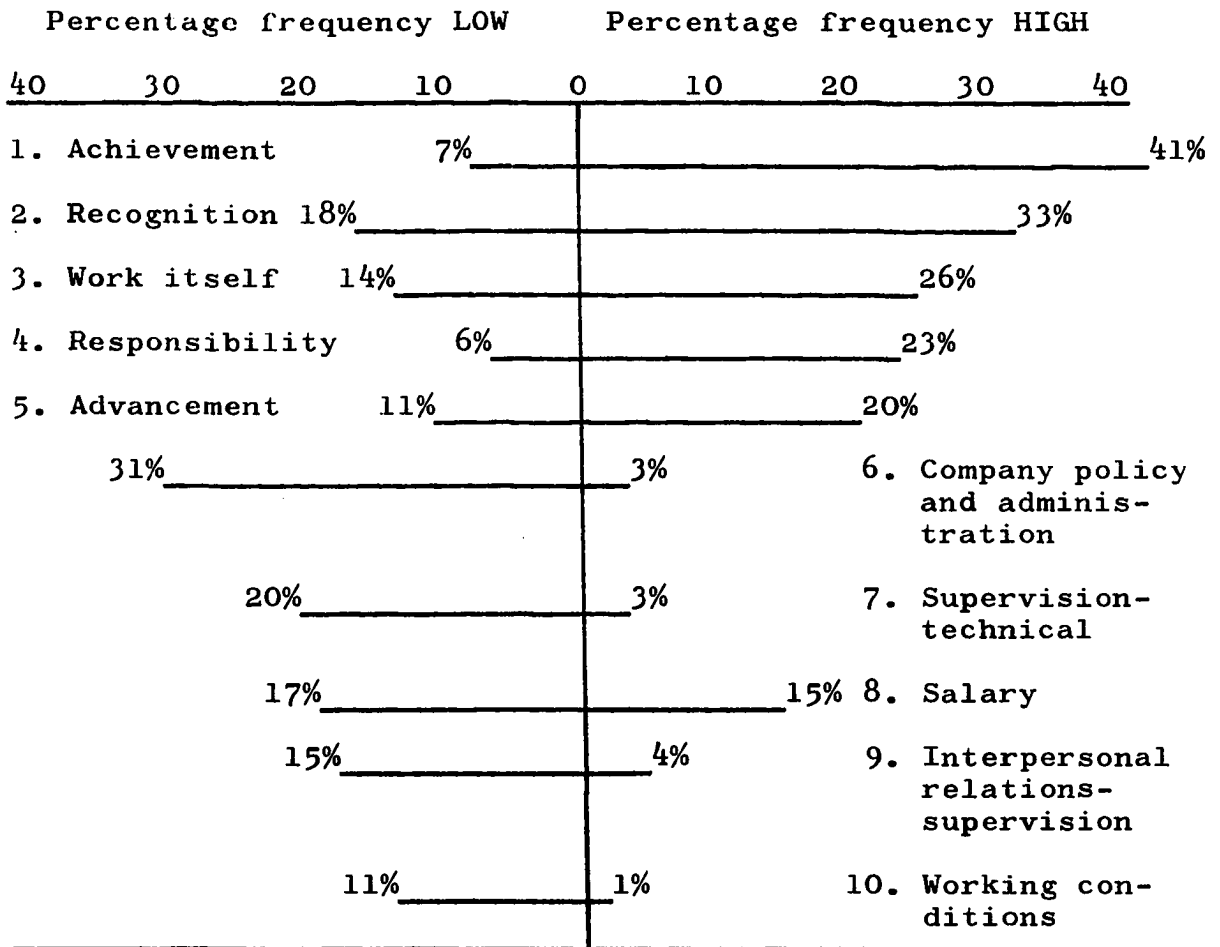
of the factors in the high sequences appeared in as many as one fifth of the stories. In contrast to this, only two factors in the low sequences appeared that often. On the other hand, six factors in the low sequences have percentages between 10 and 19 per cent, and only one factor in the high sequences was in that range. For the highs, as we have seen before, there are a few factors that stand out as satisfiers, with the remaining factors making a negligible contribution to job satisfaction. For the lows, the differences in the percentages among the factors is small in contrast. . . . From this result we can speculate that the factors included in this study show more equal potentiality for leading to job dissatisfaction than they do for leading to job satisfaction. A great many things evidently can be the source of dissatisfaction, whereas only those factors that we mentioned previously can contribute to bringing about positive job attitudes.¹⁰⁴

In order to illustrate the relation between the high and low factors, Herzberg singles out the five top contributing factors in each group and presents them in the following graphical form.

From the previous table and the graphic representation of parts of this table Herzberg contends that his first hypothesis has been proved; namely, that the factors which lead to satisfaction (achievement, recognition, work itself, responsibility and advancement) are mainly unipolar; that is, they contribute very little to job dissatisfaction. Conversely, the dissatisfiers (company policy and administration, supervision, interpersonal relations, working conditions, and salary) contribute very little to job satisfaction.¹⁰⁵

¹⁰⁴Ibid., p. 79.

¹⁰⁵Ibid., p. 77.

COMPARISON OF SATISFIERS AND DISSATISFIERS¹⁰⁶

These ten job factors serve as the bases for Herzberg's motivation-hygiene theory. To clarify the meaning attached to these job factors the following definitions are presented. These definitions were used by the coders to determine where a sequence of events should be placed.

The definitions used for the five job factors which proved to be the most important satisfiers were:

¹⁰⁶Ibid., p. 81.

Achievement--Stories involving some specifically mentioned success were put into this category and these included the following aspects: successful completion of a job, solutions to problems, vindication, and seeing the results of one's work. Our definition of achievement also included its opposite, failure, and the absence of achievement.¹⁰⁷

Recognition--The major criterion for this category was some act of recognition to the person speaking to us. The source could be almost anyone; supervisor, some individual in management, management as an impersonal force, a client, a peer, a professional colleague, or the general public. Some act of notice, praise, or blame was involved. We felt that this category should include what we call "negative recognition," that is acts of criticism or blame.¹⁰⁸

Work itself--Work itself was used when the respondent mentioned the actual doing of the job or the tasks of the job as a source of good or bad feelings about it.

Responsibility--Factors relating to responsibility and authority are covered in this category, which includes those sequences of events in which the person speaking reported that he derived satisfaction from being given responsibility for his own work or for the work of others or being given new responsibility. It also includes stories in which there was a loss of satisfaction or a negative attitude toward the job stemming from a lack of responsibility.¹⁰⁹

Advancement--This category was used only when there was an actual change in the status or position of the person in the company.¹¹⁰

The definitions used for the five job factors which proved to be the most important dissatisfiers were:

¹⁰⁷Ibid., p. 45.

¹⁰⁸Ibid., pp. 44-45.

¹⁰⁹Ibid., p. 47.

¹¹⁰Ibid., p. 46.

Company policy and administration--This category describes those components of a sequence of events in which some over-all aspect of the company was a factor. He identifies two kinds of over-all company policies and administration characteristics. One involved the adequacy or inadequacy of company organization and management. . . . The second kind of over-all characteristic of the company involved not inadequacy but the harmfulness or beneficial effects of the company's policies. These are primarily personnel policies.¹¹¹

Supervision-technical--In this category, the critical characteristics were the competence or incompetence, fairness or unfairness of the supervisor. Statements about the supervisor's willingness or unwillingness to delegate responsibility or his willingness or unwillingness to teach is classified under this category (as distinct from Interpersonal relations-superior).¹¹²

Salary--This category included all sequences of events in which compensation plays a role.¹¹³

Interpersonal relations--We restricted our coding of interpersonal relations to those stories in which there was some actual verbalization about the characteristics of the interaction between the person speaking and some other individual. We set this up in terms of three major categories:

Interpersonal relations-superior
Interpersonal relations-subordinates
Interpersonal relations-peers¹¹⁴

Working conditions--This category was used for stories in which the physical conditions of work, the amount of work, or the facilities available for doing the work were mentioned in the sequence of events.¹¹⁵

These two classes of job factors Herzberg calls "motivators" and "hygiene factors," respectively.

¹¹¹Ibid., p. 48.

¹¹²Ibid., p. 47.

¹¹³Ibid., p. 46.

¹¹⁴Ibid.

¹¹⁵Ibid., p. 48.

Motivators are so named because other findings of the study suggest that they are effective in motivating the individual to superior performance effort. These factors lead to positive job attitudes because of satisfying the individual's need for self-actualization. "Hygiene factors" are so named because they essentially describe the environment and serve primarily to prevent job dissatisfaction, while having little effect on positive job attitudes. This is an analogy to the medical use of the term meaning "preventative and environmental."¹¹⁶ Hygiene factors operate to remove health hazards from the environment of man. They are not curative, but rather preventative.¹¹⁷

Herzberg's Theory of Motivation-Hygiene

The findings of this study led Herzberg to the motivation-hygiene, dual continuum theory of motivation. This theory states that factors involved in producing job satisfaction are separate and distinct from the job factors that lead to job dissatisfaction. The opposite of job satisfaction would not be job dissatisfaction, but rather no job satisfaction; and the opposite of job dissatisfaction is no job dissatisfaction, rather than job satisfaction.

¹¹⁶Frederick Herzberg, Work and the Nature of Man, p. 74.

¹¹⁷Ibid., p. 113.

Herzberg illustrates this as follows:

Man's basic needs can be diagrammed as two parallel arrows pointing in opposite directions. One arrow depicts his Animal-Adam nature, which is concerned with avoidance of pain stemming from the environment, and for man the psychological environment is the major source of this pain. The other arrow represents man's Human-Abraham nature, which is concerned with approaching self-fulfillment or psychological growth through the accomplishment of tasks.¹¹⁸

The hygiene factors fulfill the need for the avoidance of pain from the environment and have little effect on fulfilling the needs for self-actualization. The motivators fulfill the need for self-actualization and have little effect on fulfilling the need for avoidance of pain from the environment.

Herzberg restated an important point: In our own data, we found that this unidirectional effect was truer of the hygiene factors than the motivators.¹¹⁹

Implications

For Herzberg the implications of his research findings appear to be based on his belief that man tends to actualize himself in every area of his life, and that his job is one of the most important areas. The conditions that surround the job cannot give him this basic satisfaction because they do not have this potentiality. Only from

¹¹⁸Ibid., p. 76.

¹¹⁹Herzberg et al., The Motivation to Work, pp. 111-112.

the performance of a task can the individual feel rewards and reinforce his aspirations.¹²⁰ An overemphasis on hygiene carries within itself the seeds of trouble. It can lead to a greater and greater focus on the extraneous rewards that reside in the context of jobs. The emphasis should be on the strengthening of motivators. The slogan could almost be raised, "hygiene is not enough."¹²¹ In terms of job structure, Herzberg believes that the individual should have some measure of control over the way in which the job is done in order to realize a sense of achievement and of personal growth.

Herzberg concludes that he is well aware that many conditions in today's industrial organization do not provide the opportunity for full utilization of the motivators. For these people he feels that:

The good life will have to come from fruitful hobbies and from improved lives outside the job. We would hope that as our society evolves, this group would become smaller and smaller. Thus, we reject the pessimism that view the future as one in which work will become increasingly meaningless to most people and in which the pursuits of leisure will become the most important end of our society. We cannot help but feel that the greatest fulfillment of man is to be found in activities that are meaningfully related to his own needs as well as those of society.¹²²

¹²⁰Ibid., p. 114.

¹²¹Ibid., pp. 131-132.

¹²²Ibid., pp. 138-139.

The motivation-hygiene dual-continuum theory has been the subject of many research projects. These projects have been initiated to investigate the generality of the basic theory using either a different occupational group or a different methodology. The following studies are representative of research efforts utilizing a methodology similar to Herzberg with different occupational groups. These studies lend support to the generality of the motivation-hygiene dual continuum theory.

The aggregate results of these studies are summarized in Table 3, which represents the frequency of motivators and hygiene factors during the two-job situations: high job-attitude feelings and low job-attitude feelings.

For the purpose of comparison these results have been standardized. All of the motivators and hygiene factors were computed on a base of 100%. The figures in Table 3 indicate the importance (as part of 100%) all the motivators as a group and all the hygiene factors as a group had in contributing to "high job-attitude feelings." Similar computations are used to compare the importance of all the motivators to all the hygiene factors in contributing to "low job-attitude feelings." The findings of these studies indicate that the motivator factors were primarily related to the high job-attitude feelings, varying from a high of 96 per cent for agricultural extension workers, to a low of 51 per cent for skilled hospital employees. The hygiene

Table 3.--Summary results from a sample of studies utilizing a methodology similar to Herzberg's. Results represent percentage of motivators during "high-job attitude feelings" and "low-job attitude feelings" contrasted with the percentage of hygiene factors during the same two situations.

	High Job-Attitude Feelings		Low Job-Attitude Feelings	
	Motivators	Hygiene	Hygiene	Motivators
1. Herzberg:				
A. Pittsburg engineers	78	22	62	38
B. Pittsburg accountants	79	21	67	33
C. Finnish supervisors	87	13	81	19
2. Allen (commercial bank employees)	77	23	63	37
3. Anderson:				
A. Hospital nurses	74	26	68	32
B. Skilled hospital employees	51	49	81	19
C. Unskilled hospital employees	67	33	75	25
4. Clegg (agricultural extension workers)	96	4	62	38
5. Gengel (housekeeping workers)	78	22	76	24
6. Myers:				
A. Scientists	92	8	61	39
B. Engineers	84	16	62	38
C. Manufacturing supervisors	72	28	65	35
D. Male hourly technicians	81	19	66	34
E. Female assemblers	86	14	55	45
7. Perczel (Hungarian engineers)	79	21	73	27
8. Saleh (pre-retirees, management)	89	11	67	33
9. Schwag and Heneman (1st and 2nd line supervisors)	78	22	54	46
10. Schwartz (low level supervisors, utility companies)	88	12	59	41
11. Walt (high level professional women)	69	31	66	34

factors were primarily related to low job-attitude feelings, varying from a high of 81 per cent for Finnish Supervisors to a low of 54 per cent for First and Second Line Supervisors.

Even with the general support given Herzberg's motivation-hygiene theory by these studies many people have leveled criticisms against the theory. These criticisms revolve around some combination of the following points.

First, Herzberg's results are methodologically bound. The major argument is that the storytelling method used by Herzberg "forced" the results obtained, and similar results can be obtained only if a similar method is used.

Vroom states:

It is . . . possible that obtained differences between stated sources of satisfaction and dissatisfaction stem from defensive processes within the individual respondent. Persons may be more likely to attribute the causes of satisfaction to their own achievements and accomplishments on the job. On the other hand, they may be more likely to attribute their dissatisfaction not to personal inadequacies or deficiencies, but to factors in the work environment, i.e., obstacles presented by company policies or supervision.¹²³

Secondly, some critics assert that Herzberg's study was based upon a faulty research foundation. The main criticism is that the coding of the responses is not completely determined by the rating system and the data, but requires interpretation by the rater, and thus increasing

¹²³V. Vroom, Work and Motivation (New York: John Wiley and Sons, 1964), p. 129.

the probability of rater contamination. This criticism is voiced even though Herzberg has shown that more than 95 per cent agreement existed between the coders.

In addition to these two main criticisms some question has been raised as to the mutual exclusiveness of the definitions used for the various motivators and hygiene factors. Also criticized was the lack of a measure of overall satisfaction in the original study. Thus a gap was created in determining the effect of the hygiene or motivator factors on overall satisfaction or dissatisfaction.

In an attempt to compensate for some of these faults, some researchers have employed other methodologies and achieved varying results. The results can be summarized under three categories: (1) studies supporting Herzberg's theory; (2) studies which only partially support Herzberg's theory; and (3) studies that disagree with Herzberg's theory.

The following studies are representative of those supporting the motivation-hygiene theory even when a different methodology was employed. Halpern used a questionnaire and asked 93 men to rate various aspects of their best-liked job, using a seven-point graphic rating scale. The respondents rated four motivators and four hygiene factors on a scale of 1 to 7, representing the range from "very dissatisfied" to "very satisfied," respectively. They also rated their overall satisfaction with the job.

The results support the basic thesis of the motivation-hygiene theory. The motivators were primarily related to job satisfaction and contributed significantly more to overall satisfaction than did the hygiene factors.

Friedlander and Walton interviewed 82 of the most productive scientists and engineers at an Armed Service research and development laboratory. The purpose was to discover those factors which operate to keep an employee at his present work, or the sources of satisfaction, and those factors that would be influential in his leaving the present job, or the sources of dissatisfaction. The results indicate:

. . . that satisfaction and dissatisfaction are, for the most part, unrelated and noncomplementary functions, rather than negatively related poles of a single bipolar continuum.¹²⁴

The following studies were reported in Herzberg's book, Work and the Nature of Man,¹²⁵ showing that some variance in methodology does produce similar results.

Paul Schwartz, focusing more on job performance than job attitudes of third-level supervisors, found the theory generally to hold. Approximately 80 per cent of the factors attributed to positive events fell within Herzberg's motivator classification; the vast majority of factors

¹²⁴Ibid., p. 206.

¹²⁵Herzberg, Work and the Nature of Man, op. cit., pp. 132-140.

attributed to negative events fell within Herzberg's hygiene classification.

Clifford Hann analyzed nearly 1,000 incidents from a sample of 800 officers in the U.S. Air Force. The analysis was based on a short-run situation (good days vs. bad days) in contrast to Herzberg's long-run situations. The results were similar to Herzberg's findings: the major source of satisfaction were motivators, and the major source of dissatisfaction were hygiene factors.

Wayne Gibson surveyed 1,700 nonsupervisory personnel for their opinion on the major irritations and greatest satisfactions in their jobs. The results for the male employees were in direct accord with Herzberg's theory.

The following studies are representative of those which employed a different methodology and only partially supported the motivation hygiene theory: Wernimont (1966); Burke (1966); Malinovsky and Barry (1965); Heinrichs and Mischkind (1967); Ewen (1964); and Friedlander (1963) (1964).

Although the methodology varies, as does the occupational groups studied, the following broad generalizations can be made based on the findings of the above-mentioned research. The two sets of factors (motivator and hygiene factors) are not totally independent. When satisfying situations are examined, motivators do represent a higher degree of importance than hygiene factors, which accords with Herzberg's theory. However, contrary to the Herzberg

theory, motivators also seem to contribute a larger proportion than hygiene factors to dissatisfying situations.

Ewen and others have utilized the Job Description Index (JDI) to measure job satisfaction. The JDI can be described as:

. . . an adjective checklist dealing with five areas of the job; the work itself, supervision, pay, people, and promotion. . . . /Although/ the JDI does not deal with all the satisfiers and dissatisfiers used in the Herzberg study, it was considered preferable to other instruments which while measuring more factors were of less well substantiated validity . . . (the authors) used only three factors . . . work itself and promotions (supposedly satisfiers) and pay (supposedly a dissatisfier).¹²⁶

The General Motors Faces Scale was used to measure overall job satisfaction. This instrument is described as:

A one-item graphic scale, consisting of six faces varying from a large smile to a larger frown. The S is asked to check the face which most clearly represents his feelings toward his job-in-general.¹²⁷

Ewen and associates administered these instruments to nearly 800 men randomly selected from the lists of employees 35 years of age or older.

As will be discussed later, these two instruments have been widely used to disprove Herzberg's theory. However, the Ewen et al., study includes the following remarks about the somewhat ambivalent results:

¹²⁶R. Ewen, P. Smith, C. Hulin, and E. Locke, "An Empirical Test of the Herzberg Two-Factor Theory," Journal of Applied Psychology, 1966, p. 547.

¹²⁷Ibid.

Being satisfied with a satisfier leads to more overall satisfaction than being satisfied with a dissatisfier. . . . The results indicate that dissatisfaction with satisfiers does lead to overall dissatisfaction . . . being satisfied with a dissatisfier leads to no more overall satisfaction than being neutral with regard to the dissatisfier . . . for people who are satisfied with the satisfiers, being satisfied with the dissatisfier leads to greater overall satisfaction than being neutral with regard to the dissatisfier. . . . The present results taken as a whole do not provide clear support for either the Herzberg or for the traditional theory. Some of the results favor one theory while others favor the other theory.¹²⁸

Friedlander's Modification of Herzberg's Methodology

Frank Friedlander, a student of Herzberg's, has developed an instrument which bridges the main criticisms directed at Herzberg. Friedlander's instrument was chosen for this present study to test the generality of Herzberg's theory. The following is a detailed description of the two studies by Friedlander from which the present instrument was developed.

In 1962, Friedlander completed a study initiated for the purpose of analyzing the sources of job satisfaction in the job environment. He constructed a seventeen-item attitude questionnaire composed primarily of items which several factorial studies had indicated to measure certain well defined dimensions. These seventeen items were designed to represent a composite of approximately equal

¹²⁸Ibid., pp. 547-548.

numbers of intrinsic job items and extrinsic job items.

These items are shown in the following table.

TABLE 4
INTRINSIC AND EXTRINSIC JOB ITEMS INCLUDED
IN THE FRIEDLANDER QUESTIONNAIRE

Intrinsic Job Items	Extrinsic Job Items
1. Promotion	1. Relationship with supervisor
2. Challenging assignments	2. Relationship with co-workers
3. Recognition	3. Technical competence of supervisor
4. Feeling of achievement	4. Merit increases
5. Responsibility	5. Working conditions
6. Growth on the job	6. Job security
7. Work itself	7. Home life
8. Use of best abilities	8. Work group
	9. Management policies

Source: Frank Friedlander, "An Analysis of the Relationships Among Sources of Job Satisfaction" (Unpublished dissertation, Department of Psychology, Western Reserve University).

All items were designed to measure the relative importance of each of these items in contributing toward a particularly satisfying job that the respondent had held. The situation question to which the respondent responded was stated in identical words as those used in the Herzberg "high" situation.

The questionnaires were distributed to almost 9,500 engineers, management, and salaried employees in a manufacturing company. More than 92 per cent of these

employees completed the questionnaire.¹²⁹

Because other research, cited by Friedlander, led to the conclusion that occupational position of an employee might easily influence his source of satisfaction, the unequal numbers of employees in each of these groups in the total sample might influence further statistical analysis of these responses, questionnaires for two hundred employees in each of the three occupational positions were utilized for his analysis.

The responses to the seventeen-item questionnaire were subjected to factorial analysis from which three meaningful factors emerged as contributing to the satisfying situation:

Factor I--Social and technical environment
Factor II--Intrinsic self-actualizing work aspects
Factor III--Recognition through achievement.

Factor I broadly deals with the interpersonal elements within a job environment; Factor II, more with the intrapersonal elements; Factor III, with the impersonal nature directed primarily toward the traditional ascendant striving typically ascribed to our free-enterprise form of industrial society.¹³⁰ Friedlander has thus reduced and defined the elements within the work context (viewed as a sphere of

¹²⁹Frank Friedlander, "An Analysis of the Relationships Among Sources of Job Satisfaction" (Unpublished Ph.D. dissertation, Department of Psychology, Western Reserve University), p. 30.

¹³⁰Ibid., p. 38.

available satisfaction) to three underlying and, for the most part, unrelated factors.

All the items in Factor I fall within Herzberg's concept of hygiene factors, although the opposite is not true, all Herzberg's hygiene items are not included in Friedlander's Factor I. All the items within Factor II fall within Herzberg's motivation factors although the opposite is not true. Factor III seems to draw from both the hygiene factor (merit increases) and from the motivation factors (promotion and recognition).¹³¹

Friedlander draws the following relationship between his study and Herzberg's study:

The study by Herzberg does not claim to have established empirically two independent and unique factors, but rather that elements within each factor seem to contribute preponderantly toward satisfaction (motivator factors) or dissatisfaction (hygiene factors). However, some evidence is offered (by frequencies and percentages) that job elements in one factor seem to occur together and more frequently, and similarly, job elements in a second factor occur together more frequently. Such relationships are in general accord with the results of the current study.¹³²

Although Friedlander's study bears some relations to Herzberg's the approach involves two distinct differences:

1. A structured measuring device was utilized instead of the interview-content analysis technique utilized by Herzberg.
2. The questions posed in Herzberg's study tapped both sources of job satisfaction and dissatisfaction.

¹³¹Ibid., pp. 52-53.

¹³²Ibid., p. 54.

Friedlander only deals with the factors contributing to job satisfaction, with a factor emerging similar to Herzberg's "hygiene" factors in the job satisfaction sphere.

In 1964, Friedlander added one other item to the questionnaire.¹³³ A second instrument using the same variables was constructed to test the impact of these factors on dissatisfying situation thus removing the difference stated in #2 above, and making a total test of the motivation-hygiene dual-continuum theory. Friedlander has bridged the two foremost criticisms of Herzberg by using a different methodology and constructing an objective measurement tool. (Part II and III of the questionnaire used in the present study, and reproduced in Appendix I infra, are the same 18-item instruments constructed by Friedlander.)

Each respondent indicated on a four-point scale the degree to which each of the 18 aspects of the job was important as a source of satisfaction and dissatisfaction. In order to subject the findings to statistical analysis, means and standard deviations were computed for each of the factors. The reliabilities of the satisfaction and dissatisfaction measures were computed by means of Kuder-Richardson Formula 20, and were .79 and .72, respectively.¹³⁴

¹³³The satisfaction measure was designed in part by F. Herzberg.

¹³⁴Frank Friedlander, "Job Characteristics as Satisfiers and Dissatisfiers," Journal of Applied Psychology, XLVIII (1964), 389.

The following are the results and conclusions drawn by Friedlander from his study.

A. Comparison between satisfiers and dissatisfiers: For 12 of the 18 job characteristics, satisfaction with the job item differs significantly (at the .01 level of significance) from dissatisfaction with the lack of or negative aspect of the job item. Thus, for most job characteristics, satisfaction and dissatisfaction are not complementary functions.¹³⁵

When the degree of relationship between the importance of the job characteristics to satisfaction and dissatisfaction was analyzed, fifteen of the eighteen correlations were not significant. This indicates that few accurate predictions of work-item dissatisfaction can be made from a knowledge of the employee's specific satisfaction with the job item. Generally, to the extent that these items are important to satisfaction, lack of these may or may not be important to dissatisfaction.¹³⁶ These findings initially support Herzberg's dual-factor theory that satisfaction and dissatisfaction are unrelated, and thus not bipolar aspects of a single continuum.

B. Comparison among satisfiers and among dissatisfiers: Two analyses of variances between the means scores on the

¹³⁵Ibid.

¹³⁶Ibid., 390.

satisfiers and dissatisfiers indicated significant differences among the various job characteristics as sources of satisfaction, and significant differences among the same job characteristics as sources of dissatisfaction.

However, when the most important characteristics in each of the situations were examined the following results emerged. Job characteristics such as achievement, challenging assignments, recognitions, and work itself were viewed as the most important factors to both satisfaction and dissatisfaction. These seem to be involved in the work process itself. Job characteristics least important to both satisfaction and dissatisfaction were employee benefits, merit increases, working conditions, effect of job on home life, job security, and the technical competence of the supervisor. These encompass the social and technical environment of the worker.¹³⁷

These findings question Herzberg's conclusion that intrinsic characteristics are important for job satisfaction and minimally important for job dissatisfaction and that extrinsic characteristics are important for job dissatisfaction and unimportant for job satisfaction. The findings of this analysis lead Friedlander to the conclusion that the intrinsic job characteristics are important to both job satisfaction and job dissatisfaction, whereas extrinsic

¹³⁷Ibid., 391.

characteristics are relatively unimportant as either satisfiers or dissatisfiers.¹³⁸

Friedlander has supported Herzberg's theory that satisfiers and dissatisfiers are not opposite ends of a continuum, but rather operate on separate continuums, but he has negated the intrinsic-satisfying, extrinsic-dissatisfying theory of Herzberg.

The following studies are representative of those researchers who utilized different methodology and whose results totally conflict with Herzberg's theories.

In two separate studies (Graen, 1966; Levine and Weitz, 1968) questionnaire responses were subject to factor analyses to determine whether the content categories developed by Herzberg resulted in factors. Graen's study will be discussed briefly. Eleven factors emerged from 96 items written to cover the content of Herzberg's 16 dimensions. Only four factors emerged containing items written to measure one of Herzberg's dimension. The other seven factors all included items based on several different dimensions of Herzberg's. Graen concludes:

It is clear that the content categories established by Herzberg . . . do not result in factors. . . . The finding that items for a single dimension ended up in different factors and that items from different dimensions ended up in the same factor points up the difficulty inherent in any subjective effort to form categories of "factors" from interview data. . . . In the

¹³⁸Ibid.

present study many of the items derived from Herzberg's categories appear not to belong together.¹³⁹

Lindsay, Marks, and Gorlow administered a questionnaire to two classifications of employees, professionals and non-professionals. The most important motivator (achievement) with three sub-points and the most important hygiene factor (company policy and administration) with three sub-points were selected for representing the total classes of Herzberg's motivator and hygiene factors. The results of their study include the following conclusions:

The two classes of . . . variables, motivators and hygienes, accounted for 75% of the variance in satisfaction scores. . . . The data of this study indicates that both Motivators and Hygienes are related to satisfaction. . . . The results of this study further suggest that workers with strong feelings of achievement on a job will remain satisfied, even though conditions surrounding the job . . . are perceived as being inadequate. On the other hand, workers who do not feel as if they are accomplishing much on the job will be dissatisfied, even though conditions on the job are good. These findings are clearly at variance with Herzberg's contention that there is no interaction between motivators and hygienes.¹⁴⁰

The following studies all utilized the Job Description Index (JDI) and the General Motors Faces Scale to test the validity of Herzberg's two-factor theory of job satisfaction. Graen (1968); Graen and Hulin (1968); Hulin and

¹³⁹George B. Graen, "Motivator and Hygiene Dimensions for Research and Development Engineers," Journal of Applied Psychology, L, 6 (1966), 563-566.

¹⁴⁰C. Lindsay, E. Marks, and L. Gorlow, "The Herzberg Theory: A Critique and Reformulation," Journal of Applied Psychology, 1967, pp. 336-337.

Smith (1967); and Graen (1966). These studies attempt either completely to negate the two-factor theory, or to destroy it as a predictive theory of motivation.

The results of these studies can be summarized as follows. If the presence of a variable results in a job being described or judged as good, the absence of that same variable results in the job being described as bad. This finding, of course, supports the traditional model of job satisfaction and argues against the two-factor theory. Clearly then, the present results provide no support for the prediction which one would make on the basis of the two-factor theory of job satisfaction. The so-called satisfiers acted as both satisfiers and dissatisfiers, and the dissatisfiers acted as satisfiers as well as dissatisfiers.¹⁴¹

The two-factor theory has been subject to widespread criticism and denial; Herzberg and those who believe the theory still valid, have prepared a defense for these traditional theory onslaughts.

In response to Vroom and others who feel the results may be reflecting a defensive reaction of the subjects to the questions, Herzberg states:

Assuming that there is bias, the probable bias is to obscure the motivation-hygiene theory, rather than enhance it. The supposition that people would prefer

¹⁴¹Charles L. Hulin and Patricia A. Smith, "An Empirical Investigation of Two Implications of the Two-Factor Theory of Job Satisfaction," Journal of Applied Psychology, LI, 5 (1967), 400-401.

to blame hygiene factors, rather than motivators, for their job unhappiness in order to make themselves look good is naive. It does not take too much experience with job-attitude data to find that the opposite is more often true. Employees who wish to make themselves look good are much more prone to say they are unhappy because they do not have responsibility, are not getting ahead, have uninteresting work, see no possibility for growth and do not receive recognition than to say that their supervisor is unfriendly, the administration is poor, the working conditions are bad, their fellow workers are unsociable, etc.¹⁴²

Herzberg also answers the critics who contend his theory is "technique-bound" by quoting Marvin Dunnette who reviewed the original study in his book, Psychology Applied to Industry:

Although these conclusions are important, a more fundamental contribution to the study is that the job factors so identified were allowed to emerge from descriptions of actual job situations rather than being based exclusively on responses to checklists or sets of statements developed ahead of time by the investigator. The job factors derived by Herzberg's classification are more likely, therefore, to reflect things in the job environment leading to employee's approach and avoidance behavior.¹⁴³

Those who have attempted through research to disprove the motivation-hygiene theory have, according to Herzberg, suffered from two main problems. First, they have failed to recognize that extreme satisfaction and dissatisfaction are more important than lesser feelings, thus warning against attributing too much meaning to items listed in job-attitude questionnaires without being able

¹⁴² Herzberg, Work and the Nature of Man, op. cit., pp. 130-131.

¹⁴³ Cited in ibid., p. 131.

to separate the wheat from the chaff.¹⁴⁴ This naivete results in nothing more than a morale survey. There is the distinct possibility that the individual would be forced to choose between statements which are irrelevant to the situation described.

Secondly, those who have attempted to factor analyze questionnaire responses suffer from two faults: First, the meaning of the items as presented to an employee may be unclear (in contrast to the Herzberg method which allowed the respondent to describe his own factors); second, the listing of factors as "pure" motivators and "pure" hygiene upon analysis may be "confounded". In other words, a factor which is thought of as representing a pure motivator may, in fact, represent a combination of motivator-hygiene factors. Herzberg cites one such factor --Prestige or Recognition; prestige is clearly a hygiene factor and recognition a motivator; thus the discovery that this factor acted as both a satisfier and dissatisfier should have been anticipated since it is a confounded factor.¹⁴⁵

Whitsett and Winslow defend the motivation-hygiene theory in a systematic criticism, on a study-by-study basis, of those who purport to have disproved the theory.

¹⁴⁴Ibid., pp. 145-146.

¹⁴⁵Ibid., pp. 146-147.

In general, they criticize three basic errors that have been made in attacking the motivation-hygiene theory.

1. Misinterpretation of the Motivation-Hygiene Theory

Perhaps the most common fault is an attempt to use measures of overall job satisfaction to make statements which purport to be derived from the theory. Whitsett and Winslow state:

The theory does not, and purposely does not, make statements about overall job satisfaction. The separateness of the sets of factors makes it apparent that job attitudes must be looked at twice--one to see if the needs fulfilled by the hygiene factors are indeed fulfilled, and again to see if the needs fulfilled by the motivator factors are met. . . . The essence of the motivation-hygiene concept is that motivator factors and hygiene factors are independent, operate on different needs, and cannot be combined. Therefore, the motivation-hygiene theory makes no predictions about overall anything . . . if it did make predictions about overall job satisfaction . . . it becomes evident that the motivation-hygiene theory would predict that both motivator factors and hygiene factors contribute to overall satisfaction. It makes no sense to say that, if a man is unhappy with his working conditions, this will not have a negative effect on his overall feeling toward his job. . . . By forcing the motivation-hygiene theory to make predictions about a concept (overall job satisfaction) negates its very nature, they have reduced its dimensions to exactly those of traditional framework, motivation-hygiene theory would make exactly the same predictions as traditional theory.¹⁴⁶

2. Methodological Weaknesses

The second error is an outgrowth of this misinterpretation of the theory. As Herzberg has done, Whitsett

¹⁴⁶David A. Whitsett and Erik K. Winslow, "An Analysis of Studies Critical of the Motivation-Hygiene Theory," Personnel Psychology, XX (1967), 395-398.

and Winslow question the validity of using "confounded" factors to disprove the motivation-hygiene theory; but, more important, they attack the Job Description Index (JDI) as a valid tool to test the generality of the motivation-hygiene theory.

It is difficult to understand why the authors of various studies would choose to measure Herzberg's factors with the JDI . . . it led them to use only three of Herzberg's sixteen factors . . . two of the three factors that were used were of questionable relevance to the motivation-hygiene theory . . . promotion opportunities and policies . . . is contaminated with aspects of company policy and administration which is a hygiene factor. It is also unfortunate that they used pay as their only hygiene factor since it is probably the most marginal and complex of all Herzberg's factors . . . work itself if unquestionably a pure motivator. . . . This choice of factors, when added to a single-item measure of overall satisfaction (General Motors Faces Scale) leads to further obscuring the clarity of their results.¹⁴⁷

3. Misinterpretation of Results

For Whitsett and Winslow this is a logical consequence of misinterpretation of the theory and the methodological weakness in testing the theory. Based upon the criticisms stated above these authors feel that it is probably safer not to claim support or refutation of either the traditional theory, or the motivation-hygiene theory. They also note that the results of the most critical studies actually give partial support to the motivation-hygiene theory. They emphasize that "in testing a theory, an investigator is obligated to interpret the theory correctly,

¹⁴⁷Ibid., pp. 398-399.

to use adequate methods, and to interpret his results carefully."¹⁴⁸

The orientation of this present research is to utilize the framework provided by the motivation-hygiene theory to test its generality under a different condition and in conjunction with other variables.

Even though the proponents of the motivation-hygiene theory and the traditional uni-continuum theory are in opposition, a common point emerges. An understanding of what an employee wants from the job is the cornerstone of motivating employees, for when an employee achieves what he wants from the job, satisfaction and motivation ensue.

Such well known authors as Argyris, Likert, McGregor, and Herzberg, have concluded that what employees generally want most from their jobs is the possibility for self-actualization. These writers have had a major impact on management theory. The common view expressed is that organizations are under-utilizing their human resources because situations are not provided whereby employees can attain self-actualization while they are performing their jobs. In Argyris' view, management has concluded that the average human being is permanently arrested in his development in early adolescence. Such a conclusion has led management, in general, to believe people only want

¹⁴⁸Ibid., p. 413.

economic and job security from their jobs; thus no provision has been made to satisfy their need for self-development and growth, or to control their working environment. This belief has led managers, in general, to emphasize highly structured jobs, to provide a high degree of direction, to feel that monetary rewards constitute initially the only means of motivation, and to rely heavily on power and authority to "control" the worker so that the job gets done. In the final analysis, this has historically resulted in a distinct separation of management from the doing of the job. Thus the worker has no responsibility (and management believes that he does not want the responsibility) for anything other than the physical performance of a job. As Argyris states, the result of this approach may be a degree of "alienation" from the organization structure. McGregor concurs that if people are not already accustomed to being directed, manipulated, and controlled in industrial organizations they will become so, and they will seek satisfaction for their social, egotistical, and self-fulfilment needs away from the job. This view of workers seeking only lower-level needs has negated management's acceptance that the higher level needs can prove a useful avenue to motivate employees.¹⁴⁹

¹⁴⁹The concept of need hierarchy derives from: A. H. Maslow, "A Theory of Human Motivation," The Psychological Review, Vol. 50, No. 4, July 1943, pp. 370-396.

The contention of the aforementioned authors is to build into the job and the organization structure the opportunity for employees to satisfy these higher order needs (social, ego, and self-fulfillment) and thus releasing the potential for more efficient utilization of the human resources. Herzberg's research has added weight to the contention that the lower level needs (due to the improved socio-economic status of the worker) are relatively unimportant motivators of behavior. The ultimate goal of these writers is to replace externally imposed control of employee behavior with a heavy reliance on the employee's self-control and self-direction. For Herzberg, the key to such an emphasis lies in the "motivators" found in the work situation. Argyris feels that assigning to employees a part in managing their own jobs will accomplish these results. A self-managed employee is one who can include a degree of planning, organizing, direction, and controlling in the various phases of his job. This can be accomplished by "vertical job enrichment," which enables employees to have a hand in doing some of the planning and control work which had previously been restricted to persons in supervisory and staff functions.

McGregor and Likert present an alternative approach to viewing managerial styles. To provide the opportunity in the job situation for satisfaction of these higher level needs they propose:

A greater degree of subordinate participation in the decision-making process. This participation integrates the needs of the employee with the needs of the organization, by allowing individuals to have a real influence on organizational goals. Responsibility and commitment are increased when employees are offered the opportunity for organizational participation.

The assumption by some management theorists that all workers expect and actively seek self-actualization from their jobs, and that the task of managers is to stress the "motivators" or to allow for a job environment which provides for self-actualizing experiences, would appear to require a high degree of employee commitment to work and the work place. The earlier discussion of Dubin's theory indicates that such a commitment may not be characteristic of all employees.

An examination of the meanings which employees attach to work indicates the applicability of these "new" theories may be suspect. For lower-level occupational groups the perception of work appears to be only in terms of money which provides a means to some off-the-job end; not until employees of higher-level occupational groups were studied did employees become so involved with their work that they perceived the job as being an end in itself. A small percentage of employees in upper-status occupational groups may be the only workers who are concerned with job

involvement and self-actualization experiences on the job.

The following implications and speculations are stated by Dubin:

Viewed from the standpoint of industrial management there are two broad and contradictory influences at work in the society. Work is no longer a central life interest for workers. These life interests have moved out into the community. Yet work was presumably once a central life interest. Much management activity in personnel and industrial relations is implicitly directed at restoring work to the status of a central life interest. Management's efforts and the main drift of social developments work at directly contrary purposes.

The second contradictory influence centers on the location of primary human relationships in the total social fabric. Some groups in management have accepted a philosophy and developed social engineering practices summed up in the phrase "human relations in industry." The major purpose of this movement is to center primary human relations in work and make it functional for productivity. [Dubin predicts that primary human relationships develop only in situations where the social experience is valued by the individual.] At the same time it seems evident that primary human relations are much more located at some place out in the community. The management efforts again seem to be at odds with social reality. . . . The first dilemma is perhaps best highlighted in the pronounced frustration that management practitioners experience with the relative failure of their efforts to engender a sense of participation in their work force. . . . Other efforts have been directed at "participant management" and its latter-day descendant, "group dynamics." Here the chief goal seems to be to make a central life interest out of work by permitting some sharing by employees of decisions affecting their work routines. . . . None of these efforts have been crowned by remarkable success. . . .¹⁵⁰

Those employees who center their lives off the job may neither expect nor need work that allows them

¹⁵⁰Dubin, op. cit., pp. 140-141.

self-actualizing situations. Instead, they adjust to their present situation and seek self-actualization in off-the-job activities.

Basic to the current research is the question: do all employees seek from their work self-actualization and the satisfaction of other high-level needs as Herzberg, Argyris, Likert, and McGregor content? Or do only a small proportion of employees seek self-actualization on the job, as is the contention of Dubin and of other researchers who have studied the meaning which employees attach to their work?

The current research is initiated to shed some light on what appears to be conflicting viewpoint concerning employees of industrial organization. The examination of the relationship between the meaning employees attach to work and what employees want from their jobs has never been analyzed, so far as the author knows. In the following chapters this problem is examined. Before this relationship could be analyzed it was necessary to determine what the employees in the present sample wanted from their jobs and what meaning these same employees attached to work. Chapter III contains an examination of the generality of Herzberg's motivation-hygiene dual-continuum theory. In addition to the examination of this theory an answer is sought to the question: What do the employees sampled want from their jobs?

CHAPTER III

AN EXAMINATION OF THE MOTIVATION-HYGIENE DUAL CONTINUUM THEORY OF MOTIVATION

The importance which the employees studied placed on certain job factors as contributors to satisfying situations and dissatisfying situations is examined in this chapter. The employees' preference for eighteen job factors as contributors to these two situations was obtained from their responses to parts II and III of the questionnaire. (See Appendix I)

These results were analyzed as a test for Herzberg's motivation-hygiene, dual continuum theory of motivation. In summary form this theory states that two independent groups of job factors exist in the job situation. One group of factors, titled Motivators, by their presence lead to satisfying situations, but their absence does not lead to dissatisfying situations. The second group of factors, titled Hygiene factors, lead to dissatisfying situations by their absence or negative presence, but do not lead to satisfying situations by their presence. These two groups of job factors operate independently. The motivators are intrinsic to the job and the hygiene

factors are extrinsic to the job. Herzberg's theory challenges the single continuum theories of motivation, which state that the numerous job factors are not two independent groups and that no distinction exists between motivator and hygiene factors. Rather all factors work together and their presence create job satisfaction, while their absence create job dissatisfaction. All job factors, whether extrinsic or intrinsic to the job, cause a shift along a single continuum, where the two extremes are satisfaction and dissatisfaction. (For a more detailed explanation of each theory, subsequent research, and criticisms, see Chapter II.)

To test Herzberg's theory against the results of the present study the following hypotheses were formulated.

- Hypothesis 1. Motivator factors are primarily related to satisfying situations, regardless of organizational position.
- Hypothesis 2. Hygiene factors are primarily related to dissatisfying situations, regardless of organizational position.
- Hypothesis 3. Most of the job factors are significantly related to both the satisfying and the dissatisfying situations.

Testing these hypotheses allowed certain inferences to be made concerning the question: What do people want from their jobs?

These hypotheses were tested by use of the following methods of data analysis.

Data Analysis

It is important to re-emphasize that a respondent was not questioned if he was satisfied or dissatisfied with his job. He was first asked to recall a particularly satisfying situation and to indicate the extent to which each job factor was important as the source of that satisfaction. Then he was asked to recall a particularly dissatisfying situation and to indicate the extent to which each of these same job factors was important as the source of that dissatisfaction.

The relative importance of a job factor was indicated by the respondent on a 4-point scale. A score of "one" indicated that the factor was lacking as a contributor to the situation; a score of "four" indicated that the factor was of major importance as a contributor to the situation.

The motivators are thought to be factors intrinsic to the job, while the hygiene factors are thought to be extrinsic to the job. The eighteen factors included in the present study contained both extrinsic and intrinsic job factors. In order to determine the truth of the relationships between intrinsic factors and satisfying situation and between extrinsic factors and dissatisfying situation, the mean scores on each of the eighteen job factors were analyzed for both the satisfying and dissatisfying situations.

Ultimately, the researcher desired a list of those job factors which were of greatest and least importance in contributing to these two situations. These lists could then be used to determine the validity of the satisfying situation-motivator-intrinsic relationship, as well as the dissatisfying-hygiene-extrinsic relationship theorized by Herzberg.

If the importance placed upon the eighteen job factors was significantly different for each situation separately, such a list could be obtained. If they were not significantly different, then such a list would be impossible to attain because, in effect, all of the eighteen job factors would have been given approximately equal importance by the respondents.

Two separate analyses of variances, one for the satisfying situation and the other for the dissatisfying situation, were performed for each of the three organizational positions studied. An F ratio was constructed to determine if the mean scores between the eighteen job factors were significantly different.¹

A significant F ratio indicated existence of a significant difference between the job factors as sources of satisfaction for the organizational position studied.

¹For further explanation of analysis of variance technique, see Taro Yamane, Statistics: An Introductory Analysis, 2nd ed. (New York: Harper and Row Publishers, 1967).

This was also true if the computed F was significant for the dissatisfying situation. Because the job factors were of differing importance, a list of the most and least important job factors, based upon their mean scores, would then be meaningful.

The results from the analysis of variance and the subsequent listing of job factors in terms of the order of importance for the two situations provided the information necessary to examine the first two hypotheses as originally stated.

The results of this method of data analysis provided a ranking of the job factors. Examination of these rankings may lead to unwarranted conclusions about the single continuum theory of motivation. The data were further analyzed to examine the relationship between the job factors in more detail than the previous method provided.

The job factor, Recognition, is depicted below to illustrate the analysis performed on all eighteen of the job factors for each of the three organizational positions surveyed.

Job Factor	Satisfying Situation		Dissatisfy- ing Situation		Differ- ence between Means (X-Y)	Pearson product moment cor- relation (r)
	Mean	Std. Devia.	Mean	Std. Devia.		
1. Recog- nition	X		Y			

First, a "t" test was performed on the difference between the mean score for the job factor recognition to determine if the difference in importance was significant. The level of significance was set at .01. If the difference in importance was not significant, then the job factor Recognition was equally important in contributing to both situations, or Recognition was not a greater source of satisfaction when present than dissatisfaction when not present. If the difference in importance was significant the job factor Recognition was more important either by its presence or absence to one of the two situations. The sign of the difference indicated for which situation Recognition was more important as a source of satisfaction/dissatisfaction.

Second, a Pearson product moment correlation coefficient (r) was computed to determine the degree of relationship between the importance of the job factor Recognition to the satisfying situation and to the dissatisfying situation. The level of significance was set at .01. A significant degree of relationship implied that predictions could be made from knowledge of the importance attributed to a factor as a source of satisfaction to the importance of the same factor had as a source of dissatisfaction. The extent to which Recognition by its presence was important to the satisfying situation, the lack of or negative aspect of Recognition was also important to the

dissatisfying situation. In these situations some support would be given to the single continuum theory of motivation. When the degree of relationship was not significant, this implied that few accurate predictions about the job factor's importance for dissatisfaction could be made from knowledge of the importance the employee attributed to the factor as a source of satisfaction. In this situation some support was given for the dual continuum theory of motivation.

These three methods of analysis provided the information necessary to examine the generality of the motivation-hygiene dual-continuum theory of motivation.

The results obtained from these three methods of analysis are presented in the following section together with the conclusions drawn from the data gathered by the present study.

Testing the Hypotheses

This study examines directly two hypotheses related to the original findings of Herzberg, as follows:

1. Motivator factors are primarily related to satisfying situations, regardless of organizational position.
2. Hygiene factor are primarily related to dissatisfying situations, regardless of organizational position.

In his original study, Herzberg found that the five most important job factors contributing to the satisfying situation were all motivators: Achievement, Recognition, Work Itself, Responsibility, and Advancement.

These job factors contributed to feelings of high satisfaction by their presence, but had a minimal effect when absent, on feeling of high dissatisfaction. The job factors, which were found to contribute greatest to the dissatisfying situation by Herzberg, were all hygiene factors. The five most important job factors contributing to the dissatisfying situation were: Company Policy and Administration, Technical Supervision, Salary, Relations with Superior, and Working Conditions. These job factors contributed to feelings of high dissatisfaction by their absence but had a minimal effect, when present, on feelings of high satisfaction.

If the two hypotheses stated above are true, a list of the most important job factors contributing to the satisfying and the dissatisfying situations should approximate the motivator-hygiene factors evolved by Herzberg, for the employees studied.

In order to determine which of the job factors were of greatest importance as contributors to the satisfying situation and which of the job factors were of greatest importance as contributors to the dissatisfying situation, the first method of data analysis was employed. A separate analysis of variance was performed between the mean scores for each of the eighteen job factors for the satisfying situation, and a separate analysis of variance between the mean scores for each of the 18 job factors for

the dissatisfying situations. These two separate analyses of variance were made for each of the three organizational positions separately to determine whether job factor importance was affected by the respondents' organizational position.

In all cases the F ratio clearly indicated significant differences in importance between the job factors as contributors to the satisfying situation and significant differences in importance between the same job factors as contributors to the dissatisfying situation. (For the summary results of these separate analyses of variance, see Tables 40, 41, 42, 43, 44, and 45 in Appendix II.)

Based upon the difference in importance attributed to the job factors surveyed as contributors to the two situations separately, a list of the most important contributors to each situation was evolved. Table 5 presents a list of all the job factors in order of importance, based upon mean scores, as contributors to the satisfying situation for the respondents from the three organizational positions included in the present study. The hygiene factors have all been italicized.

If only the five job factors which were most important for the three organizational positions surveyed are considered, the following conclusions can be made.

The three most important job factors contributing

to the satisfying situation are the same for all three positions surveyed, and are in the same order of importance. The first-line managers were the only group which rated a hygiene factor (Relations with Co-workers) among the five most important factors contributing to the satisfying situation. For the other two groups the five most important factors contributing to the satisfying situation were all motivators.

The five most important job factors shown in Table 5 are not all the same job factors found to be important by Herzberg. Some factors found by Herzberg to be of major importance as leading to the satisfying situation are well down the list of results presented in Table 5. Responsibility, for example, a motivator factor of major importance in Herzberg's original study, is ranked tenth in importance for first-line managers and professional employees, and ninth in importance for the middle managers surveyed. Although these results are not in strict agreement with Herzberg's primary motivators, Hypothesis I cannot be rejected.

The importance of the hygiene factors in contributing to the satisfying situation can be gauged by examining the 5 least important job factors in Table 5. For the middle managers, the five least important job factors contributing to the satisfying situation were all hygiene factors. The first-line manager and professional employees

TABLE 5

MEAN SCORE ORDER OF IMPORTANCE FOR THE EIGHTEEN JOB FACTORS SURVEYED AS CONTRIBUTORS
TO THE SATISFYING SITUATION FOR THE FIRST-LINE MANAGERS, MIDDLE MANAGERS,
AND PROFESSIONAL EMPLOYEES INCLUDED IN THE PRESENT STUDY

JOB FACTOR ORDER OF IMPORTANCE AS CONTRIBUTORS TO THE SATISFYING SITUATION	FIRST-LINE MANAGERS	MIDDLE MANAGERS	PROFESSIONAL EMPLOYEES
1.	Achievement (3.664)	Achievement (3.769)	Achievement (3.773)
2.	Work Itself (3.651)	Work Itself (3.609)	Work Itself (3.674)
3.	Use of Best Abilities (3.496)	Use of Best Abilities (3.478)	Use of Best Abilities (3.502)
4.	Relations with Co-Workers (3.393)	Challenging Assignments (3.296)	Recognition (3.353)
5.	Growth (3.316)	Recognition (3.258)	Challenging Assignments (3.287)
6.	Relations with Supervisor (3.245)	Relations with Co-Workers (2.967)	Growth (3.154)
7.	Security (3.219)	Growth (2.961)	Relations with Co-Workers (3.000)
8.	Challenging Assignments (3.109)	Relations with Supervisor (2.956)	Relations with Supervisor (2.977)
9.	Recognition (3.038)	Responsibility (2.923)	Security (2.767)
10.	Responsibility (2.967)	Security (2.796)	Responsibility (2.751)
11.	Work Group (2.832)	Work Group (2.527)	Technical Supervision (2.624)
12.	Technical Supervision (2.832)	Technical Supervision (2.510)	Work Group (2.458)
13.	Management Policies (2.709)	Promotion (2.445)	Merit Increase (2.370)
14.	Promotion (2.625)	Working Conditions (2.258)	Promotion (2.248)
15.	Working Conditions (2.607)	Merit Increase (2.280)	Working Conditions (2.254)
16.	Merit Increase (2.561)	Management Policies (2.186)	Management Policies (2.000)
17.	Home Life (2.509)	Home Life (1.890)	Home Life (1.751)
18.	Employee Benefits (2.380)	Employee Benefits (1.593)	Employee Benefits (1.419)

rated one motivator, Promotion, among the five least important job factors contributing to the satisfying situation; the other four job factors were all hygiene factors. Thus, for the satisfying situation motivators do appear to be of primary importance in contributing to the satisfying situations while hygiene factors play a minor role.

Herzberg's theory also examines the job factors contributing to the dissatisfying situation. This is tested by Hypothesis Two. The five job factors which were of primary importance in contributing to these situations were, in Herzberg's study, all hygiene factors: Company Policy and Administration, Supervision-Technical, Salary, Interpersonal Relations-Supervision, and Working Conditions. The motivators were found to be of minor importance for this situation. Table 6 presents a list of all 18 job factors in order of importance, based upon mean scores, for the dissatisfying situation by the organizational position of the respondent. The hygiene factors have all been italicized.

If only the five job factors which were of most importance as contributors to the dissatisfying situation for the three organizational positions surveyed are examined, the following conclusions can be made. For all three organizational positions, the five most important job factors contributing to the dissatisfying situation

TABLE 6

MEAN SCORE ORDER OF IMPORTANCE FOR THE EIGHTEEN JOB FACTORS SURVEYED AS CONTRIBUTORS
TO THE DISSATISFYING SITUATION FOR THE FIRST-LINE MANAGERS, MIDDLE MANAGERS,
AND PROFESSIONAL EMPLOYEES INCLUDED IN THE PRESENT STUDY

JOB FACTOR ORDER OF IMPORTANCE AS CONTRIBUTORS TO THE SATISFYING SITUATION		FIRST-LINE MANAGERS	MIDDLE MANAGERS	PROFESSIONAL EMPLOYEES		
1.	Achievement	(2.909)	Achievement	(2.763)	Achievement	(3.104)
2.	Recognition	(2.516)	Use of Best Abilities	(2.741)	Use of Best Abilities	(2.883)
3.	Use of Best Abilities	(2.516)	Responsibility	(2.521)	Challenging Assignments	(2.712)
4.	Challenging Assignments	(2.490)	Challenging Assignments	(2.483)	Responsibility	(2.674)
5.	Promotion	(2.477)	Recognition	(2.478)	Growth	(2.657)
6.	Relations with Supervisor	(2.322)	Growth	(2.373)	Recognition	(2.618)
7.	Security	(2.309)	Promotion	(2.351)	Promotion	(2.596)
8.	Growth	(2.277)	Relations with Supervisor	(2.214)	Management Policies	(2.397)
9.	Responsibility	(2.264)	Management Policies	(2.142)	Security	(2.314)
10.	Work Group	(2.206)	Work Itself	(2.010)	Relations with Supervisor	(2.193)
11.	Work Itself	(2.193)	Security	(1.890)	Work Itself	(2.171)
12.	Technical Supervision	(2.174)	Technical Supervision	(1.879)	Technical Supervision	(2.121)
13.	Management Policies	(2.135)	Work Group	(1.780)	Work Group	(2.027)
14.	Working Conditions	(2.058)	Merit Increase	(1.747)	Merit Increase	(1.977)
15.	Home Life	(1.896)	Home Life	(1.714)	Home Life	(1.834)
16.	Merit Increase	(1.898)	Working Conditions	(1.675)	Working Conditions	(1.812)
17.	Relations with Co-Workers	(1.806)	Relations with Co-Workers	(1.401)	Relations with Co-Workers	(1.668)
18.	Employee Benefits	(1.419)	Employee Benefits	(1.247)	Employee Benefits	(1.309)

were not hygiene factors, but motivators. Based upon these results Hypothesis II cannot be accepted.

The five least important job factors contributing to the dissatisfying situation are hygiene factors in every case. Contrary to Herzberg's theory, the hygiene factors were minimally important in contributing to the dissatisfying situation for the employees studied. This is further highlighted by examining one factor, Working Conditions, which Herzberg found to be of primary importance in contributing to the dissatisfying situation. This job factor is ranked fourteenth in importance by the first-line managers, and sixteenth in importance by the middle managers and professional employees.

When Tables 5 and 6 are compared, the importance of the various job factors surveyed as contributors to the two situations appears to be quite similar. The job factor rankings would seem to indicate that the job factors operate on a single continuum with the two extremes being satisfaction and dissatisfaction. However, Tables 5 and 6 represent only summary rankings; in order to interpret the results correctly, one must examine the relationship between the importance each individual job factor had for the satisfying situation and for the dissatisfying situation. Hypothesis Three was formulated to test this relationship.

3. Most of the job factors are significantly related to both the satisfying and dissatisfying situation.

Tables 7, 8, and 9 represent the summary data from the analysis performed to determine whether such a relationship did exist. These tables represent the summary responses of the first-line, middle managers, and professional employees, respectively.

Columns 5 and 6 were calculated as a way of comparing the importance the job factors had in contributing to the satisfying and dissatisfying situation. Column 5 represents the difference between a job factor as a source of satisfaction and the lack or negative aspect of the same job factor as a source of dissatisfaction. The asterisk in column 5 indicates a significant difference between the mean scores (columns 1 and 3) on a single job factor beyond the .01 level of significance. Column 6 represents the degree of relationship between the importance of the job factor to satisfaction and to dissatisfaction as measured by the coefficient of correlation. The asterisk in column 6 indicates a significant relationship between the importance of the job factor to satisfaction and to dissatisfaction, beyond the .01 level of significance.

For the first-line managers surveyed, 17 of the 18 job factors surveyed were significantly different in their importance for the satisfying and the dissatisfying situations. (Table 7) Only one job factor, Promotion,

TABLE 7

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR FIRST-LINE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence (5)	r (6)
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.625	1.197	2.477	1.160	.158	.240*
Challenging Assignments	3.109	.980	2.490	1.120	.619*	.238*
Recognition	3.038	.871	2.516	1.103	.522*	.086
Relations with Supervisor	3.245	.852	2.322	1.299	.923*	-.053
Relations with Coworkers	3.393	.830	1.806	1.153	1.587*	.012
Technical Supervision	2.832	1.117	2.174	1.164	.658*	-.170
Merit Increases	2.561	1.107	1.858	1.127	.703*	.456*
Achievement	3.664	.604	2.909	1.171	.755*	.175
Working Conditions	2.670	1.029	2.058	1.165	.612*	.118
Responsibility	2.967	.986	2.264	1.202	.703*	.208*
Security	3.219	.945	2.309	1.267	.910*	.287*
Growth	3.316	.928	2.277	1.210	1.039*	.174
Employer Benefits	2.380	1.219	1.419	.849	.961*	.300*
Work Itself	3.651	.668	2.193	1.234	1.458*	.019
Home Life	2.509	1.281	1.896	1.142	.613*	.432*
Work Group	2.870	1.122	2.206	1.278	.664*	.032
Management Policies	2.709	1.180	2.135	1.265	.574*	.138
Use of Best Abilities	3.496	.756	2.516	1.220	.980*	.022
Mean	3.014		2.212		.802*	
Standard Deviation	.385		.324			

N = 155

*p < .01

was not significantly different in the importance attached to it as a contributor to the satisfying and the dissatisfying situation. The possibility of promotion was equally important as a contributor to the satisfying situation as was the absence of promotion for the dissatisfying situation. All of the other 17 job factors were significantly different in their importance for the satisfying and dissatisfying situations, and all seventeen factors were more important as a source of satisfaction as indicated by the positive sign of the difference in column 5.

For the group of middle managers surveyed, similar results are shown in Table 8. Fifteen of the 18 job factors surveyed were significantly different in their importance for the satisfying and the dissatisfying situation, and all 15 factors were more important as a source of satisfaction. Three job factors (Promotion, Effect of the Job on Home Life, and Management Policies) were not significantly different in their importance as contributors to the satisfying and dissatisfying situations.

For the group of professional employees surveyed 15 of the 18 job factors surveyed were significantly different in their importance for the satisfying and the dissatisfying situation. (Table 9) Two of these 15 factors, Management Policies, and Promotion, were more important as a contributor to the dissatisfying situation; the remaining 13 factors were all more important as a

TABLE 8

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR MIDDLE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.445	1.045	2.351	1.170	.094	.244*
Challenging Assignments	3.296	.919	2.483	1.207	.813*	.162
Recognition	3.258	.885	2.478	1.102	.780*	.070
Relations with Supervisor	2.956	.918	2.214	1.272	.742*	.083
Relations with Coworkers	2.967	.919	1.401	.857	1.566*	.128
Technical Supervision	2.510	1.025	1.879	1.151	.631*	.177
Merit Increases	2.280	1.106	1.747	1.049	.533*	.316*
Achievement	3.769	.458	2.763	1.210	1.006*	.079
Working Conditions	2.258	1.007	1.675	1.047	.583*	.162
Responsibility	2.923	1.169	2.521	1.198	.402*	.240*
Security	2.796	.936	1.890	1.185	.906*	.247*
Growth	2.961	.996	2.373	1.219	.588*	.242*
Employer Benefits	1.593	.883	1.247	.645	.346*	.359*
Work Itself	3.609	.651	2.010	1.235	1.599*	-.001
Home Life	1.890	1.152	1.714	1.117	.176	.329*
Work Group	2.527	1.087	1.780	1.160	.747*	.070
Management Policies	2.186	1.128	2.142	1.214	.044	.169
Use of Best Abilities	3.478	.724	2.741	1.210	.737*	.134
Mean	2.761		2.078		.683*	
Standard Deviation	.581		.430			

N = 182

*p < .01

TABLE 9

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR PROFESSIONAL EMPLOYEES

Job Factors	Satisfying Situations		Dissatisfying Situations		Difference	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.248	.991	2.596	1.135	-.348*	.280*
Challenging Assignments	3.287	.919	2.712	1.124	.575*	.170
Recognition	3.353	.748	2.618	1.084	.735*	.111
Relations with Supervisor	2.977	.885	2.193	1.266	.784*	-.040
Relations with Coworkers	3.000	.827	1.668	1.067	1.332*	.056
Technical Supervision	2.624	1.073	2.121	1.219	.503*	.081
Merit Increases	2.370	1.097	2.016	1.074	.354*	.383*
Achievement	3.773	.468	3.104	1.089	.669*	.133
Working Conditions	2.254	.964	1.812	1.071	.442*	.244*
Responsibility	2.751	1.131	2.674	1.188	.077	.334*
Security	2.767	.880	2.314	1.214	.453*	.104
Growth	3.154	.846	2.657	1.195	.497*	.237*
Employer Benefits	1.419	.786	1.309	.723	.110	.664*
Work Itself	3.674	.545	2.171	1.197	1.503*	.009
Home Life	1.751	1.081	1.834	1.149	-.083	.460*
Work Group	2.458	1.064	2.027	1.163	.431*	.123
Management Policies	2.000	1.107	2.397	1.215	-.397*	.176
Use of Best Abilities	3.502	.661	2.883	1.171	.619*	.224*
Mean	2.742		2.284		.458*	
Standard Deviation	.644		.451			

N = 181

*p < .01

contributor to the satisfying situation. Three of the 18 job factors (Effect of the Job on Home Life, Employee Benefits, and Responsibility) were not significantly different in their importance as contributors to the satisfying and the dissatisfying situations.

These results indicate that, for the majority of job factors surveyed, their importance as a source of satisfaction is different from their importance as a source of dissatisfaction. The relationship alluded to by the single continuum theory would thus, initially, seem not to be a perfect one. For the majority of job factors surveyed (17/18, 15/18, and 13/18) their presence had a stronger effect in creating the satisfying situation than their absence did in creating the dissatisfying situation the respondents were thinking about. For only professional employees were any of the job factors more important, by their absence, as a contributor to the dissatisfying situation than to the satisfying situation; in this case the two job factors were Management Policies and Promotion.

Based upon these results alone it appears that addition to the majority of the job factors would have a stronger effect in contributing to the satisfying situation than the deletion of these same job factors would have in contributing to the dissatisfying situation.

The degree of relationship between the importance of the job factors to the satisfying situation and to the

dissatisfying situation was further analyzed by computation of a Pearson product moment correlation coefficient for each job factor. These coefficients are presented in Column 6 of Tables 7, 8, and 9, and those which are significant at the .01 level are marked with an asterisk.

For the first-line and middle managers surveyed, 11 of the 18 coefficients were not significant. For the professional employees surveyed 10 of the 18 coefficients were not significant. When the correlation coefficients are not significant, the importance of the job factors as a contributor to the satisfying situation is unrelated to their importance as a contributor to the dissatisfying situation. For these job factors the single continuum theory cannot be supported. Conceptually, if a job factor had high importance as a contributor to the satisfying situation, the lack of or negative presence of the same job factor may or may not have high importance as a contributor to the dissatisfying situation.

For the first-line and middle managers surveyed, seven of the job factors do show a significant relationship to exist; for the professional employees surveyed, eight of the job factors surveyed do show a significant relationship. Which job factors show a significant relationship differ somewhat between the organizational positions surveyed. Table 10 identifies these job factors by organizational position:

TABLE 10

JOB FACTORS THAT HAVE A SIGNIFICANT DEGREE OF RELATIONSHIP
FOR EACH OF THE THREE ORGANIZATIONAL POSITIONS SURVEYED

First-line Managers	Middle Managers	Professional Employees
Promotion Merit increase	Promotion Merit increase	Promotion Merit increase
Responsibility	Responsibility	Responsi- bility
Employee benefits	Employee benefits	Employee benefits
Home life Security	Home life Security	Home life
Challenging assignments	Growth	Growth
		Use of best abilities Working conditions

For these job factors, the single continuum--
ranging from satisfying to dissatisfying--is partially sub-
stantiated.

For these job factors the single continuum theory
could not be rejected; however, when columns 5 and 6 of
Tables 7, 8, and 9 are examined together, the purity of
the single continuum relationship seems to be in question.
For the first-line managers surveyed, only one factor,
Promotion, has a significant degree of relationship, as
well as no significant difference in importance attributed
to the factor as a contributor to the satisfying situation
and to the dissatisfying situation. Six of the 7 factors,

which have a significant degree of relationship, are more important as a contributor to the satisfying situation than the dissatisfying situation. These six factors, even though related, have a stronger effect by the presence in contributing to the satisfying situation than they have by their absence or negative presence as contributing to the dissatisfying situation. The same observations hold true for 5 of the 7 factors which have a significant degree of relationship for the middle managers surveyed, and for 5 of the 8 factors which have a significant degree of relationship based upon the response of the professional employees surveyed.

Within the list of the job factors which had a significant degree of relationship, the number of intrinsic and extrinsic job factors is approximately even. Three intrinsic job factors, and four extrinsic job factors for the first-line and middle managers; and four intrinsic and four extrinsic job factors for the professional employees surveyed. In the majority of cases, for the job factors shown in Table 10, even though a significant degree of relationship does exist, these factors were not of prime importance as contributors to either the satisfying situation or the dissatisfying situation.

Based upon these results, Hypothesis Three cannot be accepted. For a majority of the job factors surveyed, knowledge of their importance in contributing to the

satisfying situation cannot be used to infer their importance in contributing to the dissatisfying situation. Moreover, for a majority of the job factors their relationship to satisfaction and dissatisfaction is in direct opposition to the single continuum theory of motivation.

Although the ranking presented in Tables 5 and 6 seems to indicate a high degree of similarity between the job factors' importance for the satisfying situation and for the dissatisfying situation, care must be taken in interpreting these results in terms of the dual continuum theory of motivation. As Table 10 shows, only a minority of job factors surveyed show an existing relationship between the two situations.

Summary

The results of the present study tend to agree with those studies cited in Chapter II, which only partially agree with the Herzberg motivation-hygiene dual continuum theory.

The majority of job factors surveyed do not appear to operate on a single continuum where the extremes are satisfaction and dissatisfaction. By their presence, these job factors show varying degrees of importance in contributing to the satisfying situation; however, the levels of importance were not significantly related to the importance the same job factors had in contributing to the dissatisfying situation. These results cannot be

used to refute Herzberg's theory that job factors exist on a dual continuum. For those job factors, where the degree of relationship was not significant, the most that can be said is that knowledge of their importance in contribution to the satisfying situation do not imply the level of importance the same job factor will have in contributing to the dissatisfying situation. Thus, although the results of the present study do not offer definitive proof that the dual continuum does exist, it does not offer definitive proof that it does not exist for a majority of the job factors surveyed. The current study cannot reject Herzberg's findings that satisfiers and dissatisfiers are operative on two separate continuum.

The current study does lend proof to the fact that the motivators represent a higher degree of importance than hygiene factors in contributing to the satisfying situation. However, contrary to Herzberg's theory, the motivators also were more important than the hygiene factors in contributing to the dissatisfying situation.

Although the relationship between the importance the individual employees attached to the job factors surveyed in contributing to the satisfying and the dissatisfying situation is not clear, the motivators appear an important source of both satisfaction and dissatisfaction and that the hygiene factors were relatively unimportant as a source of both satisfaction and dissatisfaction.

In response to the originally stated question: What do employees want from their jobs? the inference can be made from these findings that both high feelings of satisfaction and dissatisfaction appear to turn on the presence or absence of the motivators. Noting, as indicated above, that the direct relationship is not clear. For Herzberg, the motivators provide the individual the opportunity for self-actualization through the job. However, contrary to Herzberg's findings, the absence of self-actualizing experiences for the respondents of the present study also was of prime importance in producing the dissatisfying situations.

Managerial and professional employees may be expected, based upon their level of achievement, occupational status, and job design, to find their highest satisfaction and dissatisfaction with those factors which provided self-actualization. However, Herzberg's original study was based upon a group of professional employees similar to those included in the present study, with results contrary to the present study. The contradictory results appear to be based upon more than the occupational level of respondents surveyed. This is further highlighted from the results presented for all three of the occupational groups surveyed. Not one group responded as theorized by the basic motivation-hygiene theory.

A more thorough analysis of the individual

respondent may clear up what would appear to be a partial negation of Herzberg's motivation-hygiene theory. Herzberg also recognized the fact that other variables may affect the results of his original study when he stated:

Future research may be able to pinpoint the order of importance of the various satisfiers and dissatisfiers. Even better, we may be able to relate any given order of importance either to the situation or to the kind of people with whom we are dealing.²

In the following chapter, the meaning which those employees sampled attached to their work is examined in an attempt to understand "the kind of people with whom we are dealing."

²Frederick Herzberg, et al., The Motivation to Work (New York: John Wiley and Son, 1959), p. 112.

CHAPTER IV

THE CENTRAL LIFE INTERESTS OF EMPLOYEES STUDIED

In the present chapter the generality of Dubin's Central Life Interest theory is examined. The theory is an outgrowth of Dubin's study of industrial workers' behavior in which he analyzed three problems. For each problem Dubin made a proposition or generalized prediction about employees' behavior; to analyze these propositions, five hypotheses were formulated. The Central Life Interest questionnaire provided the empirical information to test these hypotheses. Below are outlined, as stated by Dubin,¹ the problems he studied, the propositions he made, and the hypotheses he formulated to test the propositions. (For a more detailed discussion of these problems, propositions, hypotheses, and theory, see Chapter II.)

Problem 1. Work as a central life interest.

Proposition 1. Individuals will exhibit adequate social behavior in sectors of social experience in which participation is mandatory but not valued.

¹Robert Dubin, "Industrial Workers' World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan. 1956), 131-142.

Hypothesis 1. A significant proportion of industrial workers will rate non-job interest high in their value orientation on the Central Life Interest questionnaire.

Problem 2. The role and importance of primary social relations on the job.

Proposition 2. Primary human relations take place only in situations where social experience is valued by the individual.

Hypothesis 2. A significant proportion of industrial workers will be non-job oriented with respect specifically to informal group experiences, when measured on the relevant portion of the Central Life Interest questionnaire.

Hypothesis 3. A significant proportion of industrial workers will not respond to work as a valued social experience when this is tested by the general experience section of the Central Life Interest questionnaire.

Problem 3. Some sources of organizational attachment.

Proposition 3. Individual attachment to a situation in which his social experience is not valued by him will be to the most physically and directly obvious characteristics of that situation.

Hypothesis 4. A significant proportion of industrial workers will be job-oriented for their organizational experience when measured on the organizational section of the Central Life Interest questionnaire.

Hypothesis 5. A significant proportion of industrial workers will be job-oriented for their experiences with technological aspects of their environment when measured on the technological section of the Central Life Interest questionnaire.

In Dubin's original study of industrial workers these five hypotheses could not be rejected and the results lent support to the three propositions. In the present

study, the responses of managerial and professional employees to the CLI questionnaire have been analyzed to test the generality of Dubin's conclusions. The five hypotheses relating to the CLI of employees were basically the same as those formulated by Dubin with minor changes to incorporate the employees studied. In addition, the CLI questionnaire provided the means of classifying the value orientation of the respondents as job-oriented or non-job-oriented. By definition, employees in each classification attach different meanings to work and the workplace. Thus, partial information is provided to answer the question: "What is the meaning of work for the employees studied?"

The following methods of data analysis were used to reach these objectives.

Data Analysis

Each response to the 32 statements from the Central Life Interest questionnaire was individually scored as job-oriented, non-job-oriented, or indifferent. Each respondent was then classified, by the scoring procedure discussed in Chapter II, as either job-oriented or non-job-oriented in his total value orientation. Within the thirty-two questions, four groups of eight questions each were then separately scored to obtain a job-oriented or non-job-oriented score for four types of relations: informal, general, formal, and technical. For each organizational position studied a frequency count was obtained for those

scoring job-oriented and those who scored non-job-oriented on the five dimensions of the Central Life Interest questionnaire. These frequency counts were used in testing the five hypotheses.

In some instances a cursory examination of the data was sufficient to accept or reject the hypothesis. The preponderance of either job-oriented or non-job-oriented responses to one dimension of the Central Life Interest questionnaire indicated that a significant difference did, in fact, exist between the way the respondents answered the questions contained in that section. In some cases a cursory examination of the data did not indicate whether a significant proportion of those responding were job-oriented or non-job-oriented. In these instances a more stringent method of analysis was chosen. The nature of the data (classified frequencies) dictated the use of Chi-Square analysis.²

Chi-Square analysis provided a method whereby the hypothesis relating to the Central Life Interests of the employees could be tested. The analysis provided information to determine if the frequency observed in the sample studied deviated significantly from some theoretical or expected population frequency.

The general formula for Chi-Square is:

²For more detailed presentation of Chi-Square Analysis see Taro Yamane, Statistics: An Introductory Analysis, 2nd ed. (New York: Harper and Row Publishers, 1967).

$$\chi^2 = \frac{(O - E)^2}{E}$$

O = observed frequency

E = the corresponding expected frequency.

To test whether the observed frequencies deviate significantly from some expected frequency, an expected frequency distribution was necessary. This was accomplished by two methods.

First, the expected frequency was based upon a hypothesis of equally distributed frequency, i.e., 50 per cent of the respondents were job-oriented, and 50 per cent were non-job-oriented.

In all of Dubin's hypotheses the word "significant" is utilized without definition. Assuming that all employees are job-oriented, or that a large percentage are job-oriented, it could be argued that any number of non-job-oriented responses is significant. From Dubin's hypotheses, the inference was made that "significant" is not based upon the sheer size of either the job-oriented or non-job-oriented responses, but is based upon the magnitude of the difference existing between the job-oriented and non-job-oriented responses.

To determine whether a significant difference exists between the proportion of employees who are job-oriented and non-job-oriented, a preliminary null hypothesis was formulated. The null hypothesis became: there is no significant difference between the proportion of

job-oriented and non-job-oriented responses of individuals in the groups studied. The following general format was used to test this hypothesis.

Preference for a social experience by employee organizational position	(O) Observed frequency	(E) Expected frequency	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
Job-oriented		50% of N			
Non-job-oriented		50% of N			
Total N					$\Sigma = \chi^2$

Based upon the Chi-Square value obtained, the null hypothesis of no significant difference between the proportion of job-oriented and non-job-oriented responses of individuals in the groups studied was either accepted or rejected. These results were then used to provide information whereby inferences were made about Dubin's five hypotheses. If the null hypothesis was accepted, inferences were made that the data obtained from the present study did not allow support to be given to the hypothesis that a significant proportion of the employees studied would either be job-oriented or non-job-oriented on one section of the CLI questionnaire. If the null hypothesis was rejected, inferences were made that the data obtained from the present study did not allow the hypothesis that a significant proportion of the employees studied would be either job-oriented or non-job-oriented in their responses

to one section of the CLI questionnaire to be rejected.

The results from testing the null hypothesis clearly show nothing about the size of the non-job-oriented responses but rather accepts or rejects the hypothesis that a difference between the proportion of job-oriented or non-job-oriented responses did exist based upon the assumption of equally distributed responses.

The results of the present study also allow a comparison to be made between industrial workers, managers, and professional employees. A Chi-Square test was constructed to determine if the proportions of industrial workers' responses differ significantly from the proportion of managers', and professional employees' responses.

In order to determine whether the industrial workers' responses differed significantly from the responses obtained by the present study, the expected frequencies were based upon the proportion of job-oriented and non-job-oriented responses found by Dubin. The same format was used to determine a Chi-Square value as described above, but the expected frequencies were calculated using Dubin's final results. A significant Chi-Square value was interpreted to mean that the industrial workers studied differed significantly from the present group studied in their response to the CLI questionnaire. A Chi-Square value that was not significant led to the conclusion that the responses to the CLI questionnaire

for the industrial workers studied and the employees of the present study did not differ significantly.

These methods of data analysis allowed for a more precise evaluation of the generalizations Dubin draws from his research.

Three homogeneous groups were included in this study. A Chi-Square test was made to determine if the frequencies observed were significantly different between the groups studied. This was accomplished by analyzing the three groups two ways. First, only the first-line and middle managers' responses were compared. Secondly, the response of all three groups of employees studied were compared.

The Chi-Square value was calculated by the standard formula previously mentioned. The two managerial groups are shown below to depict the general format used for this.

Organizational Preference for a social experience as
position of measured by the CLI questionnaire
respondent

	Job-oriented	Non-Job oriented	Total observed
First-line managers	Observed (expected)	Observed (expected)	N3
Middle managers	Observed (expected)	Observed (expected)	N4
Total observed	N1	N2	N5

The expected frequency for each cell was determined by the following general formula:

$$\text{Cell expected frequency} = \frac{(\text{marginal column total})(\text{marginal row total})}{\text{total number}}$$

Thus, the expected frequency for the first-line managers who are job-oriented would be:

$$E = \frac{(N1)(N3)}{(N5)}$$

A significant Chi-Square value led to the conclusion that the groups studied did differ significantly in their response to that section of the CLI questionnaire. A Chi-Square value that was not significant led to the conclusion that the groups studied did not differ significantly in their response to that section of the CLI questionnaire.

Testing the Hypotheses

The first hypothesis was formulated by Dubin to determine if individual preference for work and the workplace has changed. The historical assumption has been that work and the workplace are valued social experiences. The following hypothesis was constructed to determine if individual preference for work and the workplace has shifted to a position of necessary or mandatory social experience no longer valued as an end in itself. The hypothesis as adapted for the present study became:

Hypothesis 1. A significant proportion of the employees studied will rate non-job interests high in their value orientation, regardless of organizational position.

The frequencies obtained from scoring the total CLI questionnaire were used to test this hypothesis. The results for the sample studied in total and by organizational position, as well as Dubin's results, are shown in Table 11.

TABLE 11

VALUE ORIENTATION OF FIRST-LINE MANAGERS, MIDDLE MANAGERS, AND PROFESSIONAL EMPLOYEES STUDIED, AND INDUSTRIAL WORKERS STUDIED BY DUBIN

Value Orientation	Employees' Studied Responses									
	Indus- trial workers (Dubin)		Total Re- sponse for employees studied		First- line managers		Middle managers		Profes- sional employees	
	#	%	#	%	#	%	#	%	#	%
Job-oriented	118	24.0	241	46.5	69	44.5	96	52.7	76	42.0
Non-job-oriented	373	76.0	277	53.5	86	55.5	86	47.3	105	58.0
Total N	491		518		155		182		181	

The significant proportion of non-job-oriented responses (3 out of 4) for the industrial workers studied by Dubin led him to the conclusion that for a significant proportion of the industrial workers studied, work and the workplace are no longer considered valued social experiences. Factory work may now very well be viewed by industrial workers as a means to an end.³

Based upon the results of the present study, such

³Dubin, p. 135.

a generalization seems to be questionable for the managerial and professional employees studied. The total population studied did rate non-job-oriented interests higher (277) than job-oriented interest (241) in their value orientation. This relationship also holds true for two of the three job classifications studied: first-line managers and professional employees. However, the magnitude of the difference between the non-job-oriented and job-oriented responses is not as large as that found by Dubin. The significance of this difference was tested against the 50-50 hypothesis. The resulting Chi-Square values for the total population studied and for each separate organizational position are shown in Table 12.

The responses were then analyzed to determine if there was a difference in response between the organizational positions studied. The resulting Chi-Square values for the managerial groups and for all three groups studied are shown in Table 13.

A cursory examination of Dubin's results compared to the results of the present study was sufficient to show that the results differ significantly between the two studies. The Chi-Square values are not presented, but did prove that this difference was highly significant.

From these analyses, the following conclusions can be made for these employees studied. The value orientation of the managerial and professional employees reported in

TABLE 12

CHI-SQUARE VALUES OBTAINED WHEN THE 50-50 HYPOTHESIS
FOR EXPECTED FREQUENCIES WAS TESTED AGAINST THE
OBSERVED FREQUENCIES FOR THE EMPLOYEES'
VALUE ORIENTATIONS

Group Tested	Chi-Square Value	
Total population	2.50	
First-line managers	1.8646	
Middle Managers	.5494	
Professional employees	4.646	
Significance level	.05	.01
Criteria for one degree of freedom	3.84	6.64

TABLE 13

CHI-SQUARE VALUES OBTAINED WHEN THE RESPONSE BY
ORGANIZATIONAL POSITION WAS ANALYZED

Groups' responses analyzed	Chi-Square Value
1. Between managerial groups (first-line, and middle managers)	2.2757 (1 degree of freedom)
2. Between all groups responding (first-line, middle managers, and professional employees)	4.5620 (2 degrees of freedom)
Significance	.05
Criteria for:	
1 degree of freedom	3.84
2 degrees of freedom	5.99

this research differs significantly from the industrial workers studied by Dubin. The fact that more industrial workers saw their job as a means to an end than managerial or professional employees may be explainable by the demands placed upon each group by their jobs. The larger proportion of job-oriented responses in these groups may indicate that in order to survive within the corporate structure, the job is considered more central than off-the-job activities.

Only the professional employees exhibited a significant enough difference between those who were job-oriented and those who were non-job-oriented to reject the hypothesis of a 50-50 split. Thus, it can be concluded that for professional employees the data do not allow Hypothesis One to be rejected. However, for first-line and middle managers, there was no significant difference between the frequency of people who are job-oriented and those who are non-job-oriented in their value orientation; Hypothesis One cannot be accepted for first-line and middle managers studied.

Table 13 indicates that organization position did not make a difference in the frequency breakdown of job-oriented and non-job-oriented responses to the total CLI questionnaire. Even so, there were more job-oriented middle managers than non-job-oriented middle managers, and more non-job-oriented first-line managers and

professional employees than job-oriented first-line managers and professional employees. The difference between their responses, however, was not statistically significant. These results suggest that job orientation does not increase as one's position in the organizational hierarchy rises, nor as the professional status of the individual increases.

For approximately 50 per cent of the managers and 58 per cent of the professional employees work was not a valued social experience. They found their preferred human associations and preferred areas of behavior outside of employment. Although these represent substantial percentages, based solely upon their size, it is impossible to concur with Dubin's conclusion that these are increasing without knowledge of changes in their levels over time. Hypothesis One, therefore, can only be accepted or rejected based upon the results presented (i.e., the test of the 50-50 split in response).

Noteworthy, at this point, is that the professional employees had the lowest proportion of job-oriented responses of all the three groups studied. The implications of these findings and further conclusions will be discussed after the results pertaining to all of the hypotheses have been presented.

Dubin's formulation of Hypotheses Two and Three is based upon partial acceptance of the first proposition

or generalization, i.e., that work and the workplace are now viewed as mandatory or necessary social behavior. Dubin's acceptance that work and the workplace are no longer a valued social experience leads him to an examination of the consequences of this situation. The present consequence under study is that individual preference for primary human relations⁴ is no longer centered around work and the workplace, because work is not valued by the individual employee. Hypotheses Two and Three were formulated to examine this consequence.

Hypothesis Two as adapted for the present study became:

Hypothesis 2. A significant proportion of the employees studied will be non-job-oriented with respect to informal group experiences, when measured on the relevant portion of the CLI questionnaire, regardless of organizational position.

The scoring of the eight statements for informal group experiences⁵ were used to test this hypothesis.

Such statements as: "I prefer to have as friends, . . ."

⁴Primary human relation--The relations that occur in groups where the interaction is face-to-face, continuous, intimate, and shared over a wide range of subjects. Robert Dubin, "Industrial Workers' World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan. 1956), p. 133.

⁵Informal group experiences--Those relations between people that are not directly a product of an official relationship in an organization or related positions in a division of labor. Robert Dubin, "Industrial Workers' World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan. 1956), p. 135.

"The people I count on most when I need help are, . . ."
and "When I am not with them, the people I miss most are,
. . ." were included in these eight questions.

The results for the sample studied in total and
by organizational position, as well as Dubin's results,
are shown in Table 14.

TABLE 14

THE PREFERENCE FOR INFORMAL GROUP EXPERIENCE OF
FIRST-LINE MANAGERS, MIDDLE MANAGERS, AND
PROFESSIONAL EMPLOYEES STUDIED AND
INDUSTRIAL WORKERS STUDIED BY DUBIN

Preference for informal groups experience	Employees' Response in Present Study									
	Indus- trial workers (Dubin)		Total re- sponse for employees studied		First- line managers		Middle managers		Profes- sional employees	
	#	%	#	%	#	%	#	%	#	%
Job- oriented	44	9.0	92	17.8	27	17.4	34	18.7	31	17.1
Non-job- oriented	447	91.0	426	82.2	128	82.6	148	81.3	150	82.9
Total N	491		518		155		182		181	

A cursory examination indicated that the non-job-oriented responses were, in every case, significantly greater than the job-oriented responses.

Table 15 represents the computed Chi-Square values for the analysis between groups responding to the informal group experience section of the CLI questionnaire. There was no significant difference between the way the groups

studied responded to the informal section of the CLI questionnaire.

TABLE 15

CHI-SQUARE VALUES OBTAINED WHEN THE RESPONSE TO THE
INFORMAL RELATIONS SECTION OF THE CLI
QUESTIONNAIRE WERE ANALYZED BY
ORGANIZATIONAL POSITION

Groups' responses analyzed	Chi-Square value
1. Between managerial groups (first-line and middle managers)	.0973 (one degree of freedom)
2. Between all groups responding	1.568 (two degrees of freedom)
Significance	.05
Criteria at:	
one degree of freedom	3.84
two degrees of freedom	5.99

A cursory examination of the resulting proportions obtained from Dubin's study when compared to the present study results also precluded the necessity of including these Chi-Square values. The results of these two studies did differ significantly.

Based upon these results, the following conclusions can be made.

There is a significant difference between Dubin's industrial workers' response to the informal group experience section of the CLI questionnaire and those managerial and professional employees studied. Those employees sampled

in the present study have a larger preference for informal group experiences centering on the job than did the industrial workers surveyed by Dubin. This preference could be attributed to the wider circle of possible informal relationships that managerial and professional employees have available to them; thus increasing the probability of forming meaningful informal association on the job.

Even though there is a larger proportion of job-oriented responses to the informal section than made by industrial workers, the overshadowing proportion of non-job-oriented responses lead to the acceptance of Hypothesis Two for the employees studied. Approximately 18 per cent of those employees responding preferred the informal group life that is centered on the job. However, 82 per cent of those employees preferred the informal associations and contacts found in the community, among friends, and in the family.

A third hypothesis was formulated to secure further information concerning the proposition that work is no longer a valued social experience. This hypothesis, as adapted for the present study, became:

Hypothesis 3. A significant proportion of the employees studied will not respond to work as a valued social experience when tested by the general experience section of the CLI questionnaire, regardless of organizational position.

This hypothesis was formulated by Dubin to obtain a direct indication of work and the workplace as a valued social experience. Eight statements were constructed and titled as the general experience section of the CLI questionnaire. Here is an example of these statements. "I am most interested in, . . ." "The most pleasant things I do are concerned with, . . ." and "When I am worried, it is usually about. . . ." These questions relate to the activities that give pleasure, satisfaction, or general rewards to the respondent. The respondents' preference for these activities provided a direct indication of the degree of emotional impact which work and the workplace had for the respondents.

The results of the sample studied in total and by organizational position, as well as Dubin's results, are shown in Table 16. A cursory analysis of the data indicated the results were in the predicted direction, i.e., more non-job-oriented responses than job-oriented responses. However, the magnitude of the differences is not of such great proportion that a conclusion can be reached about the truth of the hypothesis.

The Chi-Square test was performed on this data against the hypothesis of equally distributed responses. These Chi-Square values are presented in Table 17.

For the middle managers studied, their responses are not significantly different from the assumed 50-50

TABLE 16

THE PREFERENCE FOR GENERAL EXPERIENCES OF FIRST-LINE
MANAGERS, MIDDLE MANAGERS, PROFESSIONAL EMPLOYEES
STUDIED AND FOR THE INDUSTRIAL WORKERS
STUDIED BY DUBIN

Preference for general experience	Employees of Present Study									
	Indus- trial workers (Dubin)		Total re- sponse for employees studied		First- line managers		Middle managers		Profes- sional employees	
	#	%	#	%	#	%	#	%	#	%
Job- oriented	74	15.0	196	37.8	47	30.3	81	44.5	68	37.6
Non-job- oriented	417	85.0	322	62.2	108	69.7	101	55.1	113	62.4
Total N	491		518		155		182		181	

TABLE 17

CHI-SQUARE VALUES OBTAINED WHEN THE 50-50 HYPOTHESIS
FOR EXPECTED FREQUENCIES WAS TESTED AGAINST THE
OBSERVED FREQUENCIES FOR THE EMPLOYEES'
GENERAL RELATIONS

Group Tested	Chi-Square Value	
Total populations	30.6	
First-line managers	24.06	
Middle managers	2.196	
Professional employees	11.187	
Significance	.05	.01
Criteria for one degree of freedom	3.84	6.64

split; thus, the data do not allow Hypothesis Three to be accepted for this group. However, for first-line managers and professional employees studied, the responses were significantly different from the assumed 50-50 split; therefore, for first-line managers and professional employees studied, Hypothesis Three cannot be rejected.

Table 18 indicates that the three groups studied did respond differently to the general experience section of the CLI questionnaire; as managerial and professional status is increased, the job becomes more important as a source of emotional impact. This conclusion is reinforced from the information presented in Table 16. The job-oriented responses of the employees of this study were twice as large as the industrial workers whom Dubin sampled.

TABLE 18

CHI-SQUARE VALUES OBTAINED WHEN THE RESPONSE TO THE
GENERAL EXPERIENCE SECTION OF THE CLI QUESTIONNAIRE
WAS ANALYZED BY ORGANIZATIONAL POSITION

Group responses analyzed	Chi-Square value	
1. Between managerial groups	7.180	(one degree of freedom)
2. Between all groups responding	12.117	(two degrees of freedom)
Significance	.05	.01
Criteria at		
one degree of freedom	3.84	6.64
two degrees of freedom	5.99	9.21

The employees of this study found more emotional satisfaction on the job and this emotional satisfaction increased across the two managerial levels studied. These results may be explained by the fact that the managers and professional employees studied in all probability took a longer run view of their employment with the present company; their career patterns were well-defined, thus allowing them to become more emotionally involved with the company. However, the emotional impact of the job was not strong enough among first-line managers and professional employees to create a majority of job-oriented responses. Of those middle managers surveyed, the preference for the location of those activities sampled which gave pleasure, satisfaction, or general rewards to the employee is approximately evenly split between the job and off the job location.

Proposition Two, as stated by Dubin, is given some support by the results of the present study. A greater proportion of individuals were job-oriented on the general experience section than on the informal relations section. Had there been a greater proportion of job-oriented responses on the informal relations section than on the general experience section, the conclusion could be that some primary relations take place in situations that are not valued by the individual.

The conclusion cannot be made that the preference

for primary human relations determines the value of the job. For this to be true an equal proportion of job-oriented responses would exist between general experience section of the CLI questionnaire and the informal relations section. In no case, Dubin's results included, is this relationship present. Other factors in the job apparently determine whether the job is a valued social experience rather than the preference for primary human relations alone. It is unclear whether the informal relations preferred off the job are not, in fact, the results of relationships formulated on the job. This may be pertinent in explaining the results of the present study. Due to the dominance of this participating firm in the town an attempt to separate on-the-job versus off-the-job primary relations may not be meaningful. As one professional employee wrote on the CLI questionnaire:

Several questions deal with people in the community and people at work. In _____ (name of the town) these are one and the same in most cases.

The interdependence of jobs on the professional and middle management level, and the high degree of homogeneity of these employees' interests, may result in primary relations formulated off the job that are a result of relationships dictated by the job. Therefore, some individuals may define these as off-the-job relations rather than on-the-job relations. Primary relations may be thought of in an off-the-job context, even though they

are formulated in an on-the-job situation.

Hypotheses Four and Five were formulated by Dubin to determine whether there are some sources of organizational attachment or loyalty to a situation that is not a valued social experience for the individual. The two sources of probable attachment tested by Dubin were the experiences in formal organizations and the experiences with technology.

Hypothesis Four, as adapted for the present study, and the results obtained are now presented.

Hypothesis 4. A significant proportion of the employees studied will score job-oriented for their organizational experiences when measured on the organizational section of the CLI questionnaire, regardless of organizational position.

The score on eight statements, which sampled organizational experiences,⁶ were used to test this hypothesis. A sample of these statements are: "I am happier if I am praised for doing a good job," "It is easier for me to take a chewing out," and "I would much rather be a leader in. . . ."

The results for the sample studied in total and by organizational position, as well as Dubin's results, are shown in Table 19.

⁶ A sampling was made of typical relationships between members and organizations. Hiring, joining, firing, disciplining, rewarding, directing, and ordering are illustrative of relationships of this sort. Robert Dubin, "Industrial Workers! World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan. 1956), p. 137.

TABLE 19

THE PREFERENCE FOR ORGANIZATIONAL EXPERIENCES OF
FIRST-LINE MANAGERS, MIDDLE MANAGERS, AND
PROFESSIONAL EMPLOYEES STUDIED, AND THE
INDUSTRIAL WORKERS STUDIED BY DUBIN

Preference for organiza- tional experiences	Results of Present Study									
	Indus- trial workers (Dubin)		Total re- sponse for employees studied		First- line managers		Middle managers		Profes- sional employees	
	#	%	#	%	#	%	#	%	#	%
Job- oriented	300	61.0	439	84.7	134	86.5	163	89.6	142	78.5
Non-job- oriented	191	39.0	79	15.3	21	13.5	19	10.4	39	21.5
Total N	491		518		155		182		181	

A cursory analysis of these results was sufficient to reject the hypothesis that 50 per cent of the respondents were job-oriented and 50 per cent non-job-oriented for the three occupational groups studied. Evident also is that the results of the present study differ significantly from Dubin's results.

Table 20 shows the Chi-Square values obtained when the three groups' responses to the organizational experience section of the CLI questionnaire were analyzed to determine if their responses differed significantly between the groups studied. Based upon these results, the following conclusions can be made.

The data do not allow for Hypothesis Four to be

TABLE 20

CHI-SQUARE VALUES OBTAINED WHEN THE RESPONSES TO THE ORGANIZATIONAL EXPERIENCE SECTION OF THE CLI QUESTIONNAIRE WAS ANALYZED BY ORGANIZATIONAL POSITIONS OF RESPONDENTS

Groups Analyzed	Chi-Square value	
1. Between managerial groups	.7717 (one degree of freedom)	
2. Between all three groups studied	9.1814 (two degrees of freedom)	
Significance level	.05	.01
Criteria for		
one degree of freedom	3.84	6.64
two degrees of freedom	5.99	9.21

rejected. Based upon those employees studied, a significant proportion of the responses were job-oriented. The managers studied were similar in their responses to the organizational section of the CLI questionnaire and were significantly more job-oriented than the industrial workers Dubin had studied. These results seem to be consistent with previously discussed results. The managerial employees studied are more likely than Dubin's industrial workers to prefer the industrial organization as the most significant formal organization when judged in terms of standard and typical organizational ties and bonds. A significant proportion of the employees studied believed that the companies in which they worked provided the important or preferred opportunities for organizational experiences.

Based upon the nature of the statements, the employees studied were not saying they necessarily like their employer or the company for which they work. These types of questions were not included. The respondent was rather faced with choosing that situation or organizational context in which a particular behavior was best carried out, or in which the respondent would most like to have this behavior happen.

The attachment of the individual to the company, based upon those groups studied and those experiences sampled, does not increase as a person moves up the managerial hierarchy. There seems to be a gap between organizational attachment of Dubin's industrial workers and the present managerial employees studied.

Formal organization structures may informally demand an individual to have a high degree of organizational attachment for movement into managerial positions. A self-selection process may be working, whereas only those who have a high degree of organization attachment do move into managerial positions. This may be the reason for such a high proportion of job-oriented responses to the general experience section of the central life interest questionnaire.

Even though the professional employees have the lowest frequency of job-oriented responses of the three groups studied, the proportion of job-oriented response

is still significantly greater than the non-job-oriented responses. A low frequency of job-oriented responses would be in line with the assumption that professional employees find their rewarding organizational experiences in organizations which have been designed around their professional field of interest. The 78 per cent job-oriented responses cast some doubt upon this assumption for the professionals in the present study. For the majority of professionals the industrial organization is the most important formal organization in their lives, based upon those organizational experiences that were sampled. This is not to say that professional peer groups rewards and recognition are not important to the professional nor that industrial organizations rewards are not more important--no such questions were asked.

A second form of organizational attachment was tested by Dubin. A sample of experiences involving the technical aspects of an employee's environment was used to test the final hypothesis. This hypothesis, as adapted for the present study, became:

Hypothesis 5. A significant proportion of the employees studied will be job-oriented for their experiences with technological aspects of their environment when measured on the technological section of the CLI questionnaire, regardless of organizational position.

The technological sector⁷ of the CLI questionnaire

⁷Technical sector of experience was defined as

was composed of eight statements to permit the respondent to select the place or situation most preferred or desired for behavior directly involving relations with technical operating conditions. The responses to these eight statements were used to test Hypothesis Five. The type of statements asked in this section is best depicted by the following examples: "I enjoy reading technical articles and books to learn more about, . . ." "When I am doing some work, I usually try not to waste time," and "In getting a job done, it is most important for me to have adequate freedom to plan it."

The results for the sample studied in total and by organizational position, as well as Dubin's results, are shown in Table 21.

The preponderance of job-oriented responses did not necessitate the Chi-Square analysis for a test of the 50-50 hypothesis. When these results were compared with Dubin's, it was not necessary to perform the Chi-Square analysis; a significant difference can be seen from a cursory analysis of the data.

Table 22 presents the Chi-Square values from the test between the groups responding. There were no significant differences between the three groups' responses

that involving the relationships between an individual and his actual work operations. Robert Dubin, "Industrial Workers' World: A Study of the 'Central Life Interests' of Industrial Workers," Social Problems, III (Jan. 1956), p. 138.

TABLE 21

THE PREFERENCE FOR TECHNICAL RELATIONS OF THE FIRST-LINE MANAGERS, MIDDLE MANAGERS, AND PROFESSIONAL EMPLOYEES STUDIED, AND INDUSTRIAL WORKERS STUDIED BY DUBIN

Preference for Technical Relations	Indus- trial workers (Dubin)		Total re- sponse for employees studied		First- line managers		Middle managers		Profes- sional employees	
	#	%	#	%	#	%	#	%	#	%
Job- oriented	309	63.0	410	79.2	121	78.1	142	78.0	147	81.2
Non-job- oriented	182	37.0	108	20.8	34	21.9	40	22.0	34	18.8
Total N	491		518		155		182		181	

TABLE 22

CHI-SQUARE VALUES OBTAINED WHEN THE TECHNICAL RELATIONS SECTION OF THE CLI QUESTIONNAIRE WAS ANALYZED BY POSITIONS

Groups' responses analyzed	Chi-Square value
1. Managerial responses	0 (one degree of freedom)
2. All three groups' responses	.7047 (two degrees of freedom)
Significance	.05
Criteria for one degree of freedom	3.84
two degrees of freedom	5.99

to the technical relations section of the CLI questionnaire.

From these results, the following conclusions can be made. The data obtained in the present study do not allow Hypothesis Five to be rejected. For the technical experience section of the CLI questionnaire there was a significantly greater proportion of job-oriented responses than non-job-oriented responses. The workplace was more often preferred as the locale for the purely technical aspects of the environment for the employees of this study than for the industrial workers studied by Dubin. There was no significant difference between the three groups' studied responses to this section of the CLI questionnaire. The technical aspect of the work environment seem to be a greater source of attachment for managers and professional employees than for the industrial workers surveyed by Dubin. Possibly the nature of the training and the time spent as a manager or a professional employee would foster a greater preference than industrial employees for the technical aspects of the work environment. By choice, managerial and professional employees have selected the industrial organization as the locale for practicing their technical training.

Summary

For a majority of managerial and professional employees there is the possibility that work may represent an institutional setting that holds no central life interest for the participants. The methods and results of the investigation of such a possibility have been presented in this chapter.

The following conclusions apply only to those experiences sampled by the CLI questionnaire. For each experience group studied, the sampled experiences should not be considered the full realm of possible experiences for middle managers or professional employees.

The general conclusion reached is that the prominence of the workplace varies considerably depending on the behavior being sampled. For the employees studied, work and the workplace were least important as a setting for preferred informal relations. However, work and the workplace were viewed as a central life interest, as a setting for member-formal organizational relations to take place, and as a setting in which individuals relate themselves to the technological features of their environment. A tentative generalization can be made, based solely on these results: the employees surveyed have a well-developed sense of attachment to their work and work places without a corresponding sense of total commitment to it.

The related studies, discussed in Chapter II, suggested that a greater commitment to work and the workplace increased as the occupational ladder was ascended. In only one case, the general experience section of the CLI questionnaire, was the middle managers' response significantly different from the first-line supervisors' response.

In all cases, there was a significant difference between the industrial workers sampled by Dubin and those employees included in the present study. This suggests that commitment to work increased with movement from the industrial worker professions into the managerial and professional world. However, within managerial and professional ranks the commitment to the job is approximately the same, except for the general relations.

Previous studies cited in Chapter II also suggested that professional employees had the highest job-oriented responses. For the present study, only one situation supported this generalization and that was the technical relations section of the CLI questionnaire. This may be related to the fact that the training which a professional employee receives is centered upon a technical mastery of a defined subject. Consequently, the technical aspects of a job may be in clearer focus for the professional employee who is practicing in his area of training as opposed to a managerial employee who although dealing

with technical aspects has other factors to deal with in his total job area. However, the point is clear, of the groups studied, the professional employees are the least committed to work and the workplace as a central life interest. For the professional employees the industrial organization may be preferred as only a means to the end of practicing their professional training. When measured by the responses to the total CLI questionnaire only the professional employees indicated that work was not a valued social experience. For the first-line managers and middle managers studied the majority of respondents were neither job-oriented nor non-job-oriented in their responses to the total CLI questionnaire. The time trend in these figures was not available; consequently it is impossible to tell if this is a significant movement to non-job-oriented responses from what it was historically. It is impossible to conclude from this study, therefore, whether work and the workplace are being viewed today more as a necessary or mandatory social behavior than in some time past.

From these data certain conclusions and implications could be drawn; however, one purpose of this study was to base such conclusions and implications upon a broader foundation of knowledge about the employee. The conclusions and implication will therefore be postponed until all the results are presented about the employees

studied. Suffice to say, approximately 50 per cent of the employees completing the CLI questionnaire did not perceive their jobs and job environment as an end in itself. How these employees differ in what they want from their jobs from these employees who view the job as an end in itself is examined in the following chapter.

CHAPTER V

THE RELATIONSHIP BETWEEN THE CENTRAL LIFE INTERESTS AND THE MOTIVATION HYGIENE THEORY

This chapter is devoted to an examination of the relationship between the employees' responses to the Central Life Interest questionnaire and the importance the employees attach to the various job factors as contributors to the satisfying situation and the dissatisfying situation. An analysis of this relationship was made to determine whether the Central Life Interest had an effect on Herzberg's dual continuum, motivation-hygiene theory. In analyzing this relationship the responses to the total questionnaire were utilized. (See Appendix I for total questionnaire.)

With the increasing possibility for social experience off the job, Dubin has theorized that some employees have shifted from centering their lives on the job to centering their lives off the job. From the use of his Central Life Interest questionnaire, Dubin contends that three types of employees are found within industrial organizations: the job-oriented, the non-job-oriented, and the indifferent. (For further discussion of the

theory, questionnaire, and subsequent research, see Chapter II. The definitions of a "job-oriented" person and a "non-job-oriented" person on pp. 47-49, are especially significant.)

The definitions of a job-oriented person and non-job-oriented person presented by Dubin would seem to indicate that the job-oriented employee would place a higher degree of importance on certain job factors as contributors to the satisfying and the dissatisfying situation than the non-job-oriented employee. Herzberg's motivation-hygiene, dual continuum theory was in all probability based on a sample which contained both job-oriented employees and non-job-oriented employees.

The motivation-hygiene dual continuum theory contends that two independent groups of job factors exist in the job situation. One group of factors, titled Motivators, by their presence lead to satisfying situations, but their absence does not lead to dissatisfying situations. The second group of factors, titled Hygiene factors, lead to dissatisfying situations by their absence or negative presence, but do not lead to satisfying situations by their presence. These two groups of job factors operate independently on two separate continua. Conceptually, the motivators are intrinsic to the job and the hygiene factors are extrinsic to the job. This theory challenges the single continuum theories of motivation

which state that the numerous job factors are not two independent groups, but which taken together create job satisfaction by their presence and create job dissatisfaction by their absence. In the single continuum theories no distinction is made between motivators and hygiene factors; all job factors, whether extrinsic or intrinsic to the job, cause a shift along a single continuum where the two extremes are satisfaction and dissatisfaction. (For a more detailed explanation of each theory, subsequent research, and criticisms, see Chapter II.)

The results presented in Chapter III indicated that the motivation-hygiene, dual continuum theory was not fully supported for those employees included in the present study.

As would seem to be indicated by the definitions presented by Dubin, the proportions of job-oriented and non-job-oriented employees included in a study of the motivation hygiene theory could partially explain the varying results. If this is the case, conflicting conclusions concerning the validity of the motivation-hygiene, dual continuum theory could be based upon the Central Life Interests of the employees included in the sample. The proportion of job-oriented and non-job-oriented individuals in Herzberg's original group is impossible to judge. However, the relationship between the Central Life Interest of employees and the motivation-

hygiene theory can be tested using the present group of respondents.

The following hypotheses were formulated to determine whether the job-oriented employees differ from the non-job-oriented employees in terms of job factor importance for the two situations studied.

1. The motivators, as defined by Herzberg, are primarily related to the satisfying situation for the job-oriented employees surveyed, regardless of organizational position.
2. The hygiene factors, as defined by Herzberg, are primarily related to the satisfying situation for the non-job-oriented employees surveyed, regardless of organizational position.
3. The motivators, as defined by Herzberg, are primarily related to the dissatisfying situation for the job-oriented employees surveyed, regardless of organizational position.
4. The hygiene factors, as defined by Herzberg, are primarily related to the dissatisfying situation for the non-job-oriented employees surveyed, regardless of organizational position.
5. For the job-oriented employees, most of the job factors are significantly related to both the satisfying situation and the dissatisfying situation.
6. For the non-job-oriented employees, most of the job factors are significantly related to both the satisfying situation and the dissatisfying situation.

Hypotheses One and Two were constructed to determine whether the job-oriented and non-job-oriented employees differed in their response to part two of the questionnaire, the satisfying situation. Hypotheses Three and Four were constructed to determine whether the

job-oriented and non-job-oriented employees differed in their response to part three of the questionnaire, the dissatisfying situation. Hypotheses Five and Six were formulated to determine whether the dual continuum, theorized by Herzberg, was operative for either the job-oriented or non-job-oriented employees.

A comparison of the results, as related to Hypotheses One through Six, provided a base to determine whether the meaning work had for the individual employee alters what the employee wants from his job.

The method of data analysis employed to test these six hypotheses was similar to the approach presented in Chapter III. For clarity, the specific methods used were incorporated in the following section which tests these hypotheses.

Testing the Hypotheses

To determine the effect the Central Life Interests of the employees surveyed had on Herzberg's motivation-hygiene theory, the responses to the satisfying situation and to the dissatisfying situation are presented separately.

From the definitions presented by Dubin, the inference is that the job-oriented employees seek self-actualization on the job, while the non-job-oriented employees seek self-actualization off the job. Based upon this inference, the expectation is that in the

satisfying situation the job-oriented employee would place the most importance on those job factors which are intrinsic to the job; the non-job-oriented employee would be expected to place the most importance on those job factors which are extrinsic to the job.

Hypotheses One and Two were formulated to test this difference in the satisfying situation:

1. The motivators are primarily related to the satisfying situation for the job-oriented employees surveyed, regardless of organizational position.
2. The hygiene factors are primarily related to the satisfying situation for the non-job-oriented employees surveyed, regardless of organizational position.

The scoring of the Central Life Interest questionnaire resulted in the following proportions of job-oriented and non-job-oriented employees at each of the three organizational positions:

	First-line Managers		Middle Managers		Professional Employees	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Job-oriented	69	45	96	53	76	42
Non-job-oriented	<u>86</u>	55	<u>86</u>	47	<u>105</u>	58
Total Number	155		182		181	

A list of those job factors which the job-oriented employees considered most important in contributing to the satisfying situation was necessary to test Hypothesis One. Such a list would be meaningful only if the

importance placed on the 18 job factors by the job-oriented employees was significantly different. If there were no significant differences among the factors, then such a list would be meaningless.

A separate analysis of variance was performed for each of the three groups of job-oriented employees' responses to the satisfying situation. For each group, an F ratio was computed. In those cases where the F ratio was significant, the job factors could be meaningfully ordered based on their mean scores. A significant F indicated that a significant difference between the mean score for the 18 job factors existed. These lists were then used to test Hypothesis One.

The same procedure was used for the three non-job-oriented groups' responses to the satisfying situation. Hypothesis Two was then tested based upon this information.

In all cases the F ratio clearly indicated that the job-oriented employees attached significantly different importance to the job factors in contributing to the satisfying situation. A significant difference in importance for the non-job-oriented employees between the same job factors as contributors to the satisfying situation was also clearly indicated. (See Tables 46 through 51 in Appendix II for the summary results of these separate analyses of variance.)

The eighteen job factors were not equally important in creating the satisfying situation. Thus, a list of the most important contributors to the satisfying situation, using the mean scores of these job factors, would be meaningful. Tables 23, 24, and 25 present a list of all the job factors contributing to the satisfying situation, in order of importance for both the job-oriented and the non-job-oriented employees at each of the three organizational positions surveyed.

Herzberg found that the five most important job factors contributing to the satisfying situation are all motivators. If one considers only the five job factors which were most important to the job-oriented employees from the three organizational positions surveyed in this study, the following conclusions can be made:

- a. The top three job factors are the same motivators for the three organizational positions surveyed.
- b. The middle managers and professional employees included only motivators as the five most important job factors contributing to the satisfying situation.
- c. The first-line managers were the only group which rated a hygiene factor among the five most important contributors to the satisfying situation. The hygiene factor Relations with Co-workers was rated fourth in importance by these employees.

On the basis of these data, Hypothesis One cannot be rejected for the job-oriented employees studied. The five most important job factors contributing to the satisfying situation were all motivators for the job-oriented

middle managers and professional employees. For the job-oriented, first-line managers the top three job factors, and four out of the top five were motivators. The results, however, are not in strict agreement with Herzberg's list of primary motivators. Not only does a hygiene factor--Relations with Co-workers--appear among the five most important factors for job-oriented, first-line managers, but also some job factors found by Herzberg to be of major importance are found well down the list: presented in Tables 23, 24, and 25. For example, Responsibility, a motivator of major importance in Herzberg's original study, is never ranked higher than seventh in importance as a contributor to the satisfying situation for the job-oriented employees surveyed. However, virtually all of the job factors of primary importance to the job-oriented employees do meet the criteria set by Herzberg for motivators.

If one considers only the five job factors which were most important to the non-job-oriented employees from the three organizational positions surveyed in this study, the following conclusions can be made:

- a. The top three job factors are the same motivators for the non-job-oriented employees in the three organizational positions surveyed, and are identical in order of importance for the job-oriented employees from the same organizational positions.
- b. For middle managers and professional employees the five most important job factors contributing to the satisfying situation were motivators.

TABLE 23

JOB FACTORS CONTRIBUTING TO THE SATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED FIRST-LINE MANAGERS STUDIED

Job-Oriented First-Line Managers		Non-Job Oriented First-Line Managers	
Achievement	(3.710)	Work Itself	(3.639)
Work Itself	(3.666)	Achievement	(3.627)
Use of Best Abilities	(3.623)	Use of Best Abilities	(3.395)
<i>Relations with Co-workers</i>	(3.449)	<i>Relations with Co-workers</i>	(3.348)
Growth	(3.376)	<i>Relations with Supervisor</i>	(3.290)
<i>Security</i>	(3.318)	Growth	(3.267)
Challenging Assignment	(3.188)	<i>Security</i>	(3.139)
<i>Relations with Supervisor</i>	(3.188)	Recognition	(3.069)
Responsibility	(3.101)	Challenging Assignment	(3.046)
<i>Technical Supervision</i>	(3.014)	Work Group	(2.883)
Recognition	(3.000)	Responsibility	(2.860)
<i>Management Policies</i>	(2.884)	<i>Technical Supervision</i>	(2.686)
Work Group	(2.855)	<i>Working Conditions</i>	(2.627)
<i>Working Conditions</i>	(2.724)	Promotion	(2.604)
Promotion	(2.652)	<i>Management Policies</i>	(2.569)
<i>Merit Increase</i>	(2.608)	<i>Merit Increase</i>	(2.523)
<i>Home Life</i>	(2.594)	<i>Home Life</i>	(2.441)
<i>Employee Benefits</i>	(2.478)	<i>Employee Benefits</i>	(2.302)

TABLE 24

JOB FACTORS CONTRIBUTING TO THE SATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED FIRST-LINE MANAGERS STUDIED

Job-Oriented Middle Managers		Non-Job-Oriented Middle Managers	
Achievement	(3.791)	Achievement	(3.395)
Work Itself	(3.645)	Work Itself	(3.569)
Use of Best Abilities	(3.552)	Use of Best Abilities	(3.395)
Challenging Assignment	(3.375)	Recognition	(3.255)
Recognition	(3.260)	Challenging Assignments	(3.209)
<i>Relations with Co-workers</i>	<i>(3.052)</i>	<i>Relations with Supervisor</i>	<i>(2.906)</i>
<i>Responsibility</i>	<i>(3.031)</i>	<i>Growth</i>	<i>(2.883)</i>
<i>Growth</i>	<i>(3.031)</i>	<i>Relations with Co-workers</i>	<i>(2.872)</i>
<i>Relations with Supervisor</i>	<i>(3.000)</i>	<i>Responsibility</i>	<i>(2.803)</i>
<i>Security</i>	<i>(2.927)</i>	<i>Security</i>	<i>(2.651)</i>
<i>Work Group</i>	<i>(2.625)</i>	<i>Technical Supervision</i>	<i>(2.546)</i>
<i>Promotion</i>	<i>(2.572)</i>	<i>Work Group</i>	<i>(2.418)</i>
<i>Technical Supervision</i>	<i>(2.479)</i>	<i>Working Conditions</i>	<i>(2.337)</i>
<i>Merit Increase</i>	<i>(2.281)</i>	<i>Promotion</i>	<i>(2.302)</i>
<i>Working Conditions</i>	<i>(2.187)</i>	<i>Merit Increase</i>	<i>(2.279)</i>
<i>Management Policies</i>	<i>(2.177)</i>	<i>Management Policies</i>	<i>(2.197)</i>
<i>Home Life</i>	<i>(1.885)</i>	<i>Home Life</i>	<i>(1.895)</i>
<i>Employee Benefits</i>	<i>(1.593)</i>	<i>Employee Benefits</i>	<i>(1.593)</i>

TABLE 25

JOB FACTORS CONTRIBUTING TO THE SATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED PROFESSIONAL EMPLOYEES STUDIED

Job-Oriented Professional Employees		Non-Job-Oriented Professional Employees	
Achievement	(3.763)	Achievement	(3.780)
Work Itself	(3.736)	Work Itself	(3.628)
Use of Best Abilities	(3.565)	Use of Best Abilities	(3.457)
Recognition	(3.434)	Recognition	(3.295)
Challenging Assignment	(3.342)	Challenging Assignment	(3.247)
Growth	(3.171)	Growth	(3.142)
<i>Relations with Co-workers</i>	(3.078)	<i>Relations with Supervisor</i>	(3.000)
<i>Relations with Supervisor</i>	(2.947)	<i>Relations with Co-workers</i>	(2.942)
Responsibility	(2.802)	Security	(2.771)
Security	(2.763)	Technical Supervision	(2.752)
Merit Increase	(2.592)	Responsibility	(2.714)
Technical Supervision	(2.447)	Work Group	(2.495)
Work Group	(2.407)	Working Conditions	(2.285)
Promotion	(2.328)	Merit Increase	(2.209)
Working Conditions	(2.210)	Promotion	(2.190)
Management Policies	(2.013)	Management Policies	(1.990)
Home Life	(1.763)	Home Life	(1.742)
Employee Benefits	(1.407)	Employee Benefits	(1.428)

- c. The first-line managers were the only group which rated hygiene factors among the five most important contributors to the satisfying situation. The hygiene factors, Relations with Co-workers and Relations with Supervisors, were rated fourth and fifth in importance by these employees.

Therefore, Hypothesis Two cannot be accepted for the non-job-oriented employees studied. Motivators, not hygiene factors, were of prime importance to the non-job-oriented employees in contributing to their satisfying situation.

Herzberg has found that the five job factors which are least important contributors to the satisfying situation are hygiene factors. The job-oriented middle managers surveyed agreed with the Herzberg findings: hygiene factors are the five least important job factors contributing to the satisfying situation. However, the non-job-oriented middle managers and all first-line managers and all professional employees included Promotion, a motivator, as one of the five least important job factors.

These results lend partial proof to Herzberg's theory that the motivators were of prime importance in contributing to the satisfying situation, and questions Dubin's distinction of what the non-job-oriented employees want from their jobs. Definitive conclusions about this relationship will be reserved until all the results have been presented.

Dubin's distinction between the job-oriented and non-job-oriented employees can also be used to imply the

types of job factors that would, by their absence, cause a dissatisfying situation to occur for those employees. An employee who centers his life on the job, i.e., a job-oriented person, would be expected to feel high dissatisfaction in a situation where the motivators were absent or negatively present. Conversely, an employee who centers his life off the job, i.e., a non-job-oriented person, would be expected to feel high dissatisfaction in a situation where the hygiene factors were absent or negatively present. Herzberg's theory, however, contradicts with this implication. Herzberg states that the absence or negative presence of hygiene factors would be of greatest importance in contributing to the dissatisfying situation. The responses of all employees to Part III of the questionnaire were analyzed to test this relationship in the dissatisfying situation.¹ Hypotheses Three and Four were formulated as follows:

3. The motivators, as defined by Herzberg, are primarily related to the dissatisfying situation for the job-oriented employees surveyed, regardless of organizational position.
4. The hygiene factors, as defined by Herzberg, are primarily related to the dissatisfying situation for the non-job-oriented employees surveyed, regardless of organizational position.

For both the job-oriented and non-job-oriented groups of employees, the 18 job factors were not equally

¹The data were analyzed in the same fashion as those relating to Hypotheses One and Two. See Tables 52-57 in Appendix II for the summary results of the separate analyses of variance.

important in creating the dissatisfying situation. Lists of all the job factors contributing to the dissatisfying situation, shown in order of importance for the job-oriented and non-job-oriented employees at the three organizational positions surveyed, are presented in Tables 26, 27, and 28.

If only the five job factors of most importance are considered, the following conclusions can be made. For all three organizational positions surveyed, regardless of the central life interest of these employees, the five most important job factors contributing to dissatisfaction are motivators, not hygiene factors, and the five least important job factors contributing to the dissatisfying situation were all hygiene factors.

Therefore, Hypothesis Three cannot be rejected because the job factors of prime importance as contributors to the dissatisfying situation for the job-oriented employees surveyed were motivators. However, Hypothesis Four cannot be accepted because the job factors of prime importance in contributing to the dissatisfying situation were motivators, not hygiene factors.

The results of the present study, even when the central life interest of the employees studied is considered, do not agree with Herzberg's motivation hygiene theory. The motivators were of prime importance in contributing to both the satisfying and the dissatisfying

TABLE 26

**JOB FACTORS CONTRIBUTING TO THE DISSATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED FIRST-LINE MANAGERS STUDIED**

Job-Oriented First-Line Managers		Non-Job-Oriented First-Line Managers	
Achievement	(3.144)	Achievement	(2.720)
Recognition	(2.681)	Use of Best Abilities	(2.534)
Promotion	(2.594)	Challenging Assignment	(2.418)
Challenging Assignment	(2.579)	Promotion	(2.383)
Responsibility	(2.521)	Recognition	(2.383)
Use of Best Abilities	(2.492)	Security	(2.244)
Relations with Supervisor	(2.478)	Relations with Supervisor	(2.197)
Growth	(2.449)	Work Itself	(2.186)
Security	(2.391)	Work Group	(2.174)
Technical Supervision	(2.304)	Growth	(2.139)
Work Group	(2.246)	Management Policies	(2.093)
Work Itself	(2.202)	Technical Supervision	(2.069)
Management Policies	(2.188)	Responsibilities	(2.058)
Working Conditions	(2.086)	Working Conditions	(2.034)
Merit Increase	(2.072)	Relations with Co-workers	(1.860)
Home Life	(2.057)	Home Life	(1.767)
Relations with Co-workers	(1.739)	Merit Increase	(1.686)
Employee Benefits	(1.521)	Employee Benefits	(1.337)

TABLE 27

JOB FACTORS CONTRIBUTING TO THE DISSATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED MIDDLE MANAGERS STUDIED

Job-Oriented Middle Managers		Non-Job-Oriented Middle Managers	
Achievement	(2.781)	Achievement	(2.744)
Use of Best Abilities	(2.760)	Use of Best Abilities	(2.720)
Responsibility	(2.614)	Challenging Assignment	(2.476)
Promotion	(2.520)	Recognition	(2.465)
Challenging Assignment	(2.489)	Responsibility	(2.418)
Recognition	(2.489)	Growth	(2.267)
Growth	(2.468)	Management Policies	(2.162)
Relations with Supervisor	(2.354)	Promotion	(2.162)
Management Policies	(2.125)	Work Itself	(2.081)
Security	(1.968)	Relations with Supervisor	(2.658)
Work Itself	(1.947)	Technical Supervision	(1.837)
Technical Supervision	(1.916)	Security	(1.802)
Work Group	(1.854)	Work Group	(1.697)
Merit Increase	(1.822)	Working Conditions	(1.697)
Home Life	(1.791)	Merit Increase	(1.662)
Relations with Co-workers	(1.479)	Home Life	(1.627)
Working Conditions	(1.656)	Relations with Co-workers	(1.313)
Employee Benefits	(1.229)	Employee Benefits	(1.267)

TABLE 28

JOB FACTORS CONTRIBUTING TO THE DISSATISFYING SITUATION,
IN ORDER OF IMPORTANCE, FOR THE JOB-ORIENTED AND
NON-JOB-ORIENTED PROFESSIONAL EMPLOYEES STUDIED

Job-Oriented Professional Employees		Non-Job-Oriented Professional Employees	
Achievement	(3.197)	Achievement	(3.038)
Use of Best Abilities	(2.986)	Use of Best Abilities	(2.809)
Recognition	(2.789)	Challenging Assignment	(2.676)
Promotion	(2.776)	Growth	(2.666)
Challenging Assignment	(2.763)	Responsibility	(2.657)
Responsibility	(2.697)	Recognition	(2.495)
Growth	(2.644)	Management Policies	(2.485)
Management Policies	(2.276)	Promotion	(2.466)
Security	(2.197)	Security	(2.400)
Relation with Supervisor	(2.157)	Work Itself	(2.219)
Technical Supervision	(2.118)	Relations with Supervisor	(2.219)
Merit Increase	(2.118)	Technical Supervision	(2.123)
Work Itself	(2.105)	Work Group	(2.066)
Work Group	(1.973)	Home Life	(1.952)
Working Conditions	(1.789)	Merit Increase	(1.952)
Relations with Co-workers	(1.723)	Working Conditions	(1.828)
Home Life	(1.671)	Relations with Co-workers	(1.628)
Employee Benefits	(1.263)	Employee Benefits	(1.342)

situation. The hygiene factors, contrary to Herzberg's theory, were relatively unimportant in contributing to either situation, regardless of the central life interest of the employees studied.

The results of the present study also appear to disagree with Dubin's distinctions between the job-oriented and non-job-oriented employees. Contrary to Dubin, both the job-oriented employees and non-job-oriented employees included in the present study appear to receive their highest satisfaction from job situations which provide for self-actualization. The job-oriented and non-job-oriented employees included in the present study also receive their greatest dissatisfaction from situations on the job which do not provide for self-actualization. The job factor which Dubin theorized to be of prime importance for the non-job-oriented employees, monetary returns, was in both situations relatively unimportant as a contributor to either.

An employee who is not emotionally involved in the job and views work as an instrument with dispassionate attachment, would not be expected to place a great deal of importance on such job factors as Achievement, Use of Best Abilities, and Challenging Assignments. This is the inference drawn from Dubin's definition of the non-job-oriented employee. As the present study indicates, these job factors are of prime importance to the non-job-oriented

employee. He does not "adjust" to their absence, but rather exhibits a high degree of dissatisfaction when the job does not offer these job factors. Conversely, situations which offer the possibility for Achievement, and Use of Best Abilities, are not viewed with indifference by the non-job-oriented employee, but rather produce a high degree of satisfaction.

For Dubin, the non-job-oriented worker seeks self-actualization off the job; his adjustment to work causes him not to expect this self-actualization from the workplace. Therefore, he says that management should not worry about building into the job and work environment the opportunity for self-actualization for the non-job-oriented employee. One of the motivational attempts criticized by Dubin is the attempt to attain a sense of participation in work from people who center their lives off the job. The contention of this author is that through participation the non-job-oriented employee can affect the job or job situation to gain the achievement, challenging assignments and recognition which appear to be of prime importance in creating either satisfaction or dissatisfaction for the non-job-oriented employees surveyed. The present research agrees with Herzberg who states that "man tends to actualize himself in every area of his

life, and his job is one of the most important areas."² Even for those employees who relegate the job to a position secondary in importance, the need for self-actualization on the job still appears to be a dominant one. This is indicated by the importance attached to those job factors considered to be indicative of self-actualization when they are either present or absent in the work situation for the job-oriented and non-job-oriented employees surveyed.

Dubin states that "none of these efforts toward greater employee participation have been crowned with success," because a large proportion of the employees center their lives off the job. The present research indicates that both the job-oriented and non-job-oriented employees want basically the same thing from their jobs. Possibly other factors affect the success of the modern approaches to motivation rather than the CLI of the employees. McGregor offers an explanation when he states: "the limits on human collaboration in the organizational setting are not limits of human nature, but of management's ingenuity in discovering how to realize the potential represented by its human resources."³ As the present research indicates, a majority of the same job

²Frederick Herzberg, et al., The Motivation to Work (New York: John Wiley and Son, 1959), p. 114.

³McGregor, The Human Side of Enterprise, p. 48.

factors were important in contributing to both the satisfying and the dissatisfying situations, regardless of organizational position or central life interest of the respondents. For the managers of employees included in the present study the implication in terms of job design, organizational structure, and leadership styles appears to be to emphasize the "motivators" as defined by Herzberg. Although Herzberg concluded that the absence of motivators lead to no satisfaction, for the employees included in the present study, the absence of motivators results in high dissatisfaction. These results would indicate the validity of current management theorists like Likert, McGregor, et al. in such areas of job design and leadership styles.

The job factor rankings presented in Tables 23 through 28 seem to indicate that for both the job-oriented and non-job-oriented employees the job factors surveyed are quite similar in importance for the two situations. A conclusion might be that knowledge of a job factor's importance in contributing to the satisfying situation can thus be used to predict the importance the absence of the same job factor will have for the dissatisfying situation. Or, to express the matter differently, that the presence or absence of these job factors seems to cause a movement along a single continuum where the extremes are satisfaction and dissatisfaction.

Hypotheses Five and Six were formulated to examine this relationship.

5. For the job-oriented employees, most of the job factors are significantly related to both the satisfying and dissatisfying situation.
6. For the non-job-oriented employees, most of the job factors are significantly related to both the satisfying and dissatisfying situation.

Two comparisons were made between the importance which each job factor had for the satisfying and dissatisfying situation. These comparisons were similar to those discussed in Chapter III, except that an analysis was made of the job-oriented and non-job-oriented employee groups within each of the three organizational positions.

For illustration, these two comparisons are presented in the following abbreviated format.

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence (r)	
	1 Mean	2 Std. Dev.	3 Mean	4 Std. Dev.	5	6
1.						
.						
.						
18.						

The importance of the 18-job factors in contributing to satisfying situations is represented by a mean score in column 1; the importance of the same 18-job factors in contributing to dissatisfying situations is represented by a mean score in column 3. If a job factor

was equally important for both satisfaction and dissatisfaction, the mean scores would not be significantly different. In Column 5 the amount of the difference is shown. This difference was subjected to a t test to determine whether the job factor was significantly more important in contributing to either the satisfying or dissatisfying situation.

A second comparison was made to determine the degree of relationship between a job factor's importance for the satisfying situation and dissatisfying situation. A Pearson product moment correlation coefficient (r) was computed for each job factor and is presented in Column 6.

The information presented in Columns 5 and 6 for the job-oriented employees' responses allowed conclusions to be reached concerning Hypothesis Five. These data are summarized in Tables 29 through 31 for job-oriented employees in each of the three categories. By separately analyzing the non-job-oriented employees' responses in the same fashion, conclusions were reached concerning Hypothesis Six. Tables 32 through 34 summarize these data.

The asterisks in Column 5 indicate which job factors were significantly more important at the .01 level in contributing to either satisfaction or dissatisfaction. The asterisks in Column 6 indicate which job factors had a significant degree of relationship at the .01 level

TABLE 29

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR JOB-ORIENTED, FIRST-LINE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Difference	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.652	1.213	2.594	1.146	.058	.221
Challenging Assignments	3.188	.967	2.579	1.134	.609*	.138
Recognition	3.000	.884	2.681	1.014	.319	-.096
Relations with Supervisor	3.188	.872	2.478	1.325	.710*	.059
Relations with Coworkers	3.449	.843	1.739	1.098	1.710*	.079
Technical Supervision	3.014	1.096	2.304	1.231	.710*	-.217
Merit Increases	2.608	1.144	2.072	1.171	.536*	.507*
Achievement	3.710	.513	3.144	1.145	.566*	.046
Working Conditions	2.724	.976	2.086	1.151	.638*	.034
Responsibility	3.101	.934	2.521	1.223	.580*	.181
Security	3.318	.859	2.391	1.276	.927*	.216
Growth	3.376	.949	2.449	1.210	.927*	.218
Employer Benefits	2.478	1.199	1.521	.926	.957*	.310*
Work Itself	3.666	.629	2.202	1.257	1.464*	-.061
Home Life	2.594	1.300	2.057	1.165	.537*	.331*
Work Group	2.855	1.080	2.246	1.301	.609*	.056
Management Policies	2.884	1.161	2.188	1.310	.696*	.242
Use of Best Abilities	3.623	.704	2.492	1.235	1.131*	.013
Mean	3.079		2.319		.760	
Standard Deviation	.377		.354			

N = 69

*p < .01

TABLE 30

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR JOB-ORIENTED, MIDDLE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.572	1.087	2.520	1.207	.052	.217
Challenging Assignments	3.375	.869	2.489	1.190	.886*	.174
Recognition	3.260	.904	2.489	1.163	.771*	.185
Relations with Supervisor	3.000	.866	2.354	1.274	.646*	.103
Relations with Coworkers	3.052	.833	1.479	.946	1.573*	.179
Technical Supervision	2.479	1.050	1.916	1.204	.563*	.220
Merit Increases	2.281	1.105	1.822	1.060	.459*	.450*
Achievement	3.791	.406	2.781	1.217	1.010*	.097
Working Conditions	2.187	.960	1.656	.998	.531*	.067
Responsibility	3.031	1.185	2.614	1.166	.417*	.219
Security	2.927	.926	1.968	1.202	.959*	.278*
Growth	3.031	.983	2.468	1.215	.563*	.161
Employer Benefits	1.593	.860	1.229	.567	.364*	.318*
Work Itself	3.645	.594	1.947	1.227	1.698*	-.039
Home Life	1.885	1.144	1.791	1.107	.094	.293*
Work Group	2.625	1.053	1.854	1.198	.771*	.030
Management Policies	2.177	1.154	2.125	1.235	.052	.130
Use of Best Abilities	3.552	.675	2.760	1.188	.792*	.100
Mean	2.803		2.126		.677	
Standard Deviation	.602		.439			

N = 96

*p < .01

TABLE 31

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR JOB-ORIENTED, PROFESSIONAL EMPLOYEES

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.328	1.018	2.776	1.107	-.448*	.310*
Challenging Assignments	3.342	.939	2.763	1.157	.579*	.159
Recognition	3.434	.749	2.789	1.067	.645*	.097
Relations with Supervisor	2.947	.901	2.157	1.236	.790*	-.004
Relations with Coworkers	3.078	.773	1.723	1.142	1.355*	.069
Technical Supervision	2.447	1.080	2.118	1.245	.329	.068
Merit Increases	2.592	1.053	2.118	1.111	.474*	.434*
Achievement	3.763	.425	3.197	1.112	.566*	.098
Working Conditions	2.210	.950	1.789	1.067	.421*	.225
Responsibility	2.802	1.158	2.697	1.246	.105	.405*
Security	2.763	.886	2.197	1.181	.566*	.220
Growth	3.171	.833	2.644	1.177	.527*	.370*
Employer Benefits	1.407	.763	1.263	.635	.144	.645*
Work Itself	3.736	.546	2.105	1.252	1.631*	-.017
Home Life	1.763	1.086	1.671	1.104	.092	.472*
Work Group	2.407	1.114	1.973	1.191	.434*	.206
Management Policies	2.013	1.186	2.276	1.209	-.263	.134
Use of Best Abilities	3.565	.592	3.986	1.197	.579*	.177
Mean	2.765		2.291		.474	
Standard Deviation	.659		.502			

N = 76

*p < .01

TABLE 32

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR NON-JOB-ORIENTED, FIRST-LINE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.604	1.183	2.383	1.163	.221	.253
Challenging Assignments	3.046	.987	2.418	1.104	.628*	.312*
Recognition	3.069	.859	2.383	1.153	.686*	.231
Relations with Supervisor	3.290	.833	2.197	1.265	1.093*	-.142
Relations with Coworkers	3.348	.817	1.860	1.192	1.488*	-.033
Technical Supervision	2.686	1.112	2.069	1.097	.617*	-.162
Merit Increases	2.523	1.075	1.686	1.059	.837*	.409*
Achievement	3.627	.665	2.720	1.157	.907*	.242
Working Conditions	2.627	1.068	2.034	1.175	.593*	.177
Responsibility	2.860	1.013	2.058	1.144	.802*	.197
Security	3.139	1.001	2.244	1.256	.895*	.330*
Growth	3.267	.907	2.139	1.192	1.128*	.126
Employer Benefits	2.302	1.230	1.337	.771	.965*	.284*
Work Itself	3.639	.697	2.186	1.215	1.453*	.079
Home Life	2.441	1.263	1.767	1.106	.674*	.514
Work Group	2.883	1.155	2.174	1.259	.709*	.013
Management Policies	2.569	1.176	2.093	1.225	.476*	.043
Use of Best Abilities	3.395	.781	2.534	1.207	.861*	.034
Mean	2.962		2.127		.835	
Standard Deviation	.399		.315			

N = 86

*p < .01

TABLE 33

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR NON-JOB-ORIENTED, MIDDLE MANAGERS

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.302	.977	2.162	1.098	.140	.246
Challenging Assignments	3.209	.965	2.476	1.226	.733*	.151
Recognition	3.255	.865	2.465	1.030	.790*	-.081
Relations with Supervisor	2.906	.972	2.058	1.251	.848*	.052
Relations with Coworkers	2.872	.997	1.313	.735	1.558*	.054
Technical Supervision	2.546	.996	1.837	1.087	.709*	.125
Merit Increases	2.279	1.106	1.662	1.029	.617*	.164
Achievement	3.744	.510	2.744	1.202	1.000*	.063
Working Conditions	2.337	1.052	1.697	1.100	.640*	.248
Responsibility	2.802	1.139	2.418	1.224	.384	.251
Security	2.541	.924	1.802	1.159	.849*	.195
Growth	2.883	1.004	2.267	1.214	.616*	.320*
Employer Benefits	1.593	.907	1.267	.722	.326*	.396*
Work Itself	3.569	.707	2.081	1.240	1.488*	.039
Home Life	1.895	1.161	1.627	1.121	.268	.371*
Work Group	2.418	1.115	1.697	1.110	.721*	.102
Management Policies	2.197	1.097	2.162	1.189	.035	.215
Use of Best Abilities	3.395	.766	2.720	1.235	.675*	.165
Mean	2.714		2.025		.689	
Standard Deviation	.563		.429			

N = 86

*p < .01

TABLE 34

MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN SOURCES OF
JOB SATISFACTION AND SOURCES OF JOB DISSATISFACTION
FOR NON-JOB-ORIENTED, PROFESSIONAL EMPLOYEES

Job Factors	Satisfying Situations		Dissatisfying Situations		Differ- ence	r
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)		
Promotion	2.190	.967	2.466	1.138	-.276	.247
Challenging Assignments	3.247	.902	2.676	1.099	.571*	.176
Recognition	3.295	.742	2.495	1.079	.800*	.102
Relations with Supervisor	3.000	.872	2.219	1.287	.781*	-.067
Relations with Coworkers	2.942	.860	1.628	1.007	1.314*	.041
Technical Supervision	2.752	1.049	2.123	1.200	.629*	.092
Merit Increases	2.209	1.101	1.942	1.040	.267	.334*
Achievement	3.780	.497	3.038	1.068	.742*	.159
Working Conditions	2.285	.973	1.828	1.073	.457*	.256*
Responsibility	2.714	1.110	2.657	1.145	.057	.275*
Security	2.771	.875	2.400	1.231	.371	.022
Growth	3.142	.855	2.666	1.208	.476*	.147
Employer Benefits	1.428	.803	1.342	.778	.086	.678*
Work Itself	3.628	.539	2.219	1.154	1.409*	.038
Home Life	1.742	1.078	1.952	1.166	-.210	.459*
Work Group	2.495	1.024	2.066	1.140	.429*	.053
Management Policies	1.990	1.046	2.485	1.211	-.495*	.213
Use of Best Abilities	3.457	.704	2.809	1.147	.648*	.249
Mean	2.726		2.278		.448	
Standard Deviation	.638		.424			

N = 105

*p < .01

for both the satisfying and dissatisfying situation.

Table 29 shows that the job-oriented first-line managers rated sixteen of the eighteen job factors significantly different in their importance for the satisfying and dissatisfying situation, and all of these factors were more important as a source of satisfaction than dissatisfaction--as indicated by the positive sign of the differences in Column 5.

For the job-oriented middle managers surveyed, similar results are indicated in Table 30. Fifteen job factors were significantly different in importance for the satisfying and the dissatisfying situation and all of them were more important as a source of satisfaction than dissatisfaction.

Table 31 shows that the job-oriented professional employees rated thirteen of the eighteen job factors significantly different in their importance for the satisfying and dissatisfying situation. Only one of these thirteen job factors--Promotion--was more important as a contributor to the dissatisfying situation than as a contributor to the satisfying situation.

To summarize, for the job-oriented employees surveyed, the majority of job factors had a stronger effect in creating the satisfying situation when present than their absence did in creating the dissatisfying situation. For only one organizational group, professional

employees, was any job factor more important by its absence as a contributor to the dissatisfying situation than to the satisfying situation. Or, to express it differently, for the job-oriented employees an addition to most of these job factors would have a stronger effect in contributing to the satisfying situation than deletion of these factors would have in contributing to the dissatisfying situation.

The non-job-oriented first-line managers' responses summarized in Table 32 indicate that 17 of the 18 job factors were significantly different in their importance as contributors to the satisfying and dissatisfying situation and all of these factors were more important as a source of satisfaction than dissatisfaction as indicated by the positive sign of the difference in Column 5.

Similar results are indicated for the non-job-oriented middle managers' responses shown in Table 33. Fourteen of the 18 job factors surveyed were significantly different in their importance as contributors to the satisfying and the dissatisfying situation, and all were more important as a source of satisfaction than dissatisfaction.

As shown in Table 34, the non-job-oriented professional employees rated 12 of the 18 job factors as significantly different in their importance in contributing to the satisfying and dissatisfying situation. One of

these 12 job factors, Management Policies, was significantly more important as a contributor to the dissatisfying situation than as a contributor to the satisfying situation.

Thus the same summarization can be made for non-job-oriented employees as was made earlier for job-oriented employees. Most of the job factors had a stronger effect in creating the satisfying situation when present than their absence did in creating the dissatisfying situation. For only one organizational group, professional employees, was any job factor more important by its absence as a contributor to the dissatisfying situation than to the satisfying situation. Or, to express it differently, for the non-job-oriented employees an addition to most of these job factors would have a stronger effect in contributing to the satisfying situation than deletion of these factors would have in contributing to the dissatisfying situation.

The degree of relationship between the importance of the job factors to the satisfying situation and to the dissatisfying situation for the job-oriented and non-job-oriented employees was further analyzed by computation of a Pearson product moment correlation coefficient for each job factor. The coefficients are presented in column 6 of Tables 29 through 34.

For most of the job factors, the coefficients were not significant. This was true, regardless of the

employees' CLI or organization position. The importance of these job factors in contributing to the satisfying situation was unrelated to their importance for the dissatisfying situation. In other words, a knowledge of the importance which these job factors had in contributing to the satisfying situation by their presence could not be used to predict the importance the absence of the same job factors would have in contributing to the dissatisfying situation.

However, some of the job factors surveyed were significantly related to the satisfying and dissatisfying situation. These job factors varied, to some degree, between the organizational position and the central life interest of the respondents. Table 35 indicates the job factors for the job-oriented and non-job-oriented employees at each organizational position which had a significant degree of relationship.

The significant correlation tends to indicate that the extent to which the job factors' importance as contributors to the satisfying situation was related to the importance the same job factor had, when absent, in contributing to the dissatisfying situation. These job factors, then, partially substantiate the concept of a single continuum with satisfaction as one extreme and dissatisfaction as the other extreme. For the job factors shown in Table 35, the single continuum theory could not

TABLE 35

THE JOB FACTORS HAVING A SIGNIFICANT DEGREE OF RELATIONSHIP
FOR THE JOB-ORIENTED AND NON-JOB-ORIENTED EMPLOYEES
FROM THE THREE ORGANIZATIONAL POSITIONS SURVEYED

FIRST LINE MANAGERS	
JOB-ORIENTED	NON-JOB-ORIENTED
<i>Merit Increase</i> <i>Employee Benefits</i> <i>Home Life</i>	<i>Merit Increase</i> <i>Employee Benefits</i> <i>Security</i> <i>Challenging Assignment*</i>
MIDDLE MANAGERS	
JOB-ORIENTED	NON-JOB-ORIENTED
<i>Merit Increase</i> <i>Employee Benefits</i> <i>Home Life**</i> <i>Security</i>	 <i>Employee Benefits</i> <i>Home Life**</i> <i>Growth</i>
PROFESSIONAL EMPLOYEES	
JOB-ORIENTED	NON-JOB-ORIENTED
<i>Merit Increase</i> <i>Employee Benefits**</i> <i>Home Life**</i> <i>Promotion*</i> <i>Responsibility**</i> <i>Growth</i>	 <i>Merit Increase**</i> <i>Employee Benefits**</i> <i>Home Life**</i> <i>Working Conditions</i> <i>Responsibility* **</i>

*Job factors among the five most important job factor contributing to the satisfying or dissatisfying situation.

**Job factors which were not significantly different in the importance attached to them as contributors to the satisfying and dissatisfying situation.

be rejected; however, when Columns 5 and 6 of Tables 29 through 34 are examined, the purity of the single continuum relationship seems to be in question. These job factors in Table 35 that were not significantly different in the importance attached to them as a contributor to the satisfying and dissatisfying situation are indicated by (**). The majority of the job factors listed in Table 35 were significantly more important by their presence to satisfaction than they were by their absence for dissatisfaction. By their presence, the majority of job factors, even though related, had a stronger effect in contributing to the satisfying situation than their absence or negative presence had in contributing to the dissatisfying situation.

The usefulness of the single continuum theory for predicting the effect of the important job factors on feelings of satisfaction and dissatisfaction would appear slight from the results presented in Table 35. This assessment is based upon the fact that most of the job factors listed in Table 35, which would give some support to the single continuum theory, are hygiene factors, as indicated by the italics. As indicated earlier, the hygiene factors were found to be relatively unimportant for either the satisfying or dissatisfying situation. This would indicate that the majority of these job factors, which were significantly related to the satisfying

and dissatisfying situation, were of minimal importance in creating either of these situations. A further indication of this can be noted when one considers only those job factors in Table 35 that were among the top five job factors identified earlier as being most important in creating either the satisfying or the dissatisfying situation. Only the three job factors indicated by (*) in Table 35 were among these groups. Thus, among the minority of job factors which lend partial support to the single continuum theory, only three factors were considered to be most important in contributing to either satisfaction or dissatisfaction. The single continuum theory thus appears to be an unsupportable generalization for explaining the relationship the most important job factors have in creating the satisfying and dissatisfying situation.

In addition to the foregoing, the data allow the conclusion to be made that neither Hypothesis 5 nor Hypothesis 6 can be accepted. These results for both the job-oriented and non-job-oriented employees are in direct opposition to the single continuum theory. Neither the job-oriented nor non-job-oriented employees' responses can be used to refute Herzberg's dual continuum theory. For a majority of the job factors surveyed, a factor's importance as a contributor to the satisfying situation cannot be used to determine the importance the absence of

that factor will have in contributing to the dissatisfying situation. This is true regardless of the CLI of the employee. For only those job factors listed in Table 35 was a high similarity between the job factor's importance for the satisfying and dissatisfying situation present. Only for these few job factors is partial support given to the single continuum theory.

Summary

The results presented in this chapter only partially support Herzberg's motivation-hygiene, dual continuum theory. The majority of job factors studied do not operate on a single continuum with one extreme satisfaction and the other extreme dissatisfaction. The results of the present study do not provide conclusive evidence that the dual continuum is operative, but rather point up that the single continuum does not explain sufficiently the relationship the same job factors have for the satisfying and dissatisfying situation.

Regardless of the employees' organizational positions or their central life interests, the motivators were of prime importance in contributing to the satisfying situation and the hygiene factors were of minimal importance.

Contrary to Herzberg's theory, the motivators were also of prime importance in contributing to the dissatisfying situation, and the hygiene factors were of minor importance; this was true irrespective of the employees'

organizational positions or their central life interests.

The job-oriented and non-job-oriented employees showed no significant difference in the importance which they placed upon the job factors as contributors to either the satisfying or dissatisfying situation. This raises serious questions with Dubin's distinction of employee orientation.

In theory, it would seem tenable that some people in industrial organizations view the job as a means to an end, and not an end in itself. If this is true, and the assumption is made that the CLI questionnaire is a valid instrument for categorizing employees into a job-oriented and non-job-oriented classification, the results presented above indicate that Dubin's distinctions concerning what each of these groups of employees want from their job is not totally correct. In the present study there was no significant difference between what the job-oriented and non-job-oriented employees wanted from their jobs. Herzberg classifies such factors as Achievement, Recognition, Use of Best Abilities, and Challenging Assignments, as the individual's need for self-actualization. Both the job-oriented and non-job-oriented employees in the present study sought to fulfill this need on the job. Those job factors which indicate the desire for self-actualization were of prime importance, when present, in contributing to the satisfying situations; and they were of prime importance

when absent in contributing to the dissatisfying situation for both the job-oriented and non-job-oriented employees. Contrary to Dubin, the non-job-oriented employee would appear to be emotionally involved in the job. Even when work is viewed as a necessary social experience, the individual would still seem to seek to actualize himself in this area of social experience. The results of the present study indicate that what motivates employees is not affected by the employees' Central Life Interests.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Two questions concerning employees of industrial organizations which have been studied by numerous researchers were central to this research project:

1. What is the meaning of work for individuals?
2. What do employees want from their jobs?

A sample of employees from three organizational positions of a single business firm--first-line managers, middle managers, and professional employees--was surveyed to examine the generality of two theories which purport to answer these two questions.

To determine the meaning of work for the employees studied, Dubin's theory of the Central Life Interest of employees was used as a framework. To determine what the employees surveyed wanted from their jobs, an adaptation of Herzberg's motivation-hygiene, dual continuum theory was used as a framework. Chapters III and IV contained a discussion of the generality of these two theories and the conclusions which could be drawn from the data obtained in the present study. In Chapter V a basic problem for industrial organizations and management theorists was

examined: Does the meaning which an individual attaches to work affect what motivates that individual? This basic problem is believed to include the two questions posed above. Before discussing whether such a relationship exists, it was first necessary to determine what each of these three groups of employees want from their jobs, and then to classify the employees based upon the meaning they attached to work and the workplace.

To determine what employees want from their jobs, they were asked to analyze their job situation and to indicate what job factors when present would be most important in contributing to a feeling of satisfaction, and what job factors, when absent, would be most important in contributing to a feeling of dissatisfaction. Friedlander's questionnaire, adapted from Herzberg's study, was utilized to gain this information.

Herzberg has theorized that two independent groups of job factors exist in the job situation. One group of job factors, titled Motivators, by their presence, lead to satisfying situations, but their absence does not lead to dissatisfying situations. The second group of job factors, titled Hygiene Factors, lead to dissatisfying situations when absent or negatively present, but they do not lead to satisfying situations by their presence. These two groups of job factors are said to operate independently. Conceptually, the motivators are intrinsic

to the job and the hygiene factors are extrinsic to the job. Herzberg's theory challenged the single continuum theories of motivation which state that the numerous job factors are not two independent groups, but rather when taken together their presence creates job satisfaction, and their absence creates job dissatisfaction. These theories make no distinction between motivators and hygiene factors, for they contend that no such distinction exists. All job factors, whether extrinsic or intrinsic to the job, cause a shift along a single continuum where the two extremes are satisfaction and dissatisfaction.

To test the generality of Herzberg's motivation-hygiene, dual continuum theory for the three organizational groups of employees included in the present study, and to determine what these employees wanted from their jobs, the three hypotheses were formulated.

1. Motivators, as defined by Herzberg, are primarily related to satisfying situations, regardless of organizational position.
2. Hygiene factors, as defined by Herzberg, are primarily related to dissatisfying situations, regardless of organizational position.
3. Most of the job factors are significantly related to both the satisfying and dissatisfying situation.

For the convenience of the reader the essential elements of these hypotheses and this study's findings are presented in Table 36. A detailed discussion of these findings follows. For a tabular summation of the findings and hypotheses of the total study see Table 39, page 228

TABLE 36

SUMMARY FINDINGS OF THIS STUDY'S HYPOTHESES
BASED ON HERZBERG'S WORK

Hypotheses	Subject	Situation	Organization Position	Findings
1	Motivators as contributors to	Satisfying	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
2	Hygiene factors as contributors to	Dissatisfying	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
3	Job factors relationship to	Satisfying and dissatisfying	First-line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject

The five most important job factors contributing to the satisfying situation for the middle managers and professional employees studied were all motivators. Four of the top five most important job factors contributing to the satisfying situation for the first-line managers studied were also motivators. Hypothesis One, therefore, could not be rejected for the employees included in the present study.

When absent the five most important job factors contributing to the dissatisfying situation for all three groups of employees studied also were motivators. The five least important job factors contributing to the dissatisfying situation for all employees studied were hygiene factors. Therefore Hypothesis Two could not be accepted for the employees in this study. The absence of motivators was of

prime importance in contributing to the dissatisfying situation.

The order of importance the job factors had in contributing to satisfaction by their presence and to dissatisfaction by their absence appeared to be quite similar. Initial indications were that most of the job factors surveyed could be conceived as operating along a single continuum where the extremes were satisfaction and dissatisfaction. However, further analysis indicated that only a small number of the job factors surveyed had a significant degree of relationship in contributing to both the satisfying and dissatisfying situation for the employees studied. Knowledge of the importance most job factors had in contributing to the satisfying situation could not be used to predict the importance these same job factors would have, by their absence, in contributing to the dissatisfying situation. Therefore, Hypothesis Three could not be accepted for the employees included in the present study.

The framework provided by Herzberg was only partially supported for the employees studied. The single continuum theory appears to be an over-simplification for explaining the relationship of the job factors in contributing to the satisfying and the dissatisfying situation. Nevertheless, the data could not be used to refute Herzberg's contention that satisfaction and dissatisfaction exist on two separate continuum. The intrinsic-satisfying, extrinsic-

dissatisfying relationship presented by Herzberg was not substantiated by the present study. The motivators were found to be of prime importance for both the satisfying and the dissatisfying situation and the hygiene factors were relatively unimportant for either the satisfying or dissatisfying situation.

As indicated by the importance placed upon such job factors as "Achievement," "Challenging Assignment" and "Recognition," employees in all organizational positions appear to want a degree of self-actualization from their job. When offered the opportunity for self-actualization through the job, the employees experienced a feeling of high satisfaction, and the lack of such an opportunity caused a feeling of high dissatisfaction.

The responses to Dubin's Central Life Interest questionnaire were used not only to determine the meaning the three groups of employees attached to work and the workplace, but also to test the generality of Dubin's theory as applied to the employees included in the present study.

Dubin concludes that the job is no longer the central life interest for a majority of industrial workers and that this interest has shifted to off the job activities. Thus, within industrial organizations, there are two types of employees: the minority who center their lives on the job and view the job as an end in itself, and the majority

who center their lives off the job and view the job as a means to other ends.

Hypothesis Four was formulated to test this conclusion for the managerial and professional employees included in the present study.

4. A significant proportion of the employees studied will rate non-job interest high in their value orientation regardless of organizational position.

For the convenience of the reader the essential elements of the hypotheses related to Dubin's theory (i.e. Hypotheses 4-8) and this study's findings are presented in Table 37. A detailed discussion of these findings follows.

A proportion of the respondents significantly greater than 50 per cent was used as the criterion to accept or reject those hypotheses adapted from Dubin.

For only the professional employees was the proportion of non-job-oriented respondents significantly greater than 50 per cent. Thus professional employees were the only group for which Hypothesis Four could not be rejected. Although the absolute number of non-job-oriented first-line, and middle managers was large, the proportion was not significantly greater than the 50 per cent criterion. Based upon these results, Hypothesis Four could not be accepted for the first-line and middle managers surveyed.

The Central Life Interest questionnaire was also designed to determine some consequences of work and the work place being viewed as a necessary social behavior.

TABLE 37

SUMMARY FINDINGS OF THIS STUDY'S HYPOTHESES
BASED ON DUBIN'S WORK

Hypotheses	Subject	CLI	Organization Position	Findings
4	% Responses to Value Orientation	Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Accept
5	% Responses to Informal Experiences	Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
6	% Responses to Valued Social Experiences	Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Reject Accept
7	% Responses to Organizational Experiences	Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
8	% Responses to Technological Experiences	Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept

Dubin predicts that primary human relations take place only in situations where social experience is valued by the individual. The informal group experience sector, and the valued social experience sector of the Central Life Interest questionnaire were scored to determine the validity of this prediction.

Two hypotheses were adapted from Dubin to test the generality of this prediction for the managerial and professional employees studied.

5. A significant proportion of the employees studied will be non-job-oriented with respect to informal group experiences when measured on the relevant portion of the Central Life Interest questionnaire, regardless of organizational position.
6. A significant proportion of the employees studied will be non-job-oriented with respect to valued social experiences when measured by the general experience section of the Central Life Interest questionnaire, regardless of organizational position.

For all groups of the employees surveyed, Hypothesis Five could not be rejected. For the informal group experiences surveyed by the Central Life Interest questionnaire, a proportion significantly greater than 50 per cent of the respondents were non-job-oriented.

For the first-line managers and professional employees surveyed, Hypothesis Six could not be rejected. With respect to the general experiences surveyed by the Central Life Interest questionnaire, significantly more than 50 per cent of the respondents in these two groups was non-job-oriented; for the middle managers surveyed, Hypothesis Six could not be accepted because the proportion of non-job-oriented middle manager respondents was not significantly greater than 50 per cent.

Based upon the informal group experiences surveyed by the Central Life Interest questionnaire the same direction found by Dubin for industrial employees was indicated for both the managerial and professional employees: the majority preferred the life of an informal group which is centered off the job. However, the proportion of

non-job-oriented responses from these two employee groups was significantly less than the non-job-oriented responses of the industrial employees surveyed by Dubin. In the aggregate, the same general conclusion appeared valid but the number of non-job-oriented respondents indicated that the strength of these findings was less than Dubin's original results indicated.

Based upon the general experiences surveyed by the Central Life Interest questionnaire, the same general conclusion reached by Dubin was indicated for the first-line managers, and professional employees included in the present study. These general experiences sampled--i.e., activities which give pleasure, satisfaction or general reward--were preferred to center around off-the-job activities. For these employees, the emotional impact of the work environment appeared low in terms of the general experiences surveyed. Only the middle managers preferred the general experiences surveyed to be on the job and for them the emotional impact of the work environment was neither as low as the other two employee groups in this study nor as low as the industrial employees in Dubin's study.

The final prediction made by Dubin was that individual attachment to a situation in which social experience is not valued will be to the most physically and directly obvious characteristic of that situation. The organization sector and the technological sector of the Central Life

Interest questionnaire were designed and chosen by Dubin to represent that characteristic of industrial life. Two hypotheses, adapted from Dubin's original study, provided a test of some basic attachment to industrial organizations for the managerial and professional employees included in the present study.

7. A significant proportion of the employees studied will score job-oriented for their organizational experiences when measured on the organization section of the Central Life Interest questionnaire, regardless of organization position.
8. A significant proportion of the employees studied will score job-oriented for their experiences with technological aspects of their environment when measured on the technological section of the Central Life Interest questionnaire, regardless of organizational position.

For all employees included in the present study Hypotheses Seven and Eight could not be rejected. For both the organizational experiences and the technological experiences surveyed by the Central Life Interest questionnaire, the proportion of job-oriented respondents for all three organizational groups were significantly greater than 50 per cent.

Based upon the organizational experiences sampled by the Central Life Interest questionnaire, the same general conclusion reached by Dubin was indicated for all employees included in the present study. The employing organization was the most important formal organization, when judged in terms of standard and typical organizational

ties and bonds. Re-emphasis needs to be given to Dubin's statement that the respondents were not confusing a liking for their company or its officials with a preference for their workplace as the most important formal organization in their lives.

From the technological experiences sampled by the Central Life Interest questionnaire, the same general conclusion reached by Dubin was indicated for the employees included in the present study: A significant proportion identified their workplace as the locale for their preferred relationships with the purely technical aspects of their environment.

The responses of the employees studied to the four sectors of the Central Life Interest questionnaire (informal, general, organization, and technical experiences), demonstrate that the prominence of the workplace varies considerably depending on the behavior being sampled. Work and the workplace were least important as a setting for preferred informal relations and general experiences, but most important as a setting for member formal organizational relationships to take place and a setting in which the individual related himself to the technological features of his environment. Thus the responses of these employees support Dubin's statement that employees have a well-developed sense of attachment to their work and

workplace without a corresponding sense of total commitment.

The present study does not support Dubin's conclusion concerning the value orientation of employees in general. Only among the professional employees was a significant proportion of the respondents non-job-oriented in their value orientation; the responses of only this group support Dubin's conclusion that a majority of employees center their lives off the job. Among the first-line and middle managers studied, the proportion who center their lives off the job was approximately equal to those who center their lives on the job.

To determine whether the meaning attached to the job affected what these employees want from their job, the job-oriented and non-job-oriented employees were evaluated separately, and reported in Chapter V. The importance attached to the job factors as contributors was used to determine whether a relationship of this nature existed.

From Dubin inferences were made that the different meaning attached to work and the workplace by job-oriented and non-job-oriented employees would affect the order of importance they placed upon the job factors. The following hypotheses were formulated based upon Dubin's statement that the job-oriented employee seeks self-actualization on the job, while the non-job-oriented employee seeks self-actualization off the job.

9. Motivators, as defined by Herzberg, are primarily related to the satisfying situation, for the job-oriented employees, regardless of organization position.
10. Hygiene factors, as defined by Herzberg, are primarily related to satisfying situations, for the non-job-oriented employees, regardless of organization position.
11. Motivators, as defined by Herzberg, are primarily related to the dissatisfying situation, for the job-oriented employees, regardless of organizational position.
12. Hygiene factors, as defined by Herzberg, are primarily related to the dissatisfying situation, for the non-job-oriented employees, regardless of organizational position.
13. For the job-oriented employees most of the job factors are significantly related to both the satisfying and dissatisfying situation.
14. For the non-job-oriented employees, most of the job factors are significantly related to both the satisfying and dissatisfying situation.

For the convenience of the reader the essential elements of these hypotheses and the findings of this study are presented in Table 38. A detailed discussion of these findings follows.

The findings were that the most important job factors contributing to the satisfying situation were motivators and this was true regardless of the respondents' organizational position or central life interest. The hygiene factors were relatively unimportant in contributing to the satisfying situation regardless of the organizational position or central life interest of the respondents. Based upon these results, Hypothesis Nine could not be

TABLE 38

SUMMARY FINDINGS OF THIS STUDY'S HYPOTHESES RELATING
TO HERZBERG'S AND DUBIN'S CONCEPTS

Hypotheses	Subject	Situation	CLI	Organization Position	Findings
9	Motivators as Contributors to	Satisfying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
10	Hygiene Factors as Contributors to	Satisfying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
11	Motivators as Contributors to	Dissatis- fying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
12	Hygiene Factors as Contributors to	Dissatis- fying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
13	Job Factors Relationship to	Satisfying and Dis- satisfying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
14	Job Factors Relationship to	Satisfying and Dis- satisfying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject

rejected, and Hypothesis Ten could not be accepted. In short, the meaning attached to work, in terms of the central life interest of the employees, did not significantly alter the job factors which employees felt were most important in contributing to the feeling of satisfaction.

The job factors of prime importance in contributing to the dissatisfying situation were also motivators. This was true, regardless of the organizational position or central life interest of the respondents. The hygiene factors were relatively unimportant in contributing to the dissatisfying situation, regardless of the employees' organizational position or central life interest. Based upon these results Hypothesis Eleven could not be rejected and Hypothesis Twelve could not be accepted. The meaning attached to work, in terms of the central life interest of the employees, did not significantly alter the job factors which employees felt were most important in contributing to the feeling of dissatisfaction.

The same job factors appeared to be of prime importance for both the satisfying and dissatisfying situation, regardless of the central life interest of the employees surveyed. Only a few of the job factors surveyed had a significant degree of relationship in contributing both to the satisfying and dissatisfying situation, regardless of the organization position or central life interest of the respondents. This indicated that

most of the job factors surveyed did not operate along a single continuum where the extremes were satisfaction and dissatisfaction. Moreover, knowledge of the importance a job factor had in contributing to the satisfying situation could not be used to predict the importance that factor would have in contributing to the dissatisfying situation. Based upon these results, Hypotheses Thirteen and Fourteen could not be accepted.

For the convenience of the reader a tabular summation of the essential elements of the hypotheses tested as well as the findings of the current study are presented in Table 39.

For those employees surveyed in the present study, two primary conclusions are indicated. First, the Herzberg motivation-hygiene, dual continuum theory of motivation was only partially supported even when the central life interest of the respondents was taken into consideration. This research supports Herzberg in that the single continuum theory appears to be an oversimplification of the relationship job factors have in contributing to satisfaction and dissatisfaction. The results of the present study do not refute Herzberg's contention that the job factors operate on dual continuum. However, this research does not comport with Herzberg's findings that the intrinsic job factors are most important for satisfaction and unimportant for dissatisfaction, whereas the extrinsic job

TABLE 39

SUMMARY FINDINGS OF THIS STUDY'S HYPOTHESES

Hypotheses	Subject	Situation	CLI	Organization Position	Findings
1	Motivators as contributors to	Satisfying		First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
2	Hygiene Factors as contributors to	Dissatisfying		First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
3	Job Factors relationship to	Satisfying and Dissatisfying		First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
4	% Responses to Value Orientation		Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Accept
5	% Responses to Informal Experiences		Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
6	% Responses to Valued Social Experiences		Non-Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Reject Accept
7	% Responses to Organizational Experiences		Job-Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept

TABLE 39--Continued

Hypotheses	Subject	Situation	CLI	Organization Position	Findings
8	% Responses to Techno- logical Experiences		Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
9	Motivators as contributors to	Satisfying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
10	Hygiene Factors as contributors to	Satisfying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
11	Motivators as contributors to	Dissatis- fying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Accept Accept Accept
12	Hygiene Factors as contributors to	Dissatis- fying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
13	Job Factors relationship to	Satisfying and Dis- satisfying	Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject
14	Job Factors relationship to	Satisfying and Dis- satisfying	Non-Job- Oriented	First-Line Mgrs. Middle Mgrs. Professionals	Reject Reject Reject

factors are most important for dissatisfaction and unimportant for satisfaction. The intrinsic job factors were found to be important for both satisfaction and dissatisfaction, and the extrinsic job factors were found to be relatively unimportant for either satisfaction or dissatisfaction.

Second, even though a large number of the employees surveyed were non-job-oriented in their value orientation what this group wants or expects from their job does not appear to differ from what Dubin found to be the wants of job-oriented employees. Even though the non-job-oriented employees are not totally committed to the job, they still appear to become emotionally involved in their job; this is contrary to Dubin's conclusion. The results of the present research do not support Dubin's statement that "self realization may be a matter of indifference to people for who work is not a central life interest."¹ Those job factors which are indicative of self-actualization were also of prime importance for the non-job-oriented employees surveyed. By their presence, those factors were of prime importance in contributing to feelings of high satisfaction. The non-job-oriented employees were not indifferent to their absence, but rather suffered feelings of high dissatisfaction. The non-job-oriented employees studied

¹Dubin, Human Relations in Administration, p. 91.

appear to negate Dubin's contention that persons are able to achieve self-actualization in some areas of their lives without requiring it in all areas. The results of the present study appear to be more in line with Herzberg's conclusion that "man tends to actualize himself in every area of his life, and his job is one of the most important areas."²

From these results certain implications for management can be drawn. Those theorists who propose positive motivation by building into the job the opportunity for employee self-actualization, appear to be correct. Thus job design, organization structure, leadership styles and other areas of personnel management are important aspects of management's effort to build into the job and the job environment the opportunity for individual self-actualization. It appears likely that as an organization increases in size and as the amount of off-the-job social experiences are increased, more employees will increasingly center their lives off the job. The problem is not whether organizations can reverse this trend and maintain or increase the proportion of employees that center their lives on the job. The question is, rather, how can organizations increase their effectiveness amidst these changing conditions? An integral part of the answer

²Herzberg, The Motivation to Work, p. 114.

concerns an understanding of what employees want or expect from their jobs. For those employees included in the present study the answer appears to be found in increasing the opportunity for individual self-actualization on the job.

Caution should be taken about further generalizing from these findings and conclusions to groups of employees of different and specific characteristics. More research must be done in these areas before any such generalizations are warranted.

Certain directions appear to present themselves where additional work may be done.

The first direction would be in a replication of the current study utilizing employees from different status and occupational levels both within manufacturing organizations as well as employees in organizations which serve a different purpose than manufacturing.

Secondly, the current study, as many studies of industrial employees, has centered on the male working population. A suggested area for further research is a replication utilizing female respondents from different status and occupational levels both within manufacturing organizations as well as organizations which serve a different purpose than manufacturing.

Lastly, the current study sought to answer the question what is the meaning of work for the individual by

utilizing the concept of the employees' central life interest. Other dimensions concerning the meaning of work and the workplace could be analyzed to determine their effect on what employees want from their jobs. The concept and dimensions of "alienation" presents one approach to help qualify and clarify what various employees want from their jobs.

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APPENDIX I

**COVER LETTER, QUESTIONNAIRE AND FOLLOW-UP
POSTAL CARD USED IN PRESENT STUDY**

Dear Sir:

In recent years many studies have been conducted to learn about employee feelings toward their work. Some have been applied in industry with favorable results for employees and their companies. However, some of them have developed information, or been given interpretations, of a contradictory nature. As a graduate student at the University of Oklahoma I am conducting this study to help resolve some of the apparent contradictions which have come out of previous research on the subject.

The outline of the study has been approved by a faculty committee at the University. It calls for obtaining information from a large number of employees. Because (name of company) is one of (state's) large employers, it was approached and agreed to cooperate in making this study.

You are one of approximately 600 persons in managerial and professional positions to whom this letter is addressed. Since the number of responses will have an effect on the validity of the study, I hope each of you will give me the information requested on the enclosed three-part questionnaire. You need only to make check marks, and completion should not require more than an estimated 30 minutes.

Because I desire to get your own personal feelings, please do not discuss your answers with others. Although I want personal views, all responses will be anonymous. Do not sign your name to any page. A stamped envelope is enclosed so that you can return the completed questionnaire directly to me at the University of Oklahoma. At no time will any Company representative see your individual response.

To facilitate completion of the survey, I would appreciate your filling out this questionnaire, and mailing it to me today or tomorrow. Your influence on the research results in this important area depends upon your participation. In making this contribution to this research project you can be assured that your feelings and opinions will be counted.

Thank you very much for your cooperation.

Sincerely,



Matt M. Starcevic
University of Oklahoma

MMS:db
Enclosure

The total questionnaire has three parts. Brief instructions are given at the beginning of each part. Please read the instructions carefully before checking your responses.

These three questions ask for some personal information of the people who are participating in this study. Please check the appropriate space as it applies to you.

1. Age:

<input type="checkbox"/> under 20	<input type="checkbox"/> 30-34	<input type="checkbox"/> 50-54
<input type="checkbox"/> 20-24	<input type="checkbox"/> 35-39	<input type="checkbox"/> 55-59
<input type="checkbox"/> 25-29	<input type="checkbox"/> 40-44	<input type="checkbox"/> 60-65
	<input type="checkbox"/> 45-49	

2. How long have you been a () with your present company?

<input type="checkbox"/> less than 1 year	<input type="checkbox"/> 10-14 years	<input type="checkbox"/> 30-34 years
	<input type="checkbox"/> 15-19 years	<input type="checkbox"/> 35-39 years
<input type="checkbox"/> 1-4 years	<input type="checkbox"/> 20-24 years	<input type="checkbox"/> 40-44 years
<input type="checkbox"/> 5-9 years	<input type="checkbox"/> 25-29 years	<input type="checkbox"/> over 45 years

3. How long have you been an employee of your present company?

<input type="checkbox"/> less than 1 year	<input type="checkbox"/> 10-14 years	<input type="checkbox"/> 30-34 years
	<input type="checkbox"/> 15-19 years	<input type="checkbox"/> 35-39 years
<input type="checkbox"/> 1-4 years	<input type="checkbox"/> 20-24 years	<input type="checkbox"/> 40-44 years
<input type="checkbox"/> 5-9 years	<input type="checkbox"/> 25-29 years	<input type="checkbox"/> over 45 years

PART I

Instructions:

For each of the following statements, there are three possible answers. Please read each statement and the three answers very carefully.

After you have read the statement and the three answers under it, pick out the answer which comes closest to your

own feelings about the matter. Place a check in the space in front of this answer.

Sometimes, none of the answers will exactly fit your own ideas, but pick out the one which is closest to the way you feel and check it.

Please be sure to check one answer and only one answer to every statement. Please DO NOT SKIP ANY STATEMENT!

1. I enjoy reading technical articles and books to learn more about

_____ only something very special and important
 _____ my hobby or other interests
 _____ my job

2. Interruptions bother me most

_____ when working at the office
 _____ when working at home
 _____ hardly ever

3. I do my best work

_____ when I am at the office
 _____ when I'm not bothered by people
 _____ when I work around the house or on a community project

4. I would rather accept a committee chairmanship

_____ anytime, any place
 _____ of a company operating or advisory committee
 _____ in an organization or club of which I am a member

5. When I am doing some work, I usually try not to waste time

_____ I seldom worry about wasting time
 _____ on a project at home or in the community
 _____ on my job

6. I believe that

_____ helping my fellow men is more important than anything else
 _____ my career is more important than anything else
 _____ most things are about equally important

7. In my free time at work, I would rather

- ☐ talk about whatever comes up
 - ☐ talk about things I am working on in the company
 - ☐ talk about things that are going on in sports or politics
-

8. I am most interested in

- ☐ things about my job
 - ☐ things I usually do around the house or in the community
 - ☐ just about everything I do
-

9. I most enjoy keeping

- ☐ my things around the house in good shape
 - ☐ my mind off such things
 - ☐ my desk and reports in good shape at the office
-

10. I prefer to have as friends

- ☐ people I get to know in my work
 - ☐ people who share my leisure interests
 - ☐ different people according to what they're like
-

11. Moving ahead on my job

- ☐ is not so important to me that I would give up time to make contacts and get information about my work
 - ☐ is so important to me that I'm willing to spend extra time to make contacts and pick up information about my work
 - ☐ is not particularly important to me
-

12. If I received a promotion that meant moving to another city

- ☐ my friendships wouldn't make any difference in my moving
 - ☐ I would most dislike leaving my friends at the office
 - ☐ I would most dislike leaving my other friends
-

13. The people I can count on most when I need help are

- ☐ the friends I have at work
 - ☐ the friends I have in the community
 - ☐ almost any of my friends
-

14. When I am worried, it is usually about

- ☐ how well I am doing in my career
 - ☐ just little things
 - ☐ things that happen at home
-

15. When I am not with them, the people I miss most are

- ☐ just people in general
 - ☐ my friends around town
 - ☐ my friends with whom I work
-

16. I am happier if I am praised for doing a good job of

- ☐ something at work
 - ☐ something in an organization I belong to
 - ☐ anything, it doesn't matter very much what
-

17. If I were sick and had to stay home, I would most hate

- ☐ missing a day's work
 - ☐ missing almost anything I usually do
 - ☐ missing a meeting of an organization I belong to
-

18. The most pleasant things I do are concerned with

- ☐ relaxation
 - ☐ my career
 - ☐ different things at different times
-

19. I hope my children can

- ☐ work in the same kind of occupation as mine
 - ☐ work in any occupation, just so they enjoy their work
 - ☐ work in a different kind of occupation from mine
-

20. In my spare time

- ☐ I just prefer to relax
 - ☐ I often think of better ways of doing my work
 - ☐ I have a thousand things that need doing
-

21. I sometimes hope that

- ☐ I'll get special recognition for doing a good job at work
 - ☐ I'll get to be more important member of my club, church or lodge
 - ☐ such things will not bother me
-

22. If I needed ready cash within a few hours for an emergency on a Sunday and had to borrow it, I would probably turn to

- ☐ people I know in the community
 - ☐ people I know in the company
 - ☐ anyone who would lend it to me
-

23. It is easier for me to take a chwing out

- ☐ from anyone--I listen and forget it
 - ☐ from a policeman
 - ☐ from my boss
-

24. I would donate more money in the case of a collection

- ☐ if the solicitor was a friend of mine
 - ☐ for a charitable organization
 - ☐ for a wedding present or retirement gift for a colleague at the office
-

25. If I have to work with someone else who is a slow worker

- ☐ I am annoyed regardless of where we are working
 - ☐ I am most annoyed on the job at the office
 - ☐ I am most annoyed on a volunteer community project
-

26. In getting a job done, it is most important for me to have adequate freedom to plan it

- ☐ at the office
 - ☐ on a community project
 - ☐ anytime, any place
-

27. I would rather take my vacation with

- ☐ some friends from work
 - ☐ my family
 - ☐ by myself
-

28. I most like

- ☐ talking with friends about things that are happening
 - ☐ talking about whatever my friends want to talk about
 - ☐ talking with my friends about my work and what is happening in the company
-

29. In order to get ahead in the world

- ☐ you have to have a lot of luck
 - ☐ you have to be well liked where you work
 - ☐ you have to be well liked and known in the community
-

30. If a company project I knew about but was not involved in gave everybody trouble, and I heard another company had solved this problem

- ☐ I have too many problems of my own to get involved
 - ☐ I would tell my boss or colleagues about it
 - ☐ I don't worry about such things
-

31. I think that if I were suddenly to get a much better job

- ☐ probably my life would not change much except that I'd live a little better
 - ☐ probably my life would change and be better in many ways
 - ☐ I wouldn't know what would happen to my life
-

32. I would much rather be a leader

- ☐ in any organization, just so it's a good one
 - ☐ in my club or church
 - ☐ in my work
-

PART II

Instructions:

This part of the questionnaire is different from Part I. First of all, you are asked to think of a time when you felt exceptionally satisfied about your job--either your present job or any other job you have had. Below is a list of some factors which may have contributed to your satisfied feeling at the time. Keep this time in your mind as you read the list of eighteen factors. You are asked to report how important was each of these factors in the particular experience you are recalling. Indicate the importance by placing an X in one and only one of the four columns to the right of each of the eighteen factors.

	This factor was not present	This factor was present but was not important	This factor was fairly important	This factor was of major importance
1. I felt there was a good chance I'd be promoted.	1 ()	2 ()	3 ()	4 ()
2. I received a particularly challenging assignment.	1 ()	2 ()	3 ()	4 ()
3. A job I did received recognition as being a particularly good piece of work.	1 ()	2 ()	3 ()	4 ()
4. The working relationship I had with my supervisor was very good.	1 ()	2 ()	3 ()	4 ()
5. The working relationship I had with coworkers at my level was very good.	1 ()	2 ()	3 ()	4 ()

	This factor was not present	This factor was present but was not important	This factor was fairly important	This factor was of major importance
6. I was working under a supervisor who really knew his job.	1 ()	2 ()	3 ()	4 ()
7. I was expecting (or received) a merit increase.	1 ()	2 ()	3 ()	4 ()
8. I had a real feeling of achievement in the work I was doing.	1 ()	2 ()	3 ()	4 ()
9. I had exceptionally good working conditions and equipment.	1 ()	2 ()	3 ()	4 ()
10. I was given increased responsibility in my job.	1 ()	2 ()	3 ()	4 ()
11. I felt secure in my job.	1 ()	2 ()	3 ()	4 ()
12. I was getting training and experience on the job that were helping my growth.	1 ()	2 ()	3 ()	4 ()
13. The company improved an employee benefit program that was of importance to me.	1 ()	2 ()	3 ()	4 ()
14. I liked the kind of work I was doing.	1 ()	2 ()	3 ()	4 ()
15. My job situation changed in such a way as to improve my home life.	1 ()	2 ()	3 ()	4 ()
16. I was working in a group that operated very smoothly and efficiently.	1 ()	2 ()	3 ()	4 ()

	This factor was not pres- ent	This fac- tor was present but was not impor- tant	This factor was fairly impor- tant	This factor was of major impor- tance
17. Management policies that affected my work group took into consideration the personal feel- ings of employees.	1 ()	2 ()	3 ()	4 ()
18. The job required the use of my best abilities.	1 ()	2 ()	3 ()	4 ()

PART III

Instructions:

This part of the questionnaire is similar to Part II except that you are asked to think of a time when you felt exceptionally dissatisfied about your job--either your present job or any other job you have had. Below is a list of some factors which may have contributed to your dissatisfied feeling at the time. Keep this time in your mind as you read the list of eighteen factors. You are asked to report how important was each of these factors in the particular experience you are recalling. Indicate the importance by placing an X in one and only one of the four columns to the right of each of the eighteen factors.

	This factor was not present	This factor was present but was not important	This factor was fairly important	This factor was of major importance
1. I felt there was a poor chance I'd get promoted.	1 ()	2 ()	3 ()	4 ()
2. I received few particularly challenging assignments.	1 ()	2 ()	3 ()	4 ()
3. A job I did received little recognition as being a particularly good piece of work.	1 ()	2 ()	3 ()	4 ()
4. The working relationship I had with my supervisor was very poor.	1 ()	2 ()	3 ()	4 ()
5. The working relationship I had with co-workers at my level was very poor.	1 ()	2 ()	3 ()	4 ()
6. I was working under a supervisor who really did not know his job.	1 ()	2 ()	3 ()	4 ()

	This factor was not pres- ent	This fac- tor was present but was not impor- tant	This factor was fairly impor- tant	This factor was of major impor- tance
7. I was not expecting (or did not receive) a merit increase.	1 ()	2 ()	3 ()	4 ()
8. I had little feeling of achievement in the work I was doing.	1 ()	2 ()	3 ()	4 ()
9. I had exceptionally poor working condi- tions and equipment.	1 ()	2 ()	3 ()	4 ()
10. I was not given increased responsi- bility in my job.	1 ()	2 ()	3 ()	4 ()
11. I felt insecure in my job.	1 ()	2 ()	3 ()	4 ()
12. I was not getting training and exper- ience on the job that were helping my growth.	1 ()	2 ()	3 ()	4 ()
13. The company did not introduce an employee benefit program that was of importance to me.	1 ()	2 ()	3 ()	4 ()
14. I disliked the kind of work I was doing.	1 ()	2 ()	3 ()	4 ()
15. My job situation changed in such a way as to aggravate my home life.	1 ()	2 ()	3 ()	4 ()
16. I was working in a group that operated with discord and inefficiency.	1 ()	2 ()	3 ()	4 ()

This factor was not pres- ent	This fac- tor was present but was not impor- tant	This factor was fairly impor- tant	This factor was of major impor- tance
--	--	---	--

17. Management policies
that affected my
work group did not
take into consider-
ation the personal
feelings of employ-
ees.

1 () 2 () 3 () 4 ()

18. The job did not
require the use of
my best abilities.

1 () 2 () 3 () 4 ()

PLEASE RE-CHECK THE ENTIRE QUESTIONNAIRE TO MAKE SURE YOU HAVE
ANSWERED ALL THE QUESTIONS!

THANK YOU.

Follow-Up Postal Card:

Gentlemen:

Recently you received a questionnaire from me. Since the responses are completely anonymous I have no way of knowing who has returned the completed questionnaire and who has not. If you have completed and returned the questionnaire, I want to thank you for your cooperation.

If you have not yet completed the questionnaire, or have not mailed it to me, please take the time to do so now. Your views are just as important as every other person and the study will be more valuable to everyone if we have 100% response. Thank you.

Sincerely,

Matt M. Starcevich

APPENDIX II

SUMMARY RESULTS OF ANALYSIS OF VARIANCE

TABLE 40
 SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 FIRST-LINE MANAGERS' RESPONSES TO
 THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	415.4790	17	24.4399	24.2745*
WITHIN GROUPS	2790.8982	2772	1.0068	
TOTAL	3206.3772	2789		

* significant at the .01 level

N = 155

TABLE 41
SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
MIDDLE-MANAGERS' RESPONSES TO
THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	1107.6379	17	65.1552	69.9852*
WITHIN GROUPS	3033.1494	3258	.9310	
TOTAL	4140.7873	3275		

* significant at the .01 level

N = 182

TABLE 42

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 PROFESSIONAL EMPLOYEES' RESPONSES TO
 THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	1352.0339	17	79.5314	94.7918*
WITHIN GROUPS	2718.3970	3240	.8390	
TOTAL	4070.4309	3257		

* significant at the .01 level

N = 181

TABLE 43

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 FIRST-LINE MANAGERS' RESPONSES TO
 THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	294.0640	17	17.2979	12.3791*
WITHIN GROUPS	3873.4514	2772	1.3973	
TOTAL	4167.5117	2789		

* significant at the .01 level

N = 155

TABLE 44

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
MIDDLE-MANAGERS' RESPONSES TO
THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	607.3726	17	35.7278	27.5684 *
WITHIN GROUPS	4222.2695	3258	1.2960	
TOTAL	4829.6421	3275		

* significant at the .01 level

N = 182

TABLE 45

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
PROFESSIONAL EMPLOYEES' RESPONSES TO
THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	664.4983	17	39.0881	30.0944*
WITHIN GROUPS	4208.2813	3240	1.2989	
TOTAL	4872.7796	3257		

* significant at the .01 level

N = 181

TABLE 46

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 JOB-ORIENTED FIRST-LINE MANAGERS' RESPONSES
 TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	177.3972	17	10.4351	10.6111 *
WITHIN GROUPS	1203.7017	1224	.9834	
TOTAL	1381.0986	1241		

* significant at the .01 level

N = 69

TABLE 47

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 JOB-ORIENTED MIDDLE MANAGERS' RESPONSES
 TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	628.0664	17	36.9451	40.7477 *
WITHIN GROUPS	1550.4216	1710	.9067	
TOTAL	2178.4880	1727		

* significant at the .01 level

N = 96

TABLE 48

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE:
 JOB-ORIENTED PROFESSIONAL EMPLOYEES RE-
 SPONSES TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	594.9001	17	34.9941	41.0527 *
WITHIN GROUPS	1150.7671	1350	.8524	
TOTAL	1745.6672	1367		

* significant at the .01 level

N = 76

TABLE 49

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
JOB-ORIENTED FIRST-LINE MANAGERS' RESPONSES
TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	247.2908	17	14.5465	14.1893 *
WITHIN GROUPS	1568.5222	1530	1.0252	
TOTAL	1815.8130	1547		

* significant at the .01 level

N = 86

TABLE 50

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
 JOB-ORIENTED MIDDLE MANAGERS' RESPONSES
 TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	490.9570	17	28.8798	30.1647*
WITHIN GROUPS	1464.8262	1530	.9574	
TOTAL	1955.7832	1547		

* significant at the .01 level

N = 86

TABLE 51

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
JOB-ORIENTED PROFESSIONAL EMPLOYEES' RESPONSES
TO THE SATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	771.5935	17	45.3878	54.7473*
WITHIN GROUPS	1551.9680	1872	.8290	
TOTAL	2323.5615	1889		

* significant at the .01 level

N = 105

TABLE 52

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: JOB-
ORIENTED FIRST-LINE MANAGERS' RESPONSES
TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	156.3901	17	9.1994	6.4134*
WITHIN GROUPS	1755.7004	1224	1.4344	
TOTAL	1912.0903	1241		

* significant at the .01 level

N = 69

TABLE 53

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: JOB-
ORIENTED MIDDLE MANAGERS' RESPONSES
TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	334.2253	17	19.6603	14.8872*
WITHIN GROUPS	2258.2632	1710	1.3206	
TOTAL	2592.4885	1727		

* significant at the .01 level

N = 96

TABLE 54

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: JOB-
ORIENTED PROFESSIONAL EMPLOYEES" RESPONSES
TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	344.9260	17	20.2898	15.3050*
WITHIN GROUPS	1789.6873	1350	1.3257	
TOTAL	2134.6133	1367		

* significant at the .01 level

N = 76

TABLE 55

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
JOB-ORIENTED FIRST-LINE MANAGERS' RESPONSES
TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	154.5221	17	9.0895	6.7009*
WITHIN GROUPS	2075.3936	1530	1.3565	
TOTAL	2229.9155	1547		

* significant at the .01 level

N = 86

TABLE 56

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
 JOB-ORIENTED MIDDLE MANAGERS' RESPONSES
 TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	285.7561	17	16.8092	13.2349*
WITHIN GROUPS	1943.1973	1530	1.2701	
TOTAL	2228.9534	1547		

* significant at the .01 level

N = 86

TABLE 57

SUMMARY RESULTS OF THE ANALYSIS OF VARIANCE: NON-
JOB-ORIENTED PROFESSIONAL EMPLOYEES' RESPONSES
TO THE DISSATISFYING SITUATION

SOURCE OF VARIANCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F RATIO
BETWEEN GROUPS	340.8713	17	20.0513	15.6585*
WITHIN GROUPS	2397.1646	1872	1.2805	
TOTAL	2738.0359	1889		

* significant at the .01 level

N = 105