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Application of Herzberg's Dual-Factor Theory to Faculty Members in a University

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APPLICATION OF HERZBERG'S DUAL-FACTOR THEORY TO FACULTY MEMBERS IN A UNIVERSITY

By

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CHAPTER I

THE PROBLEM

Introduction

There have been some studies in business and industry claiming that job satisfaction and job dissatisfaction are influenced by two different sets of factors. In the present study, of faculty members teaching at a large Midwestern university, 23 factors were indicated on a questionnaire as possible sources of feelings of job satisfaction or feelings of job dissatisfaction. By using Herzberg's system of classification, these 23 factors were divided into two groups of factors: 10 factors were classified as motivator factors and 13 factors were classified as hygiene factors. Herzberg hypothesized that motivator factors, when present, are associated with feelings of job satisfaction and hygiene factors, when absent, are associated with feelings of job dissatisfaction. The objective of the present study is to determine if Herzberg's dual-factor theory can be applied to university faculty members. Do the 10 listed motivator factors, when present, act as sources of satisfaction? Do the 13 listed hygiene factors, when absent, act as sources of dissatisfaction? What is the relationship between the 26 factors as sources of satisfaction and as sources of dissatisfaction? What is the relationship between a factor as a source of satisfaction and as a source of dissatisfaction?

In this chapter some of the basic assumptions underlying job satisfaction and job dissatisfaction are reviewed. One specific

theory is extensively discussed and resulting statements are developed which apply to a university setting.

Need

Job satisfaction may be defined several different ways. Argyris (1957) discusses the congruence between what is desired by the individual and what the situation provides for the individual. Therefore, job satisfaction or job dissatisfaction may be defined as the amount of harmony or the amount of conflict between what the individual wants and what the organization wants of the individual. The greater the congruence between wants of the individual and wants of the organization, the greater the degree of job satisfaction. Conversely, the greater the conflict between these two wants, the greater the degree of job dissatisfaction.

A number of studies have been made to discover the sources of job satisfaction and job dissatisfaction. Individuals making such investigations usually make one of two basic assumptions: one assumption is that job satisfaction and job dissatisfaction are opposites, while the second assumption is that job satisfaction and job dissatisfaction are not opposites.

Job satisfaction and job dissatisfaction may be assumed to be opposites. Therefore, if the investigator can measure the degree of job satisfaction, he assumes that he can simultaneously measure its converse, the degree of job dissatisfaction. The investigator then concludes that if job dissatisfaction is caused by the absence or weakness of a particular factor, decreased job

dissatisfaction or increased job satisfaction will be obtained by adding or improving that factor causing dissatisfaction (Morse, 1953). This model, sometimes referred to as bi-polar model of job satisfaction-job dissatisfaction, also assumes that the relative importance of any given factor is in direct proportion to the degree of satisfaction or dissatisfaction (Lindsay, 1965).

The majority of the investigators studying job satisfaction of college or university faculty members make assumptions based on the bi-polar model. Consequently, when measuring instruments are developed, faculty members are asked to indicate their degree of satisfaction with certain factors, and to attach some degree of importance to each of the factors (University of Michigan, 1966).

A second approach assumes that job satisfaction and job dissatisfaction result from two separate, independent sets of factors and that job satisfaction and job dissatisfaction are not opposite ends of the same continuum, but rather exist on two different continua (Herzberg, Mausner, and Snyderman, 1959). The dual-factor theory suggests that the removal of an element causing job dissatisfaction will not necessarily assure job satisfaction and if the degree of job satisfaction is measured, the converse, or job dissatisfaction, is not simultaneously measured.

Why should job satisfaction be of concern to the educational leader? What are the effects of job satisfaction or job dissatisfaction on the employees' attitude or behavior? The employee in industry may show his dissatisfaction by striking or by a number of other less dramatic methods, nonetheless costly to the employer.

Although strikes by college or university faculty members are extremely uncommon, their dissatisfaction with the institution may be shown in a number of less dramatic ways. For instance, one study indicated that 57 percent of the total number of faculty vacancies occurring in the major universities under consideration were created by resignations (Caplow and McGee, 1958). Marshall (1964) found that in 349 departments of economics there was a 24 percent turnover during a three year period. Brown (1967) indicated that if a faculty member is dissatisfied with his present job, the probability of his changing collegiate employers during any given year of dissatisfaction is 14.1 percent. If a faculty member is satisfied with his job, he is much less likely to change collegiate employers. The probability of a satisfied faculty member changing collegiate employers during any given year is only 4.3 percent. Faculty members may also show their dissatisfaction by their unavailability to students (selective absenteeism) or by their failure to show interest in teaching or scholarship (performance).

Business and industrial management is very concerned with employee performance, absenteeism, and turnover. Is job satisfaction related to these three items? Research seems to indicate that there is a relationship. Performance is believed to be strongly related to job satisfaction. There is a positive relationship between job satisfaction and performance (Brayfield and Crockett, 1955). Other studies have shown that absenteeism is inversely related to job satisfaction (Patchen, 1960; White, 1960) and that

turnover is also inversely related to job satisfaction (Butler, 1961; Hulin, 1966).

If the college administrator is convinced that some degree of faculty job satisfaction is necessary to obtain desired outputs, he must have information which will enable him to choose the valid set of assumptions. The acceptance of the bi-polar model would suggest that the identification and subsequent addition of the missing factor would increase satisfaction. On the other hand, an administrator accepting the dual-factor model would assume the relationship between job satisfaction and job dissatisfaction to be more complex. Therefore, the addition of a missing factor causing job dissatisfaction would not necessarily assure increased job satisfaction.

Herzberg's dual-factor model is an extensive change from the traditional approach. While Herzberg assumes that certain factors act as satisfiers and other factors act as dissatisfiers, the traditional approach assumes that if a given factor acts as a satisfier when present, the lack of the same factor will act as a dissatisfier. Hence an investigation should be made to determine the efficacy of Herzberg's model in the university setting.

Purpose

Although there have been a number of studies dealing with job satisfaction and job dissatisfaction involving individuals from the business community, at the present time it appears that no studies of this type have dealt with college faculty members.

The present study partially duplicates in the educational world, some of the studies of job satisfaction and job dissatisfaction that have been made in business and industry. This study will seek to determine whether or not Herzberg's dual-factor theory of job satisfaction-job dissatisfaction is applicable to faculty members teaching at a university.

Theory

Herzberg and his associates made a study of approximately 200 engineers and accountants to discover the underlying factors contributing to job satisfaction and job dissatisfaction (Herzberg, Mausner, and Snyderman, 1959). They used the "critical incident" method. In this method, subjects were asked, in a semi-structured interview, to think of a time when they felt exceptionally good and exceptionally bad about their present job or any other job they formerly held.

Herzberg and his staff then analyzed the contents of the interview statements, dividing these statements into units about a single event or condition that led to a particular feeling, a single characterization of a feeling, or a description of a single effect. These statements, referred to as "thought units," were then sorted into three categories: first-level factors, second-level factors, and effects. Herzberg et al. (1959) defines the three categories as follows:

> 1. First-level factors: a description of the objective occurrences during the sequence of events, with especial emphasis on those identified by the respondent as being related to his attitudes. Example: a promotion.

> 2. Second-level factors: these categorize the reasons given by respondents for their feelings; they may be used as a basis for inferences about the drives or needs which are met or which fail to be met during the sequence of events. Example: a respondent's answer, "I felt good because the promotion meant I was being recognized."
>
> 3. Effects: the sole change was the introduction of probe questions searching into attitudinal effects beyond the behavioral level involved in productivity, turnover, or interpersonal relations. Specification of mental health effects was also attempted (p. 28).

Table 1.1 lists and defines the 16 first-level factors which Herzberg identified in his original study. Also included in this table is the percentage of time each factor was mentioned while the individual was describing satisfying and dissatisfying job situations. These 16 first-level factors were identified as: achievement, recognition, work itself, responsibility, advancement, salary, possibility of growth, interpersonal relations--subordinate, status, interpersonal relations--superior, interpersonal relations--peers, supervision--technical, company policy and administration, working conditions, personal life, and job security. An examination of Table 1.1 will reveal that the factors of achievement and recognition were most frequently indicated as sources of satisfaction, while factors of technical supervision, and company policy and administration were mentioned most frequently as sources of dissatisfaction.

The 11 second level factors were defined as: feelings of recognition, feelings of achievement, feelings of possible growth, feelings of responsibility, group feelings, feelings of interest, feelings of status, feelings of security, feelings of fairness, feelings of pride, and feelings about salary.

TABLE 1.1

DEFINITION OF FIRST-LEVEL FACTORS WITH PERCENTAGES OF TIMES FACTORS WERE MENTIONED WHILE DESCRIBING SATISFYING AND DISSATISFYING JOB SITUATIONS

FACTOR	Satis'	Dissatis'
1. Achievement This category involved success, successful completion of a job, solutions to problems, vindication, and seeing the results of one's work. This definition also included failure and the absence of achievement.	41*	7
2. Recognition This category included positive and negative recognition such as notice, and praise or blame from almost anyone: supervisor, some other individual in management, a client, a peer, a professional colleague, or the general public.	33*	18
3. Work itself This category was used when the respondent indicated either good or bad feelings about the job or tasks of the job.	26*	14
4. Responsibility This category included those events in which the individual indicated that satisfaction or dissatisfaction was derived from having gained or lost responsibility for his own or for other's work performance.	23*	6
5. Advancement This category included those instances where there was a change in the status or position of the individual through expected or unexpected promotion or demotion as well as failure to receive an expected promotion.	20*	11

* Differences of totals between Satisfied and Dissatisfied Situations significant at .01 level of confidence.

NOTE--Condensed from the book by Herzberg, F., Mauser, B., and Snyderman, B.B. The Motivation to Work. New York: John Wiley and Sons, Inc., 1959, Pages 44-49 and 72.

TABLE 1.1 (continued)

FACTOR	Satis'	Dissatis'
6. Salary This category included events involving expected or unexpected wage or salary increases and unfulfilled expectations of salary increases.	15	17
7. Possibility of Growth This category included the individual's changed situation due to increased or decreased possibilities for growth in his own skills or in his profession which could ultimately lead to higher organizational status.	6	8
8. Interpersonal relations with subordinates The respondent indicated satisfying or dissatisfying interpersonal relationship with subordinates.	6	3
9. Status This category was used when the individual mentioned some sign or appurtenance of status as being a factor in his satisfied or dissatisfied feelings about the job.	4	4
10. Interpersonal relations with superior The individual derives satisfaction or dissatisfaction as the result of practices by the supervisor.	4	15*
11. Interpersonal relations with peers The respondent derived satisfaction or dissatisfaction as the result of: liking or disliking the people he was working with, cooperation or lack of cooperation by individuals, the cohesion of work group, or the isolation of the respondent from the work group.	3	8*
12. Technical supervision Factors indicating competence or incompetence, fairness or unfairness of supervisor as well as the supervisor's willingness or unwillingness to delegate responsibility or to teach were classified in this category.	3	20*

* Differences of totals between Satisfied and Dissatisfied Situations significant at .01 level of confidence.

TABLE 1.1 (continued)

FACTOR	Satis'	Dissatis'
13. Company policy and administration This category included some sequence of events in which the company's practices or policies were a factor in the individual's feelings of satisfaction or dissatisfaction.	3	31*
14. Working conditions Physical conditions of work, facilities available for doing the work or the amount of work are included in this category.	1	11*
15. Personal life This category included those situations when satisfaction or dissatisfaction was caused because some aspect of the job affected the individual's personal life in such a way that the effect was a factor in the respondent's feelings about his job.	1	6*
16. Job security This category included the presence or absence of objective signs of job security such as tenure or company stability or instability.	1	1

* Differences of totals between Satisfied and Dissatisfied Situations significant at .01 level of confidence.

Herzberg called the effects of job attitudes as being performance effects, turnover, mental health effects, effects on inter-personal relationships, and attitudinal effects--changed attitudes toward himself, his colleagues, his profession, or his company.

In Herzberg's original study, first-level factors represent actual events during periods of job satisfaction and job dissatisfaction. Second-level factors describe why the respondent feels the way he did about the first-level factors. The effects attempt to discover how the respondent's attitude changed toward himself, toward others, and toward his job as the result of the absence or presence of various first-level factors.

There have been many subsequent studies replicating Herzberg's original work; however, the majority of these studies (including the present study) have omitted second-level factors and effects. The greatest portion of Herzberg's theory is derived from the analysis of first-level factors because they tend to be more objective and consequently they usually take precedent over second-level factors and effects. The second-level factors and effects tend to be much more subjective.

Schwartz (1963) claims that the exclusion of second-level factors and effects did not seriously affect the results of his study. However, one of the limitations of the present study is that it is not as complete as Herzberg's original study because only inferences can be made as to the events leading up to the time of job satisfaction and job dissatisfaction and only

inferences can be made as to the effects the listed 23 factors had on the respondent's attitude toward himself, toward others, and toward his job.

After studying the first-level factors, Herzberg concluded that five of the first-level factors (achievement, recognition, work itself, responsibility, and advancement), or matters associated with the self-actualization of the individual on the job, produced job satisfaction. He called these factors, "motivators." The eleven remaining first-level factors, or factors associated with describing the job situation, were called "hygienes." One set of factors, referred to as motivators, relates to what the individual does, while the other set of factors, referred to as hygienes, relates to the situation in which the individual does it.

Salary was classified as a hygiene factor. The decision to classify the factor of salary as a hygiene was made, according to Herzberg et al. (1959) because,

> . . . as such it meets two kinds of avoidance needs of the employee. First is the avoidance of the economic deprivation that is felt when actual income is insufficient Second, and generally of more significance in the times and for the kind of people covered by our study, is the need to avoid feelings of being treated unfairly (p. 116).

Herzberg discovered after reviewing the data in his original study and other studies, that motivator factors were mentioned with greater frequency when the individual was describing a satisfying job situation than when he was describing a dissatisfying job situation. On the other hand, hygiene factors were usually indicated more frequently when describing a dissatisfying job situation than when describing a satisfying job situation.

Herzberg (1965a) found:

> . . . that job satisfaction and job dissatisfaction represent two separate and distinct experiences, and not just the opposites of the same feeling. What determines job dissatisfaction are those aspects of work which essentially describe the environment or surroundings within which one performs his work tasks. Some of the more familiar environmental factors which are a common source of dissatisfaction include the company policies and administrative practices, supervision, interpersonal relationships with supervisors and peers and subordinates, working conditions, status, and in a complex way, salary. Conversely, the elements of work which contribute to job satisfaction are those which essentially describe the relationship of a worker to what he does, his task, or job content as opposed to job context (p. 369).

The dual-factor theory implies that certain factors, referred to as motivator factors, are essential to satisfaction. Other factors, referred to as hygiene factors, if present alone, will seldom produce job satisfaction; however, their absence produces job dissatisfaction. The presence of hygiene factors is necessary but not sufficient for job satisfaction. Motivator factors without hygiene factors may produce a certain degree of satisfaction; however, the opposite is not true.

One of the crucial concepts associated with the dual-factor theory is that job satisfaction and job dissatisfaction are not on opposite ends of the same continuum measuring job satisfaction, but rather represent two separate but related continua. Herzberg (1964) states:

> This hypothesis suggested that the factors involved in producing job satisfaction were separate and distinct from the factors that led to job dissatisfaction. Since separate factors needed to be considered depending on whether job satisfaction or job dissatisfaction was involved, it followed that these two feelings were not

> the obverse of each other. The opposite of job satisfaction would not be job dissatisfaction, but rather no job satisfaction; and similarly the opposite of job dissatisfaction is no job dissatisfaction--not job satisfaction (p.3).

This model calls for the development of a dual scale to measure job satisfaction and job dissatisfaction. Variations in the level of job satisfaction are due to the presence and/or level of motivators, while variations in the level of job dissatisfaction are due to the presence and/or level of hygienes. The dual-factor scale is very different from the type of scale used if the bi-polar model of satisfaction is accepted as a valid model. In the bi-polar model, job satisfaction and job dissatisfaction are thought of as opposites and related.

It is necessary to thoroughly understand the dual scale concept because it is frequently misinterpreted. One common error is to assume that overall job satisfaction is measured. Herzberg's theory does not make this assumption. Instead, the theory suggests that job attitudes must be measured two times, one time to determine those factors causing job dissatisfaction and another time to determine those factors causing job satisfaction.

General Statements

Assuming that Herzberg's dual-factor theory is valid, the following general statements may be formulated for university faculty members:

1. Job satisfaction and job dissatisfaction are the result of two separate and distinct sets of factors,

2. There are differences among factors which are sources of satisfaction, and there are differences among factors which are sources of dissatisfaction,
3. Motivator factors, as identified by Herzberg, will act as satisfiers, and
4. The absence of hygiene factors, as identified by Herzberg, will act as dissatisfiers.

If the traditional bi-polar model of job satisfaction were accepted, one would expect that any particular factor serving as a satisfier would also serve equally strong as a dissatisfier if absent.

Overview

In Chapter Two the work of several researchers involving the testing of Herzberg's theory in business and industry will be discussed and analyzed. In the third chapter the design of the study will be developed in detail. The sample will be described and the estimate of reliability for job satisfaction items and for job dissatisfaction items on the questionnaire will be determined for the sample. The instrument used in this study will be explained and the data will be analyzed. The fourth chapter will be devoted to an analysis and interpretation of the results found in this study. In Chapter Five the conclusions and the recommendations of this study will be presented.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This review of literature will deal primarily with those studies replicating or slightly modifying Herzberg's original research design. There will also be an examination of some of the studies critical of Herzberg's dual-factor theory. Morse (1953), Viteles (1953), and Zaleznik (1956) and Vroom (1964) review the literature relative to performance job satisfaction, and job attitudes.

Herzberg's Original Study with Engineers and Accountants

In Herzberg's (1959) original study involving 203 engineers and accountants, he concluded that motivator factors were primarily related to high feelings of job satisfaction, while hygiene factors were primarily related to low feelings of job dissatisfaction. These findings led to the formulation of the dual-factor theory.

Herzberg's Review of Subsequent Studies

Subsequent to his original study, Herzberg (1966) reviewed several studies where researchers used the critical-incident technique, or a technique very similar to it, to investigate the applicability of the dual-factor theory. These studies included populations of administrators, professional women, scientists, engineers, technicians, hourly employees, registered nurses,

skilled and unskilled service workers, and housekeeping workers. Herzberg claims that all of thes studies verify the existence of the dual-factor theory and that the predictions made from the theory were in error less than three percent of the time. Of the 51 significant differences reported for the six motivator factors, every one of the factors are mentioned a greater number of times while describing a satisfying job situation; of the 57 significant differences reported for the hygiene factors, 54 were mentioned a greater number of times while describing a dissatisfying job situation (Herzberg, 1966, p. 125).

Professional Women Holding Positions In the United States Government

Walt (1962) interviewed 50 women holding high-level professional positions in the United States Government. Almost 50 percent of these women held graduate degrees. Their average age was 45 years.

This study, which was an exact replication of Herzberg's work, verified the dual-factor theory inasmuch as achievement, recognition, responsibility, and work itself (motivator factors) were associated with satisfying job situations. On the other hand, company policy and administration, status, personal life, and working conditions (hygiene factors) were associated with dissatisfying job situations. There were, however, two reversals: the factors of interpersonal relations with subordinates and interpersonal relations with peers differed, being opposite of the predicted direction. Even though these two reversals existed, this study is still in basic agreement with the dual-factor theory.

Male Supervisors Employed at Utility Companies

Milton Schwartz (Schwartz, Jenusaitis & Stark, 1963) used a questionnaire instead of an interview to collect data. His population consisted of 111 male supervisors from the lower-middle management levels of 21 public utility companies from the Middle Atlantic and New England states. These managers were enrolled in a management training program at Rutgers University during the 1960-61 academic year. In addition to the questionnaire, Schwartz considered only first-level factors. He did not feel that these two changes in methodology seriously altered the results of his study for comparisons with Herzberg's original work.

The findings of this study essentially substantiate Herzberg's original work. The motivator factors of achievement, recognition, responsibility, and advancement, and the hygiene factors of technical supervision, company policy and administration, working conditions, and job security were predicted in the correct direction. There were, however, two exceptions which did not appear to support Herzberg's theory. The motivator factor "work itself" did not show statistical significance between the high and low job attitude sequence, while the hygiene factor "interpersonal relations with subordinates" was a significant factor in the high job attitude sequence--just the opposite of the predicted direction. Schwartz attributed this apparent reversal of direction to the unique character of the particular organization he was investigating.

Schwartz concluded that the subject's age, job classification,

education, or personality characteristics failed to cause significant differences when comparing the results of his study with Herzberg's study. This study basically supports Herzberg's dual-factor theory and also demonstrates that a questionnaire, instead of an interview, can be successfully used to obtain the desired data.

Managerial Pre-Retirees

A sample of 85 male pre-retiree managers between the ages of 60 and 65 were selected from 12 different companies in the Cleveland area to test Herzberg's dual-factor theory (Saleh, 1964). Saleh used the semi-structured interview technique to gather data: however, he permitted only one statement for each of the 16 factors (6 motivator, 10 hygiene) while describing a satisfying or dissatisfying job situation.

When pre-retirees recalled their job situation during their middle age (30-35), their responses agreed with the dual-factor theory. They indicated that motivator factors were related to job satisfaction while hygiene factors were related to job dissatisfaction. One exception was found between this and Herzberg's study. The motivator factor, "possibility of growth" did not appear to be a significant source of satisfaction.

When the pre-retirees were asked to think of the time prior to their retirement, a significant shift in their responses became apparent. They indicated that hygiene factors were sources of satisfaction during their pre-retirement years. This response is in direct conflict with Herzberg's dual-factor theory.

Although Saleh offers an explanation for this phenomenon, this finding suggests that age, especially during the pre-retirement period, may be a limitation to the applicability of the dual-factor theory. However, Saleh's study partially supports Herzberg's theory.

Engineers, Supervisors, Technicians and Female Assemblers

In 1961, Myers (1964) and his staff interviewed 283 employees at Texas Instruments, a company located in Dallas, Texas. This study included 230 male and 52 female employees in job categories of scientist, engineer, supervisor, technician, and female assembler.

Myers' study is somewhat different from Herzberg's work because Myers permitted only one factor for each sequence of events (Herzberg allowed any number of factors for each sequence of events) and two categories, interpersonal relations with subordinates and personal life, were omitted as first-level factors.

For scientists, achievement was related to a favorable sequence (a description of events that the individual felt good about) 50 percent of the time while recognition, advancement, responsibility, work itself, competence of supervision, and company policy and administration account for the remaining 50 percent of the favorable sequences.

The pattern for engineers was very similar to that of the scientists except that two categories (friendliness of supervisor,

and pay) were added because they were of higher priority for engineers than for scientists.

The patterns for supervisors, technicians, and female assemblers were significantly different from each other and from the scientists' and engineers'. However, achievement and recognition still accounted for over 50 percent of the favorable sequences in each job category.

Myers' study, even though slightly different from Herzberg's study, is in basic agreement with the latter's work. Certain factors which motivate employees (achievement, responsibility, growth, advancement, work itself, and earned recognition) are different from those factors which cause dissatisfaction.

Hospital Housekeeping Workers

Gendel (1965) replicated Herzberg's study with housekeeping workers at two Veteran Hospitals in Cleveland, Ohio. He found that the motivator factors of advancement, recognition, and responsibility were associated with feelings of job satisfaction while the hygiene factors of company policy and administration, technical supervision, interpersonal relations with peers, working conditions, and salary were associated with feelings of job dissatisfaction. This study is in basic agreement with Herzberg's dual-factor theory.

Finnish Supervisors

The same type of a questionnaire that Schwartz et al. (1963)

used in their study was used by Herzberg (1965b) while studying a group of Finnish supervisors. The results from this study again confirmed the dual-factor theory inasmuch as 81 percent of the negative incidents involved hygiene factors while 87 percent of the positive incidents involved motivator favtors.

Professional and Non-Professional Employees

Lindsay (1965) studied the responses of 270 subjects, equally divided into two categories of professional and non-professional employees, employed at a small aerospace research and development company located in Pennsylvania. The professional category contained individuals with a minimum of a bachelor's degree and consisted of engineers, mathematicians, and physicists. The non-professional category included all other individuals with less than bachelor's degrees and represented such positions as assembler, technician, engineering assistant, or electronic specialist.

In this study there were several methodological modifications from Herzberg's original work. The researcher presented his respondents with situations revolving around two factors (one hygiene and one motivator) and asked them to indicate the degree of job satisfaction or job dissatisfaction on a five point scale ranging from satisfaction to dissatisfaction. If the respondent had not experienced that particular situation, he was instructed to imagine how satisfied or dissatisfied he would feel in that situation. The one motivator factor chosen for this study was achievement, while the one hygiene factor was company policy

and administration. These two choices were made because various studies prior to this one had shown them to be most frequently indicated as sources of satisfaction and dissatisfaction.

The results of this study indicate that approximately 75 percent of the variance in job satisfaction is accounted for by these two factors: achievement, and company policy and administration. Those sequences involving the motivator factors of achievement were indicated three times as frequently as the sequences involving the hygiene factors of company policy and administration while the respondent was describing a satisfying job situation. The motivator factor accounted for 57 percent of the total variance, while the hygiene factor accounted for only 17 percent of the total variance. Furthermore, no significant differences were found between the responses given by the professional and non-professional employees.

These findings support Herzberg's theory that motivator factors are more important than hygiene factors when describing a satisfying job situation. It also appears from this study that the dual-factor theory is applicable to different populations within the professional and non-professional categories.

Lindsay (1965), however, contends that the results of his study lead to the conclusions that both motivator and hygiene factors are related to job satisfaction and that this conclusion is in conflict with Herzberg's theory, ". . . which suggests that motivators and hygienes do not interact in determining a worker's level of satisfaction [p. 54-55]." Lindsay may be in error in his

interpretation of Herzberg's theory because there is nothing in the dual-factor theory stating that both hygienes and motivators could not interact to influence job satisfaction.

Commercial Bank Employees

Over a thousand employees (576 females, 438 males) working at one of the three largest commercial banks in a western state completed a questionnaire for this study (Allen, 1967). In this study there was a slight modification of Herzberg's data collection technique. Respondents met in small groups and were asked to complete a questionnaire. In addition, the respondent was permitted to tell only one single incident for a time when he felt satisfied and another single incident for a time he felt dissatisfied. The author, however, did not feel that these modifications would seriously alter the results of his study.

The findings of Allen's (1967) study support Herzberg's dual-factor theory. Motivator factors were found to be associated with strong feelings of job satisfaction while hygiene factors were associated with strong feelings of job dissatisfaction. Motivator factors were associated with feelings of job satisfaction 63 percent of the time, while hygiene factors were associated with feelings of job dissatisfaction 77 percent of the time.

There were five motivator factors (achievement, recognition, advancement, possibility of growth and responsibility) that were statistically significant in the predicted direction. Only one

motivator factor (work itself) was not statistically significant; however, there was a difference in the predicted direction.

Conversely, hygiene factors (company policy and administration, technical supervision, interpersonal relations with supervisor, with peers and with subordinates, salary, personal life, and working conditions) were statistically significant at least at the .05 level of significance in the predicted direction. Only two hygiene factors (job security, and status) did not differ in the predicted low direction.

Allen's sample also contained male and female supervisors. An analysis of the data involving these individuals revealed that motivator factors were associated more with feelings of job satisfaction than with feelings of job dissatisfaction, while hygiene factors were associated more with feelings of job dissatisfaction than with feelings of job satisfaction. Consequently, these findings also agree with the dual-factor theory.

Friedlander's Studies

Recent studies by Friedlander (1963, 1964, 1965, 1966) have been cited as non-supportive of Herzberg's dual-factor theory (House and Wigdor, 1967). Yet, a closer review of these studies reveals that three of the four studies do support the theory while one study (Friendlander, 1966) was intended only to investigate the relationship between motivation to work and job performance and not to test the applicability of the dual-factor theory.

Engineering, Supervisory and Salaried Employees

Friedlander (1963) investigated the responses of over 9,000 engineers, supervisors and salaried employees of a large midwestern manufacturing company. He developed a 39-item questionnaire and factor analyzed 17 of the 39 items dealing with sources of satisfaction. Three meaningful factors emerged from this analysis. Factor I, which was labeled Social and Technical Environment, included only hygiene factors. Factor II, which was referred to as Intrinsic Self-Actualizing Work Aspects, included only motivator factors. The last factor, Factor III, was labeled Recognition through Advancement, and included four motivator factors and one hygiene factor. Friendlander called this hygiene factor, "I was expecting (or received) a merit increase [p. 248]." Friedlander's decision to classify this factor as a hygiene factor instead of a motivator factor may have been a mistake because a merit increase may also be considered a form of recognition. If this interpretation is accepted, then Factor III is not a mixed Factor containing both hygiene and motivator factors, but rather a Factor composed only of motivator factors. The acceptance of this argument would also mean that the study is in basic agreement with the dual-factor theory.

Miscellaneous Full-Time Employees Attending College Classes

Friendlander (1964) developed a questionnaire which was divided into two separate parts. One part of the questionnaire

was administered to approximately 80 subjects one week prior to the administration of the second part of the questionnaire. The first part of the questionnaire measured the importance of factors associated with job satisfaction while the second part of the questionnaire measured the importance of factors associated with job satisfaction. The section dealing with satisfaction was almost identical with Friedlander's (1963) previous study, and was developed with the cooperation of Frederick Herzberg.

Friedlander concluded from his study that for most job characteristics, satisfaction and dissatisfaction were not complementary functions (Friedlander, 1964, p. 389). Herzberg's dual-factor theory was again essentially substantiated by this study except for one part, the relative importance of motivator factors and hygiene factors in relation to job satisfaction and job dissatisfaction. Friendlander concluded that motivator factors were important to both satisfaction and dissatisfaction, while hygiene factors were relatively unimportant as satisfiers or dissatisfiers (Friedlander, 1964, p. 391). This findings is consistent with several other studies (Burke, 1966: Centers & Bugental, 1966; Ewen, Smith, Hulin & Locke, 1966; Graen, 1966a, 1966b).

Government Workers

In another study, Friedlander (1965) administered a 146-item questionnaire to 4,200 primary wage earners working for a branch of the government in an isolated community to determine the

relationship between environmental factors and job satisfaction or job dissatisfaction. He concluded that his findings supported the dual-factor theory because one set of factors contributed primarily toward dissatisfaction (Friedlander, 1965, p. 163) while another set of factors contributed primarily toward satisfaction (Friedlander, 1965, p. 164).

Criticisms of Herzberg's Dual-Factor Theory

Studies have not always supported the dual-factor theory. Vroom and Maier (1961) questioned Herzberg's conclusions that there are different factors acting as satisfiers and other factors acting as dissatisfiers. They state:

> There is a risk in inferring the actual causes of satisfaction and dissatisfaction from descriptions of events by individuals. It seems possible that obtained differences between events may reflect defensive processes at work within the individual. Individuals may be more likely to perceive the causes of satisfaction within the self and hence describe experiences involving their own achievement, recognition or advancement in their job. On the other hand, they may tend to attribute dissatisfaction not to personal inadequacies or deficiencies, but to factors in the work environment, i.e., obstacles presented by company policies and supervision (p. 433).

Other writers have criticized Herzberg's conclusions by indicating essentially the same thing as Vroom. Sources of satisfaction may be the result of an individual's tendency to ascribe the reasons for satisfaction to one's own achievement in the job, while attributing dissatisfaction to forces outside the individual, such as company policies or supervision, instead of attributing them to personal failure.

Some researchers have criticized the dual-factor theory

because they were unable to obtain similar results when replicating Herzberg's work. However, discrepancies between Herzberg's and subsequent studies may be the result of misinterpretations of the motivator-hygiene theory. For instance, the study of Ewen, Smith, Hulin and Locke (1966) is often cited as a clear refutation of the motivator-hygiene theory (Wernimont, 1966; Malinovsky and Barry, 1965; Burke, 1966), yet Ewen et al. (1966) made two errors in interpretation. First, they predicted that hygienes would not contribute to overall job satisfaction. The dual-factor theory does not make this assumption, but rather states that motivators and hygienes are independent and that they cannot be linked on the same scale. There is nothing in the dual-factor theory stating that overall job satisfaction could not be influenced by both motivators and hygienes.

The second error was made when they (Ewen et al., 1966) assumed that an individual could feel neutral. Ewen reasoned that an individual felt neutral toward his job when he was neither satisfied nor dissatisfied. The dual-factor theory assumes that a "neutral" individual is composed of some amount of satisfaction (motivators) and some amount of dissatisfaction (hygienes). Herzberg et al. (1959) states that:

> Theoretically, given an individual operating from a neutral point, with neither positive nor negative attitudes toward his job, satisfaction of the factors, which we may call the "satisfiers," would increase his job satisfaction beyond the neutral point. The absence of satisfaction to these factors would merely drop him back to this neutral level but would not turn him into a dissatisfied employee. Counterwise, these should be a group of factors that would act as "dissatisfiers."

> Existence of these negative factors would lead to an unhappy employee. The satisfying of these factors, however, would not create a happy employee (p. 111).

Summary

Results of studies involving the dual-factor theory have not always agreed with Herzberg's findings. In those studies where Herzberg's methodology was used exclusively, or slightly modified, the results of the study tended to agree with Herzberg's conclusions that certain factors (motivators) are primarily related to high feelings of job satisfaction and that certain other factors (hygienes) are primarily related to low feelings of job dissatisfaction. In those studies where extensive modifications in methodology were made, the results of those studies tend to disagree with Herzberg's conclusions. This pheonomenon has caused at least one author to argue that Herzberg's critical-incident method of data collection is methodologically bound (Vroom, 1964). He argues that only the story-telling, critical-incident method can be used to test Herzberg's theory. Vroom argues that other research methods are necessary to adequately test and to substantiate the dual-factor theory.

There seems to be clear evidence that motivator factors become more important to employees at higher occupational levels (the determination of occupation level was based on socioeconomic status criteria). Herzberg observed this pheonomenon in his early studies (Herzberg et al., 1957) and it has been substantiated in several later studies by other researchers (Centers & Bugental, 1966).

The present study will seek to investigate the applicability of the dual-factor theory to a population that is at a very high occupational level and that has not yet been tested. Herzberg's methodology of data collection will be modified in this study; however, it will be similar to that used by Friedlander (1964).

CHAPTER III

DESIGN OF THE STUDY

Introduction

In this chapter the design of the study is described. This chapter includes a description of the sample, development of the instrument, reliability estimates, testable hypothesis and procedure.

Sample

The respondents for this study included 214 full-time faculty members who were teaching at a large Midwestern university during the 1969-70 academic year. The University has an enrollment of approximately 20,000 students of which approximately 9,000 live on campus. The University is located in a city of approximately 100,000 people, which covers approximately 25 square miles. Faculty members participating in this study were assigned to a department on a full-time basis, holding academic rank, and teaching the equivalent of nine semester hours during the 1969 Fall Semester. This sample did not include any individuals with administrative responsibilities.

For the purpose of this study, academic rank implies the classification system usually used at colleges and universities for faculty members where the instructor is the least experienced teacher and the full professor is the most experienced teacher. The four levels of academic rank are instructor, assistant

professor, associate professor, and full professor.

From an alphabetical list of 805 full-time teaching faculty members, 309 names of individuals were selected by the following methods to participate in this study. Of the 805 full-time teaching faculty members, 132 (approximately 16 percent) of the faculty are instructors; 244 (approximately 30 percent) of the faculty are assistant professors; 261 (approximately 32 percent) of the faculty are associate professors; and 168 (approximately 21 percent) of the faculty are professors. The subjects chosen to participate in this study were selected in approximately the same proportion as the number of individuals in each academic rank. Hence from the alphabetical list of faculty names, the first 60 instructors, 90 assistant professors, 96 associate professors, and 63 full professors were selected to receive a letter requesting their participation in a study on job satisfaction and job dissatisfaction of college faculty members (Appendix I contains a sample copy of this letter). If both husband and wife were teaching at the university, only the husband was selected to participate in the study.

Five days after the first letter was mailed, a second letter and the questionnaire were sent to the same individuals asking them to complete the questionnaire and to return it to the Office of Institutional Research by inter-office mail (Appendix II contains a copy of the second letter and Appendix III contains a copy of the questionnaire).

Of the 309 questionnaires sent out, 231 (74.7 percent) of the

faculty members responded. There were 17 of the 231 returned questionnaires omitted from this study because they were incomplete or improperly marked in one or both sections involving factors affecting job satisfaction or job dissatisfaction. Hence, of the 309 questionnaires sent to faculty members, 214 (69.2 percent) of the questionnaires were usable.

Table 3.1 compares the number of faculty members by school that returned usable questionnaires with the number of faculty members actually in that school. Table 3.2 compares the number of faculty members by academic rank that returned usable questionnaires with the number of faculty members actually holding comparable academic rank. Table 3.3 lists the number of faculty members that returned usable questionnaires by school, department and rank.

A university is often divided into sub-units referred to as "schools." Schools are again divided into sub-units referred to as "departments."

Of the 214 usable questionnaires: 119 (26.4 percent) of the faculty in the School of Liberal Arts responded; 39 (24.4 percent) of the faculty in the School of Education responded; 30 (31.6 percent) of the faculty in the School of Applied Arts responded; 7 (12.7 percent) of the faculty in the School of Business responded; 6 (13.3 percent) of the faculty in the School of General Studies responded; while 13 faculty members failed to indicate their School (Table 3.1).

Of the 214 faculty members returning usable questionnaires;

22 (16.7 percent) of the faculty members holding an academic rank of instructor responded; 58 (23.8 percent) of the faculty members holding an academic rank of assistant professor responded; 76 (29.1 percent) of the faculty members holding an academic rank of associate professor responded; and 50 (29.8 percent) of the faculty members holding an academic rank of professor responded. There were eight faculty members failing to indicate their academic rank (Table 3.2).

In the School of Liberal Arts, 20 departments, or 90.9 percent, of the departments were represented in this study; 7 departments, or 100 percent, of the departments in the School of Education were represented; 6 departments, or 66.6 percent, of the departments in the School of Applied Arts were represented; and 3 departments, or 60.6 percent, of the departments in the School of Business were represented in this study. The School of General Studies contains only one department and it was represented in this study (Table 3.3).

Approximately 17 percent of the faculty members with an academic rank of instructor returned a completed questionnaire. The low percentage of return may be explained by the fact that many of the faculty members holding the academic rank of instructor have limited teaching experience and are usually appointed on a temporary yearly basis.

The ages of the faculty members participating in this study ranged from 23 years to 69 years, with a mean age of 43.1 years (Table D-1). The total length of teaching experience

TABLE 3.1

NUMBER OF FACULTY MEMBERS RESPONDING TO QUESTIONNAIRE BY SCHOOLS

SCHOOL	*NUMBER OF FACULTY	NUMBER OF USABLE QUESTIONNAIRES	**PERCENTAGE
Liberal Arts	450	119	26.4
Education	160	39	24.4
Applied	95	30	31.6
Business	55	7	12.7
General Studies	45	6	13.3
Unclassified	--	13	--
Total	805	214	26.6

* Teaching the equivalent of nine semester hours during the 1969 Fall Semester; exclusive of all individuals with administrative responsibilities.

** Based on the number of faculty in the school.

TABLE 3.2

NUMBER OF FACULTY MEMBERS RESPONDING TO QUESTIONNAIRE BY ACADEMIC RANK

RANK	*NUMBER OF FACULTY	**NUMBER OF USABLE RESPONSES	***PERCENTAGE
Instructor	132	22	16.7
Assistant	244	58	23.8
Associate	261	76	29.1
Full	168	50	29.8
Unclassified	--	8	--
Total	805	214	26.6

* Teaching the equivalent of nine semester hours during the 1969 Fall Semester; exclusive of anyone with administrative responsibilities.

** Questionnaires were sent to 60 instructors, 90 assistant professors, 96 associate professors and 63 full professors.

*** Based on the number of faculty in each rank.

at the college or university level ranged from 1 year to 40 years with a mean length of teaching experience of 11.7 years and the mode of 5 years (Table D-2). The length of teaching experience at the present university ranged from 1 year to 31 years with a mean length of teaching at the present university of 8.6 years (Table D-3). The length of time the individual held his present academic rank ranged from 1 year to 27 years with the mean length of time at the present academic rank of 5.1 years and the mode of 1 year (Table D-4). Of the 214 respondents, 116, or 54.2 percent, had earned doctorate degrees; 5, or 2.3 percent, had specialist degrees; 84, or 39.2 percent, had master degrees and 2, or 0.9 percent, had bachelor degrees. There were 8 individuals that failed to respond to this item on the questionnaire (Table D-5).

There were 172 male respondents and 32 female respondents that indicated their sex in this study. Of the 214 respondents, there were 10 individuals that failed to answer this question.

No claim is made that the respondents in this study are representative of all faculty members teaching at the college or university level. However, it is believed that this group is representative of the faculty teaching at one large Midwestern university.

Instrument

The 46-item questionnaire used to obtain data for this study was a modification of Friedlander's (1964) instrument.

TABLE 3.3

FACULTY BY SCHOOL, DEPARTMENT AND RANK

SCHOOL AND DEPARTMENT	INST	ASST	ASSOC	FULL	TOTAL
SCHOOL OF LIBERAL ARTS					
Anthropology	-	1	2	-	3
Art	-	1	3	2	6
Biology	-	4	4	2	10
Chemistry	-	1	5	-	6
Economics	-	-	2	1	3
English	1	3	4	3	11
Geography	1	1	2	2	6
Geology	-	-	-	-	-
History	3	1	3	5	12
Languages	1	1	3	1	6
Linguistics	-	1	1	-	2
Mathematics	-	2	3	2	7
Music	2	3	8	3	16
Philosophy	-	1	1	-	2
Physics	-	1	2	1	4
Political Science	-	2	-	-	2
Psychology	-	1	2	4	7
Religion	-	-	-	-	-
Sociology	-	-	1	2	3
Speech	-	3	2	2	7
Speech Pathology	-	-	2	-	2
Social Work	-	-	2	1	3
SCHOOL OF EDUCATION					
Educational Leadership	-	-	1	1	2
Guidance & Personnel Services	-	-	1	1	2
Librarianship	-	2	-	1	3
Physical Education--Men	2	2	-	1	5
Physical Education--Women	1	1	2	-	4
Special Education	1	-	1	1	3
Teacher Education	1	10	4	5	20

TABLE 3.3 (continued)

FACULTY BY SCHOOL, DEPARTMENT AND RANK

SCHOOL AND DEPARTMENT	INST	ASST	ASSOC	FULL	TOTAL
SCHOOL OF APPLIED ARTS					
Agriculture	-	-	-	-	-
Distributive Education	-	-	2	-	2
Engineering & Technology	1	5	3	1	10
Home Economics	4	1	-	-	5
Industrial Education	-	2	4	2	8
Military Science	-	-	-	-	-
Occupational Therapy	-	-	-	-	-
Paper Technology	-	1	-	1	2
Transportation Technology	1	-	2	-	3
SCHOOL OF BUSINESS					
Accountancy	-	1	-	1	2
Business Education	-	1	-	1	2
General Business	-	-	-	3	3
Management	-	-	-	-	-
Marketing	-	-	-	-	-
SCHOOL OF GENERAL STUDIES					
General Studies	3	2	1	-	6
UNCLASSIFIED	-	3	3	-	14*
TOTAL	22	58	76	50	214

* Includes 8 respondents who failed to indicated the school they were assigned to, and their academic rank.

The factors used in the instrument are only first-level factors as defined by Herzberg and discussed in Chapter One of the present study. The questionnaire was divided into two sections of 23 items each. The first section asked the respondent to: "Think of a time when you felt exceptionally good about your job, either your present or any other college teaching job you have had. The following is a list of some factors which may have contributed to your good feelings at that time." The respondents were asked to indicate the degree of importance of each of the factors--10 motivator factors and 13 hygiene factors--as sources of satisfaction. For each item the respondent was instructed to check one of the following responses:

(1) This factor was not present,

(2) This factor was present but was not important,

(3) This factor was present and fairly important, or

(4) This factor was present and of major importance.

The second section asked the respondent to think of a time when he felt exceptionally dissatisfied about his job and to indicate the degree of importance of this factor when the factor was negative or completely missing.

There were seven faculty members involved in a pilot study using the questionnaire to determine if the factors were applicable to a university setting, if the instructions were clear, and if the four-point rating scale was adequate. Two very slight modifications were made in the wording of the questionnaire factors as a result of suggestions made by respondents completing

the pilot study. However, since no respondents indicated any difficulty with understanding the questionnaire, it was assumed that the instructions and the format of the instrument were adequate.

Table 3.4 lists each item or factor on the questionnaire used in this study and indicates whether the factor was classified as a motivator factor or as a hygiene factor according to Herzberg's classification system. An examination of Table 3.4 will reveal that only one factor was omitted on this questionnaire when compared with Herzberg's original factors (Table 1.1). The omitted factor is the factor of salary. Merit increase (factor 9&34) has been classified as a motivator factor instead of a hygiene factor as salary would normally be classified. This apparent change of classification was made because merit increase may be considered as a form of recognition. The factor of recognition is classified as a motivator by Herzberg.

The questionnaire used in this study is not to be considered as including all possible factors which may influence job satisfaction and job dissatisfaction. Inasmuch as the factors included have been shown to be important in the business world, this study will seek to determine if these same factors are important for individuals teaching at the college or university level.

TABLE 3.4

CLASSIFICATION OF FACTORS ON QUESTIONNAIRE

FACTOR NUMBER	FACTOR	TYPE*
1&26	Promotion (advancement)	Motivator
2&27	Challenging assignments (classes)	Motivator
3&28	Challenging assignments (committee or research projects)	Motivator
4&29	Recognition	Motivator
5&30	Relations with department head	Hygiene
6&31	Academic freedom (policy)	Hygiene
7&32	Relations with peers	Hygiene
8&33	Technical supervision	Hygiene
9&34	Merit increase (recognition)	Motivator
10&35	Achievement	Motivator
11&36	Working conditions	Hygiene
12&37	Responsibility	Motivator
13&38	Security	Hygiene
14&39	Growth	Motivator
15&40	Employee benefits	Hygiene
16&41	Working conditions (secretarial help)	Hygiene
17&42	Work itself	Motivator
18&43	Home life	Hygiene
19&44	Work group	Hygiene
20&45	Administrative policies	Hygiene
21&46	Use of best abilities	Motivator
22&47	Status (individual)	Hygiene
23&48	Status (departmental)	Hygiene

* As defined by Herzberg

Reliability Estimates of the Instrument

The reliability estimates for job satisfaction and job dissatisfaction for this sample were computed by the use of the Kuder-Richardson formula 20 (Guilford, 1965, p. 459). The estimate of reliability for the job satisfaction items was .83 while the estimate of reliability for the job dissatisfaction items was .84.

Testable Hypothesis

The first of four hypotheses was developed to determine whether or not job satisfaction and job dissatisfaction exist on two different continua and not opposite on the same scale. The second hypothesis was formulated to determine if there are differences between factors. The third and fourth hypotheses were developed to determine if hygiene factors and motivator factors act differently to produce job satisfaction and job dissatisfaction.

Hypothesis 1

If a motivator factor, as defined by Herzberg, contributes to a feeling of job satisfaction for a college faculty members, its converse, or lack of that motivator factor will not necessarily contribute to a feeling of job dissatisfaction. In addition, if the absence of a hygiene factor, as defined by Herzberg, contributes to a feeling of job dissatisfaction for a college

faculty member, its converse, or the addition of that hygiene factor, will not necessarily contribute to a feeling of job satisfaction.

The dual-factor theory suggests that job satisfaction and job dissatisfaction are the results of two separate and distinct sets of factors (motivator and hygiene) that act differently as sources of satisfaction and dissatisfaction. A difference between a satisfaction and dissatisfaction score for a particular factor would indicate that for that factor, satisfaction and dissatisfaction are not opposites. It follows that if the mean dissatisfaction score is greater than the mean satisfaction score, then that factor (or its absence), serves as a greater source of dissatisfaction. Conversely, if the mean satisfaction score is greater than the mean dissatisfaction score, that factor serves as a greater source of satisfaction.

The bi-polar model, on the other hand, suggests that job satisfaction and job dissatisfaction are opposites on the same scale. Therefore, if the bi-polar model is accepted, then one would expect to find no significant difference between the mean satisfaction and mean dissatisfaction scores for any given factor because any given factor which serves as a strong satisfier would serve equally strong as a dissatisfier if missing.

Hypothesis 2

The second hypothesis was developed to answer the following questions: Are there differences among factors which are sources

of satisfaction? Are there differences among factors which are sources of dissatisfaction? If there are differences in the importance of various satisfying factors and of dissatisfying factors, two additional questions may be formulated. First, what are the relationships among the various factors as sources of satisfaction? Second, what are the relationships among the various factors as sources of dissatisfaction? The following is the second hypothesis:

There are differences in the importance of various satisfying factors and of dissatisfying factors for college faculty members.

Herzberg found that certain factors were not only mentioned more frequently than other factors, but certain factors also served as greater sources of satisfaction or dissatisfaction. Individuals accepting the bi-polar model of job satisfaction and job dissatisfaction would also accept the second hypothesis because all factors are not thought of as being equally important sources of satisfaction or dissatisfaction.

Hypothesis 3

The third hypothesis is concerned with answering the following question: do motivator factors provide a source of job satisfaction? The third hypothesis is as follows:

When college faculty members recall a satisfying job experience, they will indicate the presence of a greater number of motivator factors, as defined by Herzberg, than when recalling a dissatisfying job experience.

The dual-factor theory suggests that the presence of motivator

factors contributes more to a feeling of job satisfaction than does the presence of hygiene factors. In Herzberg's original study, motivator factors were mentioned with greater frequency when the individual was describing a satisfying job situation than when a dissatisfying job situation was being described.

On the other hand, if the bi-polar model is accepted, an individual would expect college faculty members to indicate as many motivator factors when recalling a satisfying job experience as when recalling a dissatisfying job experience.

Hypothesis 4

The question that is raised by the fourth hypothesis is: do hygiene factors act as a source of dissatisfaction if they are missing? The following is the fourth hypothesis:

When college faculty members recall a dissatisfying job experience, they will indicate the absence of a greater number of hygiene factors, as defined by Herzberg, than when recalling a satisfying job experience.

The dual-factor theory suggests that the lack of hygiene factors is primarily responsible for feelings of job dissatisfaction. Herzberg found that missing or lacking hygiene factors were indicated more frequently when describing a dissatisfying job situation than when describing a satisfying job situation.

However, if the bi-polar model is accepted, the absence of hygiene factors would be indicated by college faculty members as frequently when recalling a dissatisfying job situation as when

recalling a satisfying job situation.

Procedure

The job satisfaction-job dissatisfaction questionnaire was distributed to 309 full-time college faculty members teaching at a large Midwestern university. The respondents were asked to complete the questionnaire and return it to the Office of Institutional Research in a sealed envelope. The instructions for completing this questionnaire were included in the questionnaire. There were 214 faculty members properly completing the questionnaire and returning it to the Office of Institutional Research.

The responses on each questionnaire were coded and punched on IBM cards for data analysis.

The means and standard deviations for each of the 23 factors as satisfiers were calculated and the means and standard deviations for each of the 23 factors as dissatisfiers were calculated. Student's t-ratio for correlated samples (Runyon and Haber, 1967, pp. 169-170) for a difference between the two means of job satisfaction and job dissatisfaction was computed for each pair of factors (factor numbers 1&26, 2&27, 3&28, 4&29, 5&30, 6&31, 7&32, 8&33, 9&34, 10&35, 11&36, 12&37, 13&38, 14&39, 15&40, 16&41, 17&42, 18&43, 19&44, 20&45, 21&46, 22&47, 23&48). The *t*-test was used to test the first hypothesis to determine if there is a difference for any given factor as a source of satisfaction, and as a source of dissatisfaction if the factor was lacking.

After calculated the t-ratio for each pair of factors,

the Pearson product-moment coefficient of correlation was used to determine the degree of relationship of a factor as a source of satisfaction and as a source of dissatisfaction. If there is a high degree of relationship between a factor as a source of satisfaction and as a source of dissatisfaction, an individual could accurately predict the importance of a factor to dissatisfaction if the factor is lacking, by knowing the importance of a factor to job satisfaction.

An analysis of variance, repeated measure design (Winer, 1962, p. 106), was used to test the second hypothesis to determine if there were any significant differences between factors as sources of satisfaction and factors as sources of dissatisfaction (factor numbers 1 through 23, and 26 through 48).

Student's t-ratio for correlated samples was used to test the third and fourth hypotheses. These two hypotheses are used to determine whether the presence of motivator factors (response two, three or four on the questionnaire) provides a source of satisfaction while the absence of hygiene factors (response two, three or four on the questionnaire) provides a source of dissatisfaction. The motivator factors identified and used in the third hypothesis are numbers 1&26, 2&27, 3&28, 4&29, 9&34, 10&35, 12&37, 14&39, 17&42, and 21&46. The hygiene factors identified and used in the fourth hypothesis are factor number 5&30, 6&31, 7&32, 8&33, 11&36, 13&38, 15&40, 16&41, 18&43, 19&44, 20&45, 22&47, and 23&48.

Summary

The sample used in this study included only teaching faculty members at one large Midwestern university. A questionnaire was developed to test the applicability of Herzberg's dual-factor theory that job satisfaction and job dissatisfaction exist on two different continua, and that the presence of motivator factors affect the satisfaction continuum and the presence of hygiene factors affect the dissatisfaction continuum.

Reliability estimates for job satisfaction and job dissatisfaction items were computed by using the Kuder-Richardson formula 20.

Four testable hypotheses were stated and the statistical models used to test each hypothesis was discussed.

CHAPTER IV

ANALYSIS OF RESULTS

Restatement of Hypothesis and Results

The results of the research are given in this chapter. Table 4.1 contains the means and standard deviations for each factor as a source of satisfaction and as a source of dissatisfaction. The t-ratio for correlated samples was used to test the difference between means for any given factor as a source of satisfaction and as a source of dissatisfaction. The value of r in Table 4.1 was calculated by use of the Pearson product-moment coefficient of correlation to determine the degree of relationship of a factor as a source of satisfaction and as a source of dissatisfaction. The value of r was converted into a corresponding Fisher's z coefficient to test the null hypothesis that the correlation coefficient is equal to zero.

The factor number, which is indicated in Table 4.1, corresponds with the item on the questionnaire. Factor numbers 1 through 23 represent items in a satisfying job situation while factor numbers 26 through 48 represent items in a dissatisfying job situation. For each item on the questionnaire (Appendix C), there were four possible responses where the numerical value of:

(1) implies that the factor was not present,

(2) implies that the factor was present but was not important,

(3) implies that the factor was present and fairly important, and

(4) implies that the factor was present and of major importance.

FACTOR 4.1

MEANS, STANDARD DEVIATIONS AND t-RATIOS BETWEEN
SOURCES OF JOB SATISFACTIONS AND SOURCES OF JOB DISSATISFACTION
N=214

FACTOR NUMBER	TYPE	FACTOR	Satisfaction M	Satisfaction SD	Dissatisfaction M	Dissatisfaction SD	DIFF.	t	r
17&42	M	Work itself	3.83	0.51	1.66	1.08	2.17	25.44*	-.121
6&32	H	Academic freedom (policy)	3.41	0.90	1.69	1.10	1.72	18.05	.042
2&27	M	Challenging assignments (classes)	3.40	0.81	1.91	1.14	1.49	16.12*	.074
7&32	H	Relations with peers	3.26	0.84	1.79	1.10	1.47	15.32	-.041
10&35	M	Achievement	3.71	0.66	2.34	1.30	1.37	13.66*	-.021
13&38	H	Security	2.90	1.02	1.74	1.12	1.16	11.80	.096
21&46	M	Use of best abilities	3.26	0.95	2.16	1.21	1.10	10.49*	.000
14&39	M	Growth	2.80	1.07	1.86	1.14	.94	9.80*	.201**
5&30	H	Relations with department head	3.06	1.03	2.16	1.31	.90	7.85	-.004
22&47	H	Status (individual)	2.63	1.08	1.74	1.07	.89	8.27	-.066
4&29	M	Recognition	2.74	1.20	1.91	1.13	.83	7.96*	.144**
3&28	M	Challenging assignments (committee or research projects)	2.57	1.16	1.87	1.08	.70	7.36*	.231**
12&37	M	Responsibility	2.40	1.10	1.74	1.07	.66	7.53*	.299**
11&36	H	Working conditions	2.50	1.12	1.97	1.17	.56	4.96	-.039
15&40	H	Employee benefits	1.93	1.00	1.39	0.78	.54	7.25	.263**
8&33	H	Technical supervision	2.67	1.12	2.23	1.30	.44	3.50	-.158**
9&34	M	Merit increase (recognition)	2.37	1.21	1.96	1.21	.41	4.16*	.285**
1&26	M	Promotion (advancement)	2.37	1.14	2.06	1.23	.31	3.39*	.393**
23&48	H	Status (departmental)	1.99	1.03	1.74	1.08	.25	2.21	-.200**
19&44	H	Work group	2.25	1.09	2.42	1.28	-.17	-1.37	-.138**
18&43	H	Home life	1.54	0.93	1.63	1.05	-.09	-1.02	.178**
16&41	H	Working conditions (secretarial help)	2.07	1.05	2.00	1.08	.07	0.70	-.074
20&45	H	Administrative policies	2.34	1.12	2.33	1.26	.01	0.09	.119

* Significant at .05 or beyond, one-tailed test.

** Significant at .05 or beyond, two-tailed test.

Each factor, or item, in the satisfying job situation section of the questionnaire was stated in positive terms. For instance, factor 1 was: I felt there was a good chance I'd be promoted. A response of 1 would imply that the faculty member did not feel that there was a good chance of promotion. On the other hand, a response of 4 would indicate that the faculty member felt there was a good chance for promotion and that the factor of promotion was of major importance.

Factors in the dissatisfying job situation section of the questionnaire were stated in negative terms. Item 26 (which is negative and opposite of item number 1) states: I felt there was a poor chance I'd be promoted. A response of 1 would imply that the faculty member felt there was a chance for promotion while a response of 4 would indicate that the faculty member felt there was a poor chance for promotion and that the lack of the factor of promotion was of major importance.

The means and standard deviations for the 23 factors in a satisfying job situation are listed under the heading of satisfaction; the means and standard deviation for the 23 factors in a dissatisfying job situation are listed under the dissatisfaction heading. These means and standard deviations were computed from the numerical value of the response indicated by the faculty member for each item on the questionnaire. For instance, the mean satisfaction score for factor 5 is 3.06 and is interpreted to mean that the faculty members participating in the present study, when feeling exceptionally good about their job

thought on the average that the working relationship they had with their department head was very good. In addition, this factor was fairly important to the faculty member. On the other hand, the mean dissatisfaction score for factor 26 is 2.06 and is interpreted to mean that the faculty members, when feeling exceptionally dissatisfied about their job, thought on the average that they had a poor chance for promotion. However, this factor was not an important source of dissatisfaction.

The difference between the satisfaction and dissatisfaction means for each factor was computed and is indicated under the heading of difference in Table 4.1. To more easily interpret the difference between factors as sources of satisfaction and sources of dissatisfaction, the factors in Table 4.1 are listed in descending order of the value of the difference between the mean satisfaction score and the mean dissatisfaction score. After the difference between the satisfaction and dissatisfaction means for each factor was determined, a corresponding t-value was obtained and is indicated in the t column. An asterisk in the t column indicates that there is a significant difference beyond the .05 level between the mean satisfaction and mean dissatisfaction score in the predicted direction.

Hypothesis 1

The data found in Table 4.1 was used to test Hypothesis 1.

Hypothesis: If a motivator factor, as defined by Herzberg,

contributes to a feeling of job satisfaction for a college faculty member, its converse, or lack of that motivator factor will not necessarily contribute to a feeling of job dissatisfaction. In addition, if the absence of a hygiene factor, as defined by Herzberg, contributes to a feeling of job dissatisfaction for a college faculty member, its converse, or the addition of that hygiene factor, will not necessarily contribute to a feeling of job satisfaction.

The critical region for the t-value, one-tailed test at the .05 level of significance with 213 degrees of freedom, for the 10 motivator factors (as identified by Herzberg) is t greater than 1.645. The t-ratios corresponding to all 10 motivator factors (factor numbers 17&42, 2&27, 10&35, 21&46, 14&39, 4&29, 3&28, 12&37, 9&34, and 1&26) are greater than 1.645. This means, therefore, that the presence of the factors of Work itself, Challenging assignments--classes, Achievement, Use of best abilities, Growth Recognition, Challenging assignments--committee or research projects, Responsibility, Merit increase--recognition, and Promotion--advancement are greater sources of satisfaction than the absence of them are sources of dissatisfaction.

According to Herzberg's theory, one would expect that the mean satisfaction score for each motivator factor would be greater than the mean dissatisfaction score. The results of the present study support the first part of Hypothesis 1 that, "If a motivator factor, as defined by Herzberg, contributes to a feeling of job

satisfaction for a college faculty member, its converse, or lack of that motivator factor, will not necessarily contribute to a feeling of job dissatisfaction."

For the 13 hygiene factors, as defined by Herzberg (factor numbers 5&30, 6&31, 7&32, 8&33, 11&36, 13&38, 15&40, 16&41, 18&43, 19&44, 20&45, 22&47, and 23&48), the critical region for the t-value, one-tailed test at the .05 level of significance with 213 degrees of freedom, is t less than -1.645. Consequently, the second part of Hypothesis 1 is rejected because all 13 t-values are greater than -1.645. It can be concluded that when any one of these 13 factors are absent they do not appear to be an important source of dissatisfaction; however, when they are present they appear to be a fairly important source of satisfaction.

If Herzberg's theory is applicable to the university setting, one would predict that the mean dissatisfaction score for each of the hygiene factors would be greater than the mean satisfaction score. The data in the present study does not support this portion of Herzberg's theory because the mean dissatisfaction scores for 11 of the 13 hygiene factors in the present study were less than the mean satisfaction scores. For the remaining 2 factors (Work group, and Home life) the mean dissatisfaction scores were greater than the mean satisfaction scores. However, these differences are very small and hence are not significant at the .05 level of significance. Consequently, the second part of Hypothesis 1, which states, "If the absence of a hygiene factor, as defined by Herzberg, contributes to a feeling of job dissatisfaction for a

college faculty member, its converse, or the addition of that hygiene factor, will not necessarily contribute to a feeling of job satisfaction," is rejected.

It should be noted, however, that for the 9 factors, Relations with department head, Academic freedom--policy, Relations with peers, Technical supervision, Working conditions, Security, Employee benefits, Status--individual, and Status-departmental, the mean satisfaction score is greater than the mean dissatisfaction score and these differences are statistically significant at the .05 level of significance. For faculty members participating in the present study, these 9 factors, as defined by Herzberg (factor numbers 5&30, 6&31, 7&32, 8&33, 11&36, 13&38, 15&40, 22&47, and 23&48) appear to have characteristics similar to motivator factors as defined by Herzberg. This finding suggests that Herzberg's definitions of hygiene factors may not be applicable to the university setting because, if these factors were called motivator factors, the difference between the mean satisfaction score and mean dissatisfaction score would normally be significant.

An examination of Table 4.1 indicates that 7 of the 23 factors have a difference between the mean satisfaction and mean dissatisfaction score that is greater than 1 on a four-point scale. These 7 factors are: Work itself, Academic freedom, Challenging assignments--classes, Relations with peers, Achievement, Security, and Use of best abilities. Of these 7 factors, 4 were called motivator factors and 3 were called hygiene factors by

using Herzberg's definitions.

Inasmuch as all seven factors have a greater mean satisfaction score than a mean dissatisfaction score, all of Herzberg's hypothesis is not supported because the mean dissatisfaction score should have been greater than the mean satisfaction score for the three hygiene factors (Academic freedom, Relations with peers, and Security). Nevertheless, all seven factors appear to be much greater sources of satisfaction when present, than sources of dissatisfaction when absent.

The high satisfaction mean score for these seven factors would tend to indicate that, on the average, these factors were present and fairly important, while a low dissatisfaction mean score for these same seven factors would tend to indicate, that on the average, these factors were still present, even though the faculty member was recalling a period of job dissatisfaction.

In the present study the factor of Academic freedom was classified as a hygiene factor on the basis that this factor was associated with describing the job situation rather than associated with the self actualization of the individual or the job, which Herzberg uses to describe a motivator factor. The data in the present study tend to suggest that Herzberg's definition of a hygiene factor in an industrial setting may not be applicable to the university setting.

The factor of Relations with peers is a fairly important hygiene factor in an industrial setting. Yet in the present study, on the average, this factor was an important satisfier

during periods of job satisfaction; however, it was a fairly unimportant dissatisfier during periods of job dissatisfaction.

In an industrial setting, the hygiene factor of Security does not appear to be an extremely important source of either job satisfaction or job dissatisfaction. However, in the present study, this factor, on the average, appears to be a fairly important satisfier during periods of job satisfaction and somewhat less important as a dissatisfier during periods of job dissatisfaction.

The three factors of Academic freedom, Good relations with peers, and Security were all classified as hygiene factors, yet in the present study these three factors tend to have characteristics that are associated with important motivator factors. This observation may be due to the fact that faculty members in the university setting, even during periods of job dissatisfaction, have never experienced the absence of these three factors. The faculty members appear to consider these factors as very important sources of satisfaction; however, because they may never have really experienced the absence of these factors, they have no basis upon which to conclude that these factors are extremely important sources of dissatisfaction when absent.

The results of the present study also appear to differ from Herzberg's findings that the factors of Achievement, and Recognition seem to be the greatest sources of satisfaction when present in a satisfying job situation. The factor of Work itself (I liked what I was doing) was the most important

factor contributing to job satisfaction for faculty members participating in the present study; yet, if this factor is absent, it is one of the least important factors when the faculty member recalled a dissatisfying job experience. If the traditional bi-polar model of job satisfaction is correct, then the factor of Work itself should have been as important to job dissatisfaction when absent as it is to job satisfaction when present. The data in Table 4.1 indicates that the factor of Work itself was more important in one situation than in another; consequently, some of the results of the present study do not support the bi-polar model of job satisfaction and job dissatisfaction.

Although there is a significant difference (.05 level of significance) between the mean satisfaction score and the mean dissatisfaction score for all of the motivator factors as defined by Herzberg, the factors of Promotion, and Merit increase have very small differences (.32 and .41 respectively on a four-point scale). In addition, these two factors appear to be among the least important factors contributing to job satisfaction. The factors of Promotion, and Merit increase may be more important to someone in an industrial setting than to a faculty member in a university. In addition, merit increase and promotion are many times dependent upon years of service in the university. Higher academic rank, or promotion, is usually dependent upon years of service, while salary increases are usually made on the basis of academic rank and years of service to the university. In the university setting it may be that the faculty member is not

overly concerned at the present time with the factors of Merit increase, and Promotion because these two factors tend to be somewhat automatic.

The factors of Promotion, and Merit increase may appear to be less important in the university community than in business or industry for another reason. An individual normally does not enter the teaching profession because of the high salary he will receive. In fact, even after an individual is in the teaching profession, salary does not appear to be a major source of dissatisfaction (Caplow, 1958, p. 99). Therefore, there must be rewards, other than salary, for the college faculty member. Data in the present study tend to indicate that the factor of Work itself is extremely important to job satisfaction. The faculty member may derive great personal reward from this factor. It may be that the higher the occupational level an individual attains, the factor of Work itself becomes increasingly important. Furthermore, as the factor of Work itself becomes more important, other factors such as Merit increase or Promotion may become proportionally less important.

The five factors of Status--departmental, Work group, Home life, Working conditions--secretarial help, and Administrative policies have very small differences between the mean satisfaction score and the mean dissatisfaction score. These results would tend to indicate that for these five factors, even thcugh they are not extremely important to either job satisfaction or job dissatisfaction, when present they tend to be as important

to job satisfaction as they are to job dissatisfaction when absent. A faculty member in the university setting frequently obtains status in the eyes of his colleagues on the basis of publications and/or contributions to the field of his specialization. On the other hand, an individual in the industrial setting may gain status in another way. One such way may be through his salary. Consequently, the factor of status may have different meanings and may be obtained in different ways for individuals in industry and in education. These differences may explain why, in the educational setting, the factor of Status was not extremely important to either job satisfaction or job dissatisfaction.

The data in Table 4.1 involving the small differences for the latter five hygiene factors tend to support the bi-polar model of job satisfaction and job dissatisfaction.

In summary, on the basis of the data found in the present study, the first part of Hypothesis 1 is accepted and the second part of Hypothesis 1 is rejected. Apparently, if a motivator factor, as defined by Herzberg, contributes to a feeling of job satisfaction for a college faculty member, its converse, or lack of that motivator factor will not necessarily contribute to a feeling of job dissatisfaction. On the other hand, the data in the present study does not support the second part of the first hypothesis which states that, if the absence of a hygiene factor, as defined by Herzberg, contributes to a feeling of job dissatisfaction for a college faculty member, its converse, or the addition of that hygiene factor, will not necessarily contribute

to a feeling of job satisfaction. Furthermore, 21 factors had mean satisfaction scores greater than the mean dissatisfaction scores. Only 2 factors, Home life, and Work group, had mean dissatisfaction scores greater than mean satisfaction scores and this difference was not significant at the .05 level of significance.

A question closely related to Hypothesis 1 is: what is the degree of relationship for any given factor as a source of satisfaction and as a source of dissatisfaction? If an individual knew the importance of a factor with regards to satisfaction, could a prediction be made as to the importance of this factor to dissatisfaction if the factor were lacking or missing? If the bi-polar model of job satisfaction and job dissatisfaction is accepted, one would expect that the correlation between a factor when present as a satisfier during a period of job satisfaction and between the same factor when absent as a dissatisfier during a period of job dissatisfaction would be greater than zero. On the other hand, the dual-factor theory suggests that there is little, if any, relationship between a factor, when present, as a satisfier during a period of job satisfaction and between the same factor, when absent, as a dissatisfier during a period of job dissatisfaction.

The Pearson product-moment coefficients are listed under r in the last column on Table 4.1. A double asterisk in this column indicates, using a .05 level of significance, that the hypothesis that the relationship between a factor as a source of satisfaction and as a source of dissatisfaction is greater than zero. The null hypothesis that the population correlation is zero was tested.

by first converting the value of r to a Fisher's z coefficient.

For 12 of the 23 factors, the null hypothesis that the correlation coefficient is zero was not rejected by using the .05 level of significance. In 8 of the 11 significant cases (factors: Promotion--advancement, Challenging assignments--committee or research projects, Recognition, Merit increase--recognition, Responsibility, Growth, Employee benefits, and Home life) the correlation is small but positive. The range of these correlations is in agreement with the range of correlations found by Friedlander (1964). In the remaining 3 cases of significant correlations (factors: Status--departmental, Technical supervision, and Work group) the correlation is in a negative direction. This means that for these 3 factors there is an inverse relationship. Hence for these 3 variables, on the average, as an individual's satisfaction score increases (decreases) his dissatisfaction score decreases (increases).

As was previously indicated, 11 of the 23 coefficients of correlation were significant. However, significance is dependent upon the number of observations, in this case, 214. Consequently, the larger the N, the smaller the r may be in order to find significance.

The rejection of the null hypothesis mentioned above does not say a great deal about the size of the relationship. For this reason, in cases where the null hypothesis was rejected, the coefficient of determination is estimated (r^2). In Table 4.2, the squared value of r is interpreted to mean the proportion or

TABLE 4.2

FACTORS OF SIGNIFICANT CORRELATIONS AND CORRESPONDING r^2 VALUES
N=214

FACTOR NUMBER	FACTOR	r	r^2
1-26	Promotion (advancement)	.393	.154
3-28	Challenging assignments (committee or research projects)	.231	.053
4-29	Recognition	.144	.021
8-33	Technical supervision	-.159	.052
9-34	Merit increase (recognition)	.285	.081
12-37	Responsibility	.299	.094
14-39	Growth	.201	.040
15-40	Employee benefits	.263	.069
18-43	Home life	.178	.032
19-44	Work group	-.138	.019
23-48	Status (departmental)	-.200	.040

percentage of the dissatisfaction variance accounted for by knowing the satisfaction score. Table 4.2 lists the 11 factors with significant correlations along with the corresponding value of r squared. The first factor, Promotion, has the largest r value (.393). Squaring the coefficient of correlation yields .1544, which means that only 15.44 percent of the variability of a dissatisfaction score is accounted for by knowing the satisfaction score for promotion. The remaining 10 factors have even smaller percentages of variance shared in common. Even though there is significance beyond the .05 level for these 11 factors, it would be extremely difficult for an individual to accurately predict that the addition of a missing or lacking factor causing dissatisfaction would necessarily result in satisfaction. This means that for all 23 factors indicated in the present study, an individual should not assume that the addition of a missing factor resulting in job dissatisfaction would necessarily lead to increased job satisfaction.

Hypothesis 2

On the basis of the summary data for the analysis of variance between sources of satisfaction (Table 4.3) and the analysis of variance between sources of dissatisfaction (Table 4.4) Hypothesis 2 was tested.

Hypothesis: There are differences in the importance of various satisfying factors and of dissatisfying factors for

college faculty members.

The F-ratio of 88.03 as indicated in Table 4.3 clearly shows that there are significant differences between factors as sources of satisfaction. On Table 4.4, an F-ratio of 13.75 clearly indicated that there are significant differences between factors as sources of dissatisfaction. On the basis of the data in Table 4.3 and 4.4, both parts of Hypothesis 2 are accepted. This means that, when the faculty members recall a satisfying job situation and a dissatisfying job situation, the various factors that were indicated on the questionnaire were not all equally important in contributing to job satisfaction or job dissatisfaction. Some factors were more important than others. Although both the bi-polar model and the dual-factor model of job satisfaction and job dissatisfaction would predict differences of importance among the various factors, many of Herzberg's conclusions are based upon the relationship among the various factors as sources of satisfaction and sources of dissatisfaction.

Hence, several questions closely related to Hypothesis 2 are: what are the relationships among the various factors as sources of satisfaction? What are the relationships among the various factors as sources of dissatisfaction? During periods of job satisfaction, which factors are most important and which factors are least important? Conversely, when the faculty members recall dissatisfying job experiences, which factors, when absent, are

TABLE 4.3

ANALYSIS OF VARIANCE BETWEEN
SOURCES OF SATISFACTION
N=214

SOURCE OF VARIANCE	SS	df	MS	F
Between respondents	1139.8680	213		
Between sources of satisfaction	1634.3550	22	74.2888	88.0265
Residual	3954.6890	4686	.8439	
Total	6728.9120	4921		

TABLE 4.4

ANALYSIS OF VARIANCE BETWEEN
SOURCES OF DISSATISFACTION
N=214

SOURCE OF VARIANCE	SS	df	MS	F
Between respondents	1429.6160	213		
Between sources of dissatisfaction	316.6260	22	14.3920	13.3752
Residual	5042.2440	4686	1.0760	
Total	6788.4860	4921		

most important contributors to job dissatisfaction and which factors contribute least to job dissatisfaction? Table 4.5 indicates the differences in importance among 23 factors as satisfiers. Table 4.6 indicates the differences in importance among 23 factors as dissatisfiers. In both tables, the first column, headed Number, corresponds with the item on the questionnaire. The factors are listed by their means in descending order of value.

In Table 4.5, the factors as sources of satisfaction are listed by their means in descending order of value. In Table 4.6, factors as sources of dissatisfaction are listed by their means in descending order of value. In both tables, the first column, headed Type, corresponds to the classification of the factors as defined by Herzberg, where "M" indicates that the factor is a motivator factor and "H" indicates that the factor is a hygiene factor. The second column, headed Number, corresponds with the item number on the questionnaire.

The data in Table 4.5 and 4.6 show that the two job factors of Achievement (Number 10&35), and Use of best abilities (Number 21&46) were important to both satisfaction and dissatisfaction. On the other hand, the two least important factors as sources of satisfaction and dissatisfaction were the factors of Employee benefits (Number 15&40) and Home life (Number 18&43).

The low satisfaction mean score for the factors of Employee benefits, and Home life would tend to indicate that on the average these factors were present but were not very important. On the other hand, the low dissatisfaction mean score for the factor of

TABLE 4.5

DIFFERENCES IN IMPORTANCE AMONG 23 FACTORS AS SATISFIERS
N=214

TYPE	NO.	FACTOR	MEAN
M	17	Work itself	3.83177
M	10	Achievement	3.71028
H	6	Academic freedom (policy)	3.40654
M	2	Challenging assignments (classes)	3.39719
M	21	Use of best abilities	3.26168
H	7	Relations with peers	3.26168
H	5	Relations with department head	3.06074
H	13	Security	2.90186
M	14	Growth	2.79906
M	4	Recognition	2.73831
H	8	Technical supervision	2.67289
H	22	Status (individual)	2.63084
M	3	Challenging assignments (committee or research projects)	2.57009
H	11	Working conditions	2.50467
M	12	Responsibility	2.40186
M	9	Merit increase (recognition)	2.37383
M	1	Promotion (advancement)	2.36915
H	20	Administrative policies	2.34112
H	19	Work group	2.24766
H	16	Working conditions (secretarial help)	2.07476
H	23	Status (departmental)	1.99065
H	15	Employee benefits	1.92990
H	18	Home life	1.53738

TABLE 4.6

DIFFERENCES IN IMPORTANCE AMONG 23 FACTORS AS DISSATISFIERS
N=214

TYPE	NO.	FACTOR	MEAN
H	44	Work group	2.41588
M	35	Achievement	2.34112
H	45	Administrative policies	2.33177
H	33	Technical supervision	2.23364
H	30	Relations with department head	2.16355
M	46	Use of best abilities	2.15887
M	26	Promotion (advancement)	2.06542
H	41	Working conditions (secretarial help)	2.00000
M	34	Merit increase (recognition)	1.96261
H	36	Working conditions	1.94392
M	27	Challenging assignments (classes)	1.91121
M	29	Recognition	1.90654
M	28	Challenging assignments (committee or research projects	1.86915
M	39	Growth	1.86448
H	32	Relations with peers	1.78504
H	47	Status (individual)	1.74299
H	48	Status (departmental)	1.74299
H	38	Security	1.73831
M	37	Responsibility	1.73831
H	31	Academic freedom (policy)	1.69158
M	42	Work itself	1.65887
H	43	Home life	1.62616
H	40	Employee benefits	1.38785

Employee benefits would tend to indicate that on the average during periods of job dissatisfaction this factor was still present; however, the factor of Home life, on the average was not present and not important.

The data in Table 4.5 and 4.6 tend to support Herzberg's theory. The data in Table 4.5 show that, except for the factor of Academic freedom--policy (Number 6), four of the first five most important factors as sources of satisfaction are motivator factors, as defined by Herzberg. These factors are Work itself, Achievement, Challenging assignments--classes, and Use of best abilities. The last six and least important factors as sources of satisfaction are hygiene factors, as defined by Herzberg. These factors are Home life, Employee benefits, Status--departmental, Working conditions--secretarial help, Work group, and Administrative policies. Conversely, in Table 4.6, except for the factor of Achievement (Number 35), four of the first five most important factors as sources of dissatisfaction are hygiene factors as defined by Herzberg (Work group, Administrative policies, Technical supervision, and Relations with department head). However, some of the least important factors as sources of dissatisfaction are also hygiene factors.

The ranking of the factors as sources of satisfaction and as sources of dissatisfaction are dissimilar except for the first two and last two factors. This means that there is relatively little relationship between a factor as a satisfier and as a dissatisfier.

When faculty members were asked to recall a satisfying job experience, they indicated which factors were most important at the time of the incident. As can be seen from the data in Table 4.5, the factor of Work itself appears to be the most important factor, while Home life appears to be the least important factor when recalling a satisfying job experience. Another way to interpret the data in Table 4.5 is that, on the average, faculty members participating in the present study thought that the factors of Work itself, Achievement, Academic freedom--policy, Challenging assignments--classes, Use of best abilities, Relations with peers, and Relations with department head were fairly important during times when they felt exceptionally good about their job. This means that the faculty member, on the average liked what he was doing, had a real feeling of achievement in his work, had freedom to speak, teach, conduct research, and to write in the field of his competence, thought his classes were particularly challenging, felt that the job required the use of his best abilities, felt that the working relationship he had with his colleagues was very good, and felt that the working relationship he had with his department head was very good.

On the other hand, the factors of Security, Growth, Recognition, Technical supervision, Status--individual, Challenging assignments--committee or research projects, Working conditions, Responsibility, Merit increase--recognition, Promotion--advancement, Administrative policies, Work group, and Working conditions--secretarial help were present but not very important.

The factors of Status--departmental, Employee benefits and Home life, on the average, were not present, and hence unimportant. This means that the faculty members felt that they were not working in a department or university of high prestige, that the university had not improved an employee benefit program that was of importance to the faculty member, and that the faculty member's job situation had not changed in such a way as to improve his home life.

Herzberg reviewed many studies that replicated his original work and found that even though the factor of Work itself was frequently indicated during periods of job satisfaction, this factor was also frequently listed during periods of job dissatisfaction. Consequently, the factor of Work itself appears to be less important because of the small differences between the factor during a period of job satisfaction and during a period of job dissatisfaction. Herzberg felt these small differences resulted because many individuals participating in the studies had indicated a lack of interest in their jobs (Herzberg, 1966, p. 127). One very important difference between individuals working in business and those working in the university may be that, on the average, faculty members not only have a much greater interest in their job, but also feel that their jobs have greater meaning to them than do individuals in other occupations. The fact that in the present study the factor of Work itself was indicated much less frequently as an important factor during periods of job dissatisfaction would appear to substantiate

Herzberg's hypothesis involving the factor of Work itself.

The factor of Achievement is indicated as an important factor in many other studies, as well as in the present study. This factor may be important to job satisfaction because it provided an opportunity for the individual to grow psychologically. However, the factor of Achievement is also indicated as an important source of dissatisfaction when absent. This observation is contrary to the results found in many other studies. It may be that faculty members feel a lack of achievement in their work if their students attending classes fail to achieve at the faculty member's expectation level. Consequently, if the student fails to achieve, the faculty member has little feeling of achievement in the work he is doing. Future studies should seek to determine if a faculty member's feeling of achievement is related to the achievement of the students in his classes.

When faculty members were asked to recall a time when they felt exceptionally dissatisfied about their job, they indicated on the average a different ranking of the 23 factors. One would normally expect that if the factor of Work itself was present and fairly important during a period when the faculty member felt exceptionally satisfied about his job, that if this factor were absent, the faculty member would feel exceptionally dissatisfied. The data in Table 4.6 does not support the bi-polar model. In fact, the absence of the factor of Work itself is one of the least important factors contributing to job dissatisfaction.

Faculty members participating in the present study felt that,

on the average, during times of job dissatisfaction, they were working in a department that operated with discord and inefficiency, they had little feeling of achievement in the work they were doing, that the administrative policies that affected their department did not take into consideration their personal feelings, that they were working under a department head who really did not know his job, that the working relationship they had with their department head was very poor, that the job did not require the use of their best abilities, they felt there was a poor chance of promotion, and that good secretarial assistance was seldom available to them. Although these factors were present during periods of job dissatisfaction, on the average, faculty members did not feel these factors were important sources of dissatisfaction. On the other hand, even during periods of extreme job dissatisfaction, on the average, a faculty member participating in the present study expected or received a merit salary increase, had good working conditions, thought his classes were challenging, did a project that received recognition as being a good piece of work, participated in some challenging committee or research projects, was getting experiences on the job that were helping him to advance professionally, had good working relationships with his colleagues, had prestige in his department as well as working in a department or university with prestige, felt secure in his job, was given increased responsibility, had freedom to speak, teach, conduct research, and write in the field of his competence, liked what he was doing, his job situation changed in such a way as to improve his home life

and the university introduced an employee benefit program that was of importance to him. This means that even when the faculty member was dissatisfied with his job, on the average, he still felt that the majority of the 23 factors indicated on the questionnaire were present.

In conclusion, the data in Tables 4.3 and 4.4 support the second hypothesis that there are differences in the importance of various satisfying factors and of dissatisfying factors for college faculty members. In addition, the data in Tables 4.5 and 4.6 tend to further substantiate the second hypothesis.

Hypothesis 3

Table 4.7 contains the results of the number of motivator factors indicated in a satisfying job situation and indicated in a dissatisfying job situation. The questionnaire contained 10 motivator factors (factor numbers: 1&26, 2&27, 3&28, 4&29, 9&34, 10&35, 12&37, 14&39, 17&42, and 21&46). In a satisfying job situation the respondents indicated a mean number of 8.12 motivator factors, and indicated a mean number of 4.46 motivator factors while describing a dissatisfying job situation. On the basis of the data in Table 4.7 the third hypothesis was tested.

Hypothesis: When college faculty members recall a satisfying job experience, they will indicate the presence of a greater number of motivator factors, as defined by Herzberg, than when recalling a dissatisfying

TABLE 4.7

NUMBER OF INDICATED MOTIVATORS IN SATISFYING VERSUS DISSATISFYING JOB SITUATION
N=214

MOTIVATORS			
SATISFACTION		DISSATISFACTION	
M	SD	M	SD
8.1214	.132714	4.4579	.183755

t=16.1625*

*Significant at .05 or beyond, one-tailed test.

job experience.

Student's t-ratio for correlated samples was used to determine if there were any significant differences between the average number of motivator factors present in a satisfying job situation and in a dissatisfying job situation. The calculated t-ratio of 16.16 indicates that there is a significant difference beyond the .05 level between the mean number of motivator factors indicated in a satisfying job situation and in a dissatisfying job situation; consequently, Hypothesis 3 is accepted. This means that when the faculty member recalled a satisfying job situation, he indicated that motivator factors were present a greater number of times than when he was recalling a dissatisfying job situation.

Hypothesis 4

Table 4.8 contains the results of the number of hygiene factors that are indicated in a satisfying job situation and are indicated in a dissatisfying job situation. The questionnaire contained 13 hygiene factors (factor numbers 5&30, 6&31, 7&32, 8&33, 11&36, 13&38, 15&40, 16&41, 18&43, 19&44, 20&45, 22&47, and 23&48). The t-ratio was calculated by student's t-ratio for correlated samples.

On the basis of the data in Table 4.8, Hypothesis 4 was tested.

Hypothesis: When college faculty members recall a

TABLE 4.8

NUMBER OF INDICATED HYGIENES IN SATISFYING VERSUS DISSATISFYING JOB SITUATIONS
N=214

HYGIENES

SATISFACTION		DISSATISFACTION	
M	SD	M	SD
9.2336	.184778	5.4859	.225675

t=12.8489*

* The critical region for the t-value, one-tailed test at the .05 level of significance, is: t less than -1.645 hence non-significant.

dissatisfying job experience, they will indicate the absence of a greater number of hygiene factors, as defined by Herzberg, than when recalling a satisfying job experience.

Respondents indicated a mean of 9.23 hygiene factors while describing a satisfying job situation and indicated a mean of 5.49 hygiene factors while describing a dissatisfying job situation. A t-ratio of 12.85 was calculated from this data. Inasmuch as the critical region for the t-value, one-tailed test at the .05 level of significance, is t less than -1.645, Hypothesis 4 is rejected. This means that when the college faculty members that participated in the present study recalled a dissatisfying job experience, they did not indicate the absence of a greater number of hygiene factors, as defined by Herzberg, than when recalling a satisfying job experience. This finding is contrary to the predictions expected from the dual-factor model of job satisfaction and job dissatisfaction. However, it should be noted that a greater number of hygiene factors (as defined by Herzberg) are indicated by faculty members participating in the present study as being present in a satisfying job situation than present in a dissatisfying job situation.

Feelings of Job Satisfaction and Job Dissatisfaction

At the end of the section in the questionnaire dealing with factors affecting job satisfaction and factors affecting

job dissatisfaction, respondents were asked to indicate their overall feelings about their job at the time of the incident described, reflecting job satisfaction or job dissatisfaction. These two questions were included in the questionnaire to determine if there were differences in the respondent's feelings at the time of the incident of job satisfaction and job dissatisfaction. In both cases, individuals were asked to recall a time of extreme satisfaction and a time of extreme dissatisfaction. One would expect that during these periods of extreme satisfaction and extreme dissatisfaction, the intensity of feelings would be approximately equal. At the end of the questionnaire, respondents were also asked to indicate their overall feelings of satisfaction with their present position. This question was included to determine if Wernimont's (1966) observation, that satisfied individuals tend to outnumber dissatisfied individuals in business and industry, was also true for faculty members in the university.

The scale of satisfaction was a five-point scale from "no satisfaction" (1) to "highly satisfied" (5), while the scale of dissatisfaction was a five-point scale from "no dissatisfaction" (1) to "highly dissatisfied" (5). Of the 214 faculty members sampled, 213 members responded to these items on the questionnaire. A mean of 4.14 and a standard deviation of .66 was calculated for overall satisfied feelings and a mean of 3.39 and a standard deviation of 1.22 was calculated for overall dissatisfied feelings at the time of the critical incidents. Using Student's t-ratio for correlated samples, the resultant t value of 7.70 was

obtained, which is significant beyond the .05 level.

Respondents were asked to indicate on a 10-point scale their degree of satisfaction or dissatisfaction with their present job. The scale was divided into 10 intervals from "highly dissatisfied" (1) to "no satisfaction/no dissatisfaction" (5) to "highly satisfied" (10). There were 202 individuals responding to the question about their degree of satisfaction or dissatisfaction with their present job, and they indicated a mean response of 7.1 with a standard deviation of 2.37. Of the 17 unusable questionnaires that were returned, several faculty members did not complete the section dealing with job dissatisfaction, indicating instead that they could not think of a time when they were dissatisfied or unhappy with their job. Several other respondents returning usable questionnaires indicated that it was extremely difficult for them to recall a time when they were dissatisfied with their job.

From the data gathered it appears that faculty members in the present study tend to be more satisfied than dissatisfied with their present job, and tend to indicate a greater feeling of satisfaction during the critical incident of job satisfaction than a feeling of dissatisfaction during the critical incident of job dissatisfaction.

Summary and Conclusions

The summary, the data in the present study support the following hypotheses. For college faculty members:

1. Motivator factors, as identified by Herzberg, contribute to feelings of job satisfaction when present; however, the lack of motivator factors will not necessarily contribute to feelings of job dissatisfaction;
2. There are differences among factors which are sources of satisfaction, and there are differences among factors which are sources of dissatisfaction; and
3. While describing a satisfying job experience, the presence of motivator factors, which were identified by Herzberg, will be indicated a greater number of times than when describing a dissatisfying job experience.

The results of this study also indicate that, for faculty members in this study, it would be almost impossible for an individual to accurately predict that the addition of a missing or lacking factor causing dissatisfaction would necessarily result in satisfaction. There is relatively little relationship between a factor as a satisfier and as a dissatisfier. The majority of the factors in this study served as much greater sources of satisfaction than the absence of these same factors did to dissatisfaction. Consequently, the present study does not support the following hypotheses involving college faculty members:

1. The absence of a hygiene factor, as identified by

Herzberg, contributes to a feeling of job dissatisfaction; the addition of that hygiene factor will not necessarily contribute to a feeling of job satisfaction; and

2. While describing a dissatisfying job experience, the absence of hygiene factors, as identified by Herzberg, will be indicated a greater number of times than when describing a satisfying job experience.

Data in the present study also indicate that the faculty members responding to the questionnaire are satisfied with their present position, and tend to have stronger feelings of satisfaction during a period of job satisfaction than feelings of dissatisfaction during a period of job dissatisfaction.

There may be a number of explanations why the data in the present study do not entirely support Herzberg's hypothesis. Factors which are important to either job satisfaction or job satisfaction in industry may not be applicable to the university setting. The factors of Merit increase, and Promotion may be two such examples.

On the other hand, it may be that the faculty members participating in the present study never have experienced poor working conditions and their responses are somewhat biased. For the majority of the faculty members participating in the present study, the factors of Academic freedom, Good relations with peers, and Security may have always been present.

Consequently, these factors may not seem to be very important during times of job dissatisfaction because they still were very much in evidence during the critical incident.

The questionnaire used in this study may have been time sensitive, or the faculty members may have failed to understand the questionnaire and consequently responded erroneously. It is also possible that the faculty members participating in the study were afraid to be honest, or are easily satisfied.

The results of the present study tend to imply that Herzberg's definitions of motivator and hygiene factors may not be applicable to the university setting. However, data in the present study tned to support the hypothesis that job satisfaction and job dissatisfaction are not on opposite ends of the same continua measuring job satisfaction, but rather represent two separate but related continua.

From the data it can be concluded that for university faculty members participating in the present study:

1. One set of factors, which Herzberg classified as motivators, when present, appear to increase job satisfaction; however, if these same factors are missing, or lacking, they do not necessarily lead to job dissatisfaction;
2. There appears to be relatively little relationship between any factor when present as a satisfier and the same factor when missing or absent as a dissatisfier;

3. Herzberg's definition of hygiene factors does not appear to be applicable to the university setting;
4. Faculty members are more satisfied during periods of job satisfaction than dissatisfied during periods of job dissatisfaction;
5. Faculty members are more satisfied than dissatisfied with their present position; and
6. The factor of Work itself is the most important factor during periods of job satisfaction and may be related to occupational level.

CHAPTER V

SUMMARY

Summary

The purpose of this study was to test whether Herzberg's dual-factor theory could be applied to college faculty members teaching at a large Midwestern university. Over 200 faculty members returned the completed questionnaire which provided information for this study. The faculty members were asked in the questionnaire to recall a time when they felt exceptionally good about their college teaching position and then to indicate whether or not any of the 23 factors were present or absent during the period of job satisfaction. Respondents were also asked to indicate how much each factor contributed to their satisfied feeling. In the second part of the questionnaire the faculty members were asked to recall a time when they felt exceptionally dissatisfied about their college teaching position and to indicate whether or not the lack (or negative aspect) of the same 23 factors, is present or absent during this period of dissatisfaction. In addition, the respondents were asked to indicate how much each factor contributed to their feeling of dissatisfaction. Overall feelings about their job at the time of the critical incident, as well as feelings about their present position were requested. Demographic data included the respondent's department, rank, age, teaching experience, highest earned degree, and recent publications.

In general, only part of Herzberg's dual-factor theory was accepted. It was found for college faculty members participating in this study that if a motivator factor contributes to a feeling of job satisfaction, its absence will not necessarily result in a feeling of dissatisfaction. Motivator factors, as identified by Herzberg, were mentioned by faculty members in the present study a greater number of times while describing a satisfying job situation than while describing a dissatisfying job situation. On the other hand, in the present study there are many hygiene factors (as identified by Herzberg) which could be classified as motivator factors because they seem important to job satisfaction when present, but not very important to job dissatisfaction when absent. When factors are ranked in descending order of importance during a time of job satisfaction and a time of job dissatisfaction, the motivator factors of Achievement, Recognition, Work itself, Responsibility, and Advancement are associated with a feeling of job satisfaction. There are certain factors, not identified as hygiene factors in the present study, nevertheless identified as such by Herzberg (Work group, Administrative policies, Technical supervision, and Relations with department head--superior), that are indicated by faculty members participating in the present study as very important factors when missing. The absence of these hygiene factors are associated with strong feelings of job dissatisfaction.

The results of the present study tend to support Herzberg's hypothesis relative to the relationship of a motivator factor as a

satisfier when present, and the same factor as a dissatisfier if absent. For college faculty members in this study there appears to be relatively little relationship between a factor as a satisfier and as a dissatisfier. It would be extremely difficult to accurately predict that the addition of a missing or lacking factor causing dissatisfaction would necessarily result in satisfaction.

Herzberg et al. (1957) observed that motivator factors became more important to individuals at higher occupational levels. In the present study, the majority of the factors, (both motivator and hygiene factors), appear to be very important to college faculty members--individuals employed at a very high occupational level. The data in the present study indicate that the majority of the listed 23 factors served as much greater sources of satisfaction than did the absence of these same factors to dissatisfaction.

If Herzberg's theory is correct, and the factors in the present study are correctly identified, when the college faculty members recall a satisfying job experience, the presence of motivator factors should be indicated as being most important and the presence of hygiene factors would tend to be less important. On the other hand, when the college faculty members recall a dissatisfying job experience, the absence of hygiene factors should be indicated as being most important and the absence of motivator factors would tend to be less important.

When factors in the present study are ranked in descending

order of importance as sources of satisfaction, four of the first five most important factors are motivator factors while the last six, and least important factors as sources of satisfaction, are hygiene factors by Herzberg's definitions. Conversely, when factors are ranked in descending order of importance as sources of dissatisfaction, four of the first five most important factors are hygiene factors by Herzberg's definition. Consequently for college faculty members participating in the present study, only a portion of Herzberg's hypothesis is supported by the data.

Certain portions of Herzberg's dual-factor theory are not substantiated in the present study. The absence of hygiene factors is not indicated by faculty members a greater proportion of the time when describing a dissatisfying job situation than when describing a satisfying job situation. In addition there are no data in the present study to support the hypothesis that if a missing hygiene factor contributes to a feeling of job dissatisfaction, the addition of this factor will necessarily contribute to a feeling of job satisfaction.

In summary, the data collected for the present study indicate that for participating faculty members: satisfaction and dissatisfaction are not on a bipolar continuum; there are differences between factors as sources of satisfaction and sources of dissatisfaction; if a factor contributes to a feeling of satisfaction, its absence will not necessarily contribute to a feeling of dissatisfaction; and some motivator factors and some hygiene factors, as identified by Herzberg, contribute to job satisfaction

as well as job dissatisfaction.

Discussion and Implications for Future Research

Herzberg's dual-factor theory suggests that job satisfaction and job dissatisfaction are not on opposite ends of the same continuum, but rather represent two distinct continua. Hence, according to Herzberg's theory, job satisfaction is influenced by motivator factors and job dissatisfaction is influenced by hygiene factors. The results of the present study do not unequivocally support the dual-factor scaling concept. How is satisfaction related to dissatisfaction or, how is dissatisfaction related to satisfaction? Will a highly satisfied or highly dissatisfied individual tend to screen out factors on the opposite continuum?

Wernimont (1966) notes that in many studies involving populations in business and industry, satisfied respondents exceed dissatisfied respondents. Furthermore, there is some evidence to indicate that present feelings influence responses of individuals recalling past feelings.

One of Wernimont's (1966) observations that satisfied individuals in business and industry tend to outnumber dissatisfied individuals is also evident in the present study. Faculty members responding to the questionnaire in this study not only indicate a greater feeling of satisfaction than a feeling of dissatisfaction with their present positions, but also indicate a stronger feeling of satisfaction than a feeling of dissatisfaction at the time of

the critical incidents. The results of the present study may be biased toward the satisfied respondent and may explain why the absence of hygiene factors as defined by Herzberg, were not indicated as sources of dissatisfaction.

Caplow (1958) found that status or prestige was important for faculty members. Not only was individual status important, but the prestige of the department or the institution seemed to influence the faculty's decision to remain in their present position or to change collegiate employers. The results of the present study tend to indicate that the factors of Individual status and Departmental status are not extremely important to either job satisfaction or job dissatisfaction. Although the presence of these two factors is a greater source of satisfaction than the absence of them is a source of dissatisfaction, they do not appear to be important sources of either satisfaction or dissatisfaction. These two factors appear approximately in the middle of both list of factors influencing job satisfaction and factors influencing job dissatisfaction when all 23 factors are ranked in order of importance.

After analyzing data on 1,175 questionnaires returned by faculty members employed at 386 institutions of higher education in the United States, Ralyeat (1968) determined that the factor of Academic freedom had the highest motivational influence of all 92 listed factors. He defined Academic freedom as, "The provision of autonomy in your classroom environment with any limitation understood and acceptable to

you [Balyeat, 1968, p. 13]."

The results of the present study tend to support Balyeat's finding that Academic freedom is an important factor because it was the third most important factor of 23 factors when ranked in descending order of importance involving factors affecting job satisfaction. In the present study, the factor of Academic freedom is defined as: I had freedom to speak, teach, conduct research and write in the field of my competence. It is interesting to note, however, that faculty members participating in the present study indicated that the factor of Academic freedom was number 20 of 23 factors when factors were ranked in descending order of importance involving factors affecting job dissatisfaction. The results of the present study tends to indicate that for faculty members participating in this study, the factor of Academic freedom is an important source of satisfaction when present; however, when the faculty member recalls a dissatisfying job experience, this factor is not mentioned as a factor causing dissatisfaction. Future studies should seek to explore this possible contradiction.

The low dissatisfaction mean scores for Academic freedom (factor number 31, mean 1.69), Work itself (factor number 42, mean 1.65) and Home life (factor number 43, mean 1.62) may be interpreted two ways. For some faculty members, these factors were missing and were not very important sources of dissatisfaction during periods of job dissatisfaction. For other faculty members these factors were present during periods of job dissatisfaction.

However, the results of the present study says nothing about the importance of this factor when it is present in a dissatisfying job situation.

The results of the present study tend to coincide with a portion of studies undertaken by Friedlander (1964), Wernimont (1966), and Dunnette (1967). The absence of many hygiene factors appears to be relatively unimportant as a source of dissatisfaction. If Herzberg's methodology had been completely replicated in the present study, would the absence of hygiene factors appear to be relatively unimportant as a source of dissatisfaction? As discussed in Chapter Two of the present study, in those studies where Herzberg's methodology was replicated, the results of the study tend to agree with Herzberg's conclusions that motivator factors are primarily related to job satisfaction and that the lack of hygiene factors is primarily related to feelings of job dissatisfaction. In those studies where Herzberg's methodology is altered, the results of the study tend not to agree with Herzberg's findings. Ewen (1964) suggests that results obtained from questionnaires may be different from those obtained by Herzberg's critical-incident technique because of the difficulty in verbalizing the negative aspect of a motivator factor or the positive aspect of a hygiene factor.

From a review of the literature it does not appear that there has been an attempt to determine why differing results are obtained when Herzberg's methodology is modified. Future studies involving Herzberg's dual-factor theory should seek to determine

why conflicting results are obtained when data collection techniques are modified. Future studies could compare the results of data obtained by Herzberg's critical-incident technique with another method of data collection on subjects from the same population. By making such a comparison, it may be possible to determine why differences have been reported in the past.

The respondents for the present study were full-time faculty members teaching at one large Midwestern university. In addition, they claimed high levels of job satisfaction with their current positions. Future research should select a population of highly dissatisfied faculty members and compare their responses with the responses of a population of highly satisfied faculty members.

Implications for Administrators

The results of the present study suggest that one set of factors when present tends to increase job satisfaction; however, if these factors are missing or lacking, they do not necessarily lead to job dissatisfaction. Evidence of other studies seems to indicate that increased job satisfaction leads to improved performance while job dissatisfaction leads to decreased performance, increased absenteeism, and higher turnover.

If the administrator is concerned with improving job satisfaction, he should be aware of the factors having the greatest potential for improvement of job satisfaction and the factors having only limited potential above a certain level for improving job satisfaction. If a college administrator is trying

to determine which factors are causing either job satisfaction or job dissatisfaction, it would seem that collecting data by means of a traditional questionnaire may give misleading results. The question must be asked once to determine those factors associated with satisfaction and once to determine those factors associated with dissatisfaction. The administrator can then identify with greater precision those factors which will tend to increase satisfaction and then concentrate his efforts on improving those factors.

It is a tendency of some administrators to assume that employee benefits must be continuously upgraded to insure high levels of satisfaction. However, in the present study, the factor of employee benefits was one of the least important factors contributing to either job satisfaction or job dissatisfaction. In the present study, such factors as Achievement, Work itself, Academic freedom, and Challenging assignments, appear to be important for job satisfaction. Consequently, the administrator could seek ways to increase these factors to their maximum, thereby increasing the possibility of achieving high satisfaction levels among the faculty.

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APPENDIX A

FIRST LETTER TO FACULTY

March 4, 1970

A research project of general concern is currently being conducted at University to determine some of the factors influencing job satisfaction and job dissatisfaction of college faculty members. Approximately 25 per cent of the full time teaching faculty have been randomly selected to participate in this study. In the near future you will receive a questionnaire that is being used for the study.

Information obtained on this questionnaire will be kept confidential; however, summary data can be provided to the Faculty Salary Committee on Fringe Benefits and to other interested Senate Committees if they desire.

In closing, may I thank you for your consideration in this matter.

Cordially yours,

Office of Institutional Research

APPENDIX B

SECOND LETTER TO FACULTY

TO:

FROM: Office of Institutional Research

DATE: March 9, 1970

Re: Study of Job Satisfaction and Job Dissatisfaction

The purpose of this memorandum is to solicit your help to complete the attached questionnaire dealing with job satisfaction and job dissatisfaction that I indicated in my letter of March 4. This questionnaire can be completed in approximately 15 minutes, and your answers will be kept anonymous.

Please do the following:

1. Remove this sheet from the attached questionnaire and place it in the enclosed small self-addressed envelope. This sheet will be used only to determine which individuals returned the questionnaire.

2. Complete the questionnaire and place it in the enclosed large self-addressed envelope.

3. Return the two envelopes by campus mail as soon as possible.

If you have any questions, please call extension . I realize your time is limited and I sincerely appreciate your cooperation in this research project.

APPENDIX C

THE QUESTIONNAIRE

Think of a time when you felt exceptionally good about your job, either your present or any other college teaching job you have had. The following is a list of some factors which may have contributed to your good feeling at that time. How important was each of these factors in the particular experience you are describing? Please check (✓) only one response for each item.

	This factor was not present	This factor was present but was not important	This factor was present and fairly important	This factor was present and of major importance
(1) I felt there was a good chance I'd be promoted.	1 ( )	2 ( )	3 ( )	4 ( )
(2) I thought my classes were particularly challenging.	1 ( )	2 ( )	3 ( )	4 ( )
(3) I participated in a particularly challenging project such as a committee or research project.	1 ( )	2 ( )	3 ( )	4 ( )
(4) I did a project that received recognition as being a particularly good piece of work.	1 ( )	2 ( )	3 ( )	4 ( )
(5) The working relationship I had with my department head was very good.	1 ( )	2 ( )	3 ( )	4 ( )
(6) I had freedom to speak, teach, conduct research, and write in the field of my competence.	1 ( )	2 ( )	3 ( )	4 ( )
(7) The working relationship I had with colleague(s) was very good.	1 ( )	2 ( )	3 ( )	4 ( )
(8) I was working under a department head who really knew his job.	1 ( )	2 ( )	3 ( )	4 ( )
(9) I was expecting (or received) a merit salary increase.	1 ( )	2 ( )	3 ( )	4 ( )
(10) I had a real feeling of achievement in the work I was doing.	1 ( )	2 ( )	3 ( )	4 ( )
(11) I had exceptionally good working conditions.	1 ( )	2 ( )	3 ( )	4 ( )
(12) I was given increased responsibility.	1 ( )	2 ( )	3 ( )	4 ( )
(13) I felt secure in my job.	1 ( )	2 ( )	3 ( )	4 ( )
(14) I was getting experiences on the job that were helping me to advance professionally.	1 ( )	2 ( )	3 ( )	4 ( )

	This factor was not present	This factor was present but was not important	This factor was present and fairly important	This factor was present and of major importance
(15) The university improved an employee benefit program that was of importance to me.	1 ( )	2 ( )	3 ( )	4 ( )
(16) Good secretarial assistance was always available to me.	1 ( )	2 ( )	3 ( )	4 ( )
(17) I liked what I was doing.	1 ( )	2 ( )	3 ( )	4 ( )
(18) My job situation changed in such a way as to improve my home life.	1 ( )	2 ( )	3 ( )	4 ( )
(19) I was working in a department that operated very smoothly and efficiently.	1 ( )	2 ( )	3 ( )	4 ( )
(20) Administrative policies that affected my department took into consideration the personal feelings of employees.	1 ( )	2 ( )	3 ( )	4 ( )
(21) The job required the use of my best abilities.	1 ( )	2 ( )	3 ( )	4 ( )
(22) I had prestige in my department.	1 ( )	2 ( )	3 ( )	4 ( )
(23) I was working in a department (or university) of high prestige.	1 ( )	2 ( )	3 ( )	4 ( )

(24) What was your academic rank at the time you just described?

Instructor( ); Assistant( ); Associate( ); Full( )

(25) What were your overall feelings about your job at the time you just described?

No Satisfaction				Highly Satisfied
1	2	3	4	5
( )	( )	( )	( )	( )

If there is an additional factor that is not included in the above list which contributed to your good feeling about your job, please indicate this factor.

Not Important				Extremely Important
1	2	3	4	5
( )	( )	( )	( )	( )

Think of a time when you felt exceptionally dissatisfied about your job, either your present or any other college teaching job you have had. The following is a list of some factors which may have contributed to your dissatisfied feelings at that time. How important was each of these factors in the particular experience you are describing? Please check (✓) only one response for each item.

	This factor was not present	This factor was present but was not important	This factor was present and fairly important	This factor was present and of major importance
(26) I felt there was a poor chance I'd be promoted.	1 ( )	2 ( )	3 ( )	4 ( )
(27) I thought my classes were not particularly challenging.	1 ( )	2 ( )	3 ( )	4 ( )
(28) I participated in few particularly challenging projects such as a committee or research projects.	1 ( )	2 ( )	3 ( )	4 ( )
(29) I did a project that received little recognition as being a particularly good piece of work.	1 ( )	2 ( )	3 ( )	4 ( )
(30) The working relationship I had with my department head was very poor.	1 ( )	2 ( )	3 ( )	4 ( )
(31) I had little freedom to speak, teach, conduct research and write in the field of my competence.	1 ( )	2 ( )	3 ( )	4 ( )
(32) The working relationship I had with colleague(s) was very poor.	1 ( )	2 ( )	3 ( )	4 ( )
(33) I was working under a department head who really did not know his job.	1 ( )	2 ( )	3 ( )	4 ( )
(34) I was not expecting (or did not receive) a merit salary increase.	1 ( )	2 ( )	3 ( )	4 ( )
(35) I had little feeling of achievement in the work I was doing.	1 ( )	2 ( )	3 ( )	4 ( )
(36) I had exceptionally poor working conditions.	1 ( )	2 ( )	3 ( )	4 ( )
(37) I was not given increased responsibility.	1 ( )	2 ( )	3 ( )	4 ( )
(38) I felt insecure in my job.	1 ( )	2 ( )	3 ( )	4 ( )
(39) I was not getting experiences on the job that were helping me to advance professionally.	1 ( )	2 ( )	3 ( )	4 ( )

	This factor was not present	This factor was present but was not important	This factor was present and fairly important	This factor was present and of major importance
(40) The university did not introduce an employee benefit program that was of importance to me.	1 ( )	2 ( )	3 ( )	4 ( )
(41) Good secretarial assistance was seldom available to me.	1 ( )	2 ( )	3 ( )	4 ( )
(42) I disliked what I was doing.	1 ( )	2 ( )	3 ( )	4 ( )
(43) My job situation changed in such a way as to aggravate my home life.	1 ( )	2 ( )	3 ( )	4 ( )
(44) I was working in a department that operated with discord and inefficiency.	1 ( )	2 ( )	3 ( )	4 ( )
(45) Administrative policies that affected my department did not take into consideration the personal feelings of employees.	1 ( )	2 ( )	3 ( )	4 ( )
(46) The job did not require the use of my best abilities.	1 ( )	2 ( )	3 ( )	4 ( )
(47) I had no prestige in my department.	1 ( )	2 ( )	3 ( )	4 ( )
(48) I was working in a department (or university) of low prestige.	1 ( )	2 ( )	3 ( )	4 ( )

(49) What was your academic rank at the time you just described?

Instructor( ); Assistant( ); Associate( ); Full( )

(50) What were your overall feelings about your job at the time you just described?

No Dissatisfaction				Highly Dissatisfied
1	2	3	4	5
( )	( )	( )	( )	( )

If there is an additional factor that is not included in the above list which contributed to your dissatisfied feeling about your job, please indicate this factor.

Not Important				Extremely Important
1	2	3	4	5
( )	( )	( )	( )	( )

BIOGRAPHICAL DATA

Do not write in this space

Department _____ (51) (52)

Rank: Instructor( ); Assistant( ); Associate( ); Full( ) (53)

Years at present rank _____ (54) (55)

Years teaching at _____University _____ (56) (57)

Total years taught at college or university level _____ (58) (59)

Age _____ (60) (61)

Sex: Male( ); Female( ) Status: Married( ); Divorced( ); Single( ) (62) (63)

Highest earned degree:
Baccalaureate( ); Masters( ); Specialist( ); Doctorate( ) (64)

How many articles, booklets, or pamphlets have you published in the last five years: (Count any papers delivered at professional meetings, but not published.)
none( ); one( ); two-five( ); six-ten( ); more than ten( ) (65)

How many books have you had published in the last five years?
none( ); one( ); two( ); three or more( ) (66)

The majority of my classes I am now teaching are in my area of speciality.
yes( ); no( ) (67)

How satisfied are you with your present job?

Highly Dissatisfied			No satisfaction No dissatisfaction						Highly Satisfied	
1	2	3	4	5	6	7	8	9	10	(68) (69)
( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	

YOUR ASSISTANCE IS APPRECIATED

APPENDIX D

DEMOGRAPHIC CHARACTERISTICS OF THE FACULTY MEMBERS

TABLE D-1

AGE OF FACULTY MEMBER

PRESENT RANK	NUMBER	AGE OF FACULTY MEAN	MODE	RANGE
Instructor	22	32	37	23-57
Assistant	57	38.7	33	27-62
Associate	74	43.1	38	30-65
Full	48	53.3	51	34-69
Not Indicated	13	--	--	--
All Ranks	214	43.1	41	23-69

TABLE D-2

TOTAL YEARS OF TEACHING EXPERIENCE AT
COLLEGE OR UNIVERSITY LEVEL

PRESENT RANK	NUMBER	YEARS TAUGHT MEAN	MODE	RANGE
Instructor	22	2.5	3	1-6
Assistant	56	7.1	5	1-27
Associate	75	11.6	6	3-26
Full	50	21.2	15	5-40
Not Indicated	11	--	--	--
All Ranks	214	11.7	5	1-40

TABLE D-3

YEARS TEACHING AT PRESENT UNIVERSITY

PRESENT RANK	NUMBER	YEARS TEACHING MEAN	MODE	RANGE
Instructor	22	2.1	1	1-6
Assistant	58	5.0	2	1-27
Associate	74	9.0	5	1-26
Full	48	15.1	14	1-31
Not Indicated	12	--	--	--
All Ranks	214	8.6	5	1-31

TABLE D-4

YEARS OF TEACHING AT PRESENT ACADEMIC RANK

PRESENT RANK	NUMBER	YEARS AT RANK MEAN	MODE	RANGE
Instructor	22	2.1	1	1-5
Assistant	57	4.4	1	1-27
Associate	74	4.7	2	1-21
Full	46	8.0	4	1-25
Not Indicated	15	--	--	--
All Ranks	214	5.1	1	1-27

TABLE D-5

HIGHEST EARNED DEGREE

PRESENT RANK	NUMBER	BACHELOR	MASTER	SPECIALIST	DOCTORATE
Instructor	22	2	18	-	2
Assistant	58	-	33	2	23
Associate	76	-	25	3	48
Full	50	-	7	-	43
Not indicated	8	-	1	-	-
Total	214	2	84	5	116

BIOGRAPHICAL SKETCH

Lloyd George Swierenga was born March 14, 1937 in Grand Rapids, Michigan. He graduated from South High School in June 1954. He attended Western Michigan University and received his Bachelor of Science Degree in 1961 and his Master of Arts degree in 1963. He attended Michigan State University, East Lansing, Michigan, and received his Educational Specialist Degree in 1966. In Septenber, 1968, he began a graduate program in Educational Leadership at Western Michigan University and will receive the Doctor of Education Degree in August, 1970.

Lloyd George Swierenga married the former Judith Lee Carroll of Grand Rapids, Michigan, and is the father of three children, Deborah Lynn, David Michael, and Mark Phillip.