

MOTIVATORS FOR HIGHER EDUCATION.

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BY

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D E C L A R A T I O N

Certified that dissertation entitled "Motivators for Higher Education" submitted by Anju Deepak, is in fulfilment of eight credits out of the total requirement of twenty four credits for the Degree of Master of Philosophy of this University. This dissertation has not been previously submitted for any other Degree of this University or any other University and is her own work.

We recommend that this dissertation may be placed before the examiners for evaluation.



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A C K N O W L E D G E M E N T S

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CHAPTER - I

IMPORTANCES OF MOTIVATION IN EDUCATION

Education is a multifacet process to which both cognitive and non-cognitive factors contribute. Cognitive factors are functional in the acquisition of knowledge, skill, learning and development of the individual. Non-cognitive factors, on the other hand operate through the other psychological processes like attitudes, values, motives, desires and interests etc. These two types of factors interact together in a multiple order making education a complex, dynamic and continuous process facilitating the overall development of the individual.

For a long time educationists and psychologists had stressed only the importance of cognitive factors in the process of educational attainment. Non-Cognitive factors and particularly the motivational factors were either neglected totally or were given only marginal importance as compared to the other factors. Lately, Mallinson (1968)¹ Jones (1973)² have shown that non-cognitive factors contribute quite significantly to improved performance of students. Students with high intelligence donot necessarily perform to a satisfactory level, unless they are also enthusiastic, willing to work hard and have favourable attitude towards their education. They observed that non-cognitive factors like interest, attitude, level of aspiration and motives play a significant role in determining the quality of student performance.

1. Mallinson George. Factors affecting college student's achievement in science. Research in Education, 1968, 4: 98.

2. Jones, Paul W. Sex differences in academic predication. Measurement and Evaluation in Guidance, 1970, 3, 88-91

Motivation has been labelled as one single important non-cognitive factor leading to the differential educational performance. It has been observed that two students with equally high potential do not necessarily display equally good performance. Their performance is likely to be different, because of differences in motivational forces operating on the two. One with high motivation is likely to have an accelerated development of his talents than the student with low motivation. Motivation provides a purpose to one's efforts. It serves as an incentive which drives the student to direct his energy and efforts in the direction of satisfying his ambitions. Catherine Cox et al (1961)¹ observed that geniuses are characterized not only by very high intelligence, but by the desire to excel, by perseverance in the face of obstacles, and by zeal in the exercise of their natural gifts. Cox et al were of the opinion that talents without motivation can be of little use.

Motivation remains critical to student performance at all levels of education, but its effects become increasingly prominent at the higher levels of education. It is believed that by the time a student reaches the stage of higher education, he is relatively more aware of his strengths and limitations. He can make his choices at a more mature level and can consciously attempt to sustain his interest in these choices. Motivation operative in college students, may be discussed with reference to the following two stages:

1. At the time of entrance to college.
2. After entering the college.

1. Catherine M. Cox et. al., The Early Mental Traits of Three Hundred Geniuses. Stanford University Press, 1926.

At the time of entrance:

Students display diverse needs, potentialities and interests, and are expected to function within the limits set by many extraneous factors. In fact, number of allusive and subtle motivational variables remain important in his decision to go to the college. A student may decide to go to the college due to the multiplicity of his motives and may not be aware of some of these. For example, one student may decide to go to the college for getting trained in a particular vocation, while he also wants to be independent, to gain security and to get away from home. Some other student may go to the college to find a suitable match. Some may go with the desire of excelling in specific areas while some may go because they find it as the best way to spend their time, a way of leisure time. To a certain extent the diversity in motivational pattern arises because students grow up and live in many different kind of environments, while to a certain extent differences may be real.

Elizabeth Douvan and Carol kaye (1959)¹ studied the psychological forces that may affect the decision of American teenagers to go to the college. Douvan and kaye reported that differences in motivation relate to socio-economic background of parents. They observed that social class would influence the conception of college as a mobility channel. For many youngsters coming from upper and upper middle class homes, the question of going or not going to the college probably never arises. The student knows it is there. In this setting, rather a decision

1. Douvan, Elizabeth and Kaye, Carol. Adolescent Girls. Ann Arbor, Mich. Survey Research Centre, The University of Michigan, 1956.

not to go to the college is major and highly individual one, and requires unusual and intense motivation and a deviant personal integration. Many of the middle class parents see college serving several purposes at a time. It is to provide the young persons vocational preparation, a general intellectual broadening, and an opportunity to grow and develop, to grow in knowledge and skill, and also in emotional stability and autonomy. Whereas to young people of lower social status, the decision for college is more conscious. On the borderline of economic ease motivational factors distinguish between those who do and donot enter college quite sharply. To many youngsters, college represents the path to social mobility, the chance to increase their share of social and economic rewards. Besides the vocational motive, an intellectual and emotional growth is experienced and a mobility channel is quite prominent.

Elizabeth and Kaye observed sex differences also in motives and indicated that sex would affect the degree of emphasis on vocational preparation, release from authority, and glamour in the youngster's anticipation of college experience. Boys conceive college as a vocational preparation more often than girls, who think of college in terms of glamour and romance. In girls the need for autonomy is not as great as in case of boys. Douvan observed that besides these, certain other conscious motives also have an impact on the choice of going to the college, such as social status, motivational variable, and other psychological forces.

Havighurst & Rodgers (1965)¹ also reported that differences in motivation to go to the college relate to socio-economic background of parents. They observed that if a child grows up in a family which expects him to go the college, he is very likely to do so. The upper class parents donot rely on the college education to maintain its position. One of the factors in attending college is family attitude. If there is family tradition for going to college, if there is family respect for learning, then youngster will go to the college.

Kahl (1953)² explored the extent to which social influences help in accounting for differences in motivation to go to the college among high school boys of similar background and intelligence level. He drew a sample of 24 boys for interview analysis from a larger sample of 3971 boys on whom questionnaire data were available. The subjects were divided into two groups. 12 boys who were in the college preparatory course and had planned to go to college after high school; 12 boys who were not in the college preparatory course and had not planned to go to academic college after high school. The IQ and social status of parents were found to be useful predictors of educational and occupational ambitions of high school boys. Most boys with high IQ and high social status planned a college career, whereas most boys with low intelligence and low status homes didnot aspire to higher education.

Kahl found parental pressure to be highly associated with the differences in the motivation to go to college. He observed that in low middle class, some subtle irritation of the parents,

1. Havighurst, R.J. and Rodgers, R.R. The role of motivation in attendance at post high school educational motivation in Hollinshead, B:S, 'Who Should Go To College'? New York: Mc. Graw Hill, 1957, 135-165.
2. Kahl, J.A. Educational and Occupational aspirations of 'Common Man' boys. Harvard Educational Review, 1953, 23, 186-203.

some dissatisfaction with their own life, is the critical feature that distinguishes the family situation of boys who intend to go to college from those who do not intend to go to college. In these families, the parents translate their personal dissatisfaction into a mobility quest as they communicate it to their sons. Equally able boys of the same class do not choose to go on to college, primarily because their parents content with their lives and unable to value possible alternatives, do not support and encourage the choice.

The mobility theme also comes through in a four year longitudinal study of high school students by Hills (1954)¹. Hills conducted interviews over 400 Southern Ohio Youth to determine the factors which influence their post high school plans. He observed that most potent determiners of college proneness remain in cultural and educational traditions, ambitions and hopes of family. Parents who have attended college usually want their children to go the college. Among parents who have had little education, there are many who want their children to get ahead and see college as the means of improving one's lot. A history of college attendance in the family, friends in the college all are strong determiners of proneness. The under valuation of education at home, lack of pressure from friends to attend, desire for job & family ties, all these forces keep many youngsters away from college who potentially are quite likely to succeed.

It appears from the above discussion that some students are more prone to attend college than others. The decision to go

1. Hills, G.E. College proneness a guidance problem. Personnel Psychology, 1954, 33, 70-73

to the college is a product of a complex of social, psychological and educational forces. The differences in motivation relate to differences in socio-economic background, and parental pressure.

After entrance into the college:

Motivation is important at the time of entrance and remains important even after entering into the college. In fact once the motivation to enter has been attended, the college has to sustain these motives by developing appropriate programmes. The differences in motivation shall be reflected in the differences in student's performance in the college.

Uhlinger and Stephens (1960)¹ examined the relationship between achievement motivation and academic performance. Using 32 college students as subjects their results supported the hypothesis that achievement motivation is greater for academically successful students than for the unsuccessful students.

K.M. Lum (1970)² tested the hypothesis that students who under-achieve differ significantly from those who overachieve in their motivation for studying and in their attitude towards various aspects of academic situation. He drew three experimental groups from two classes in introductory psychology. His results indicated that more motivated students performed well than the less motivated.

Atkinson and Reitman (1962)³ examined the relationship between achievement and performance of 96 male college students. Their results showed that highly motivated groups were uniformly higher in performance than the less motivated groups.

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1. Uhlinger, C.A. and Stephens, M.W. Relation of achievement motivation to academic achievement in students of superior ability. Journal of Educational Psychology, 1960, 51, 259-260.
 2. Lum, K.M. A comparison of over and under achieving female college student. Journal of Educational Psychology - 1960, 1, No. 3, 109-113.
 3. Atkinson, J.W. and Reitman, W.R. Performance as a function of motive strength and expectancy of goal attainment. Journal of Abnormal and Social Psychology, 1956, 53, 361-366.

Sinha (1966)¹ attempted to analyze the factors associated with success and failure of university students. The study was conducted over 375 students of Allahabad University, of which 185 were high achievers and 90 were underachievers. Students were tested for their level of aspiration and need for achievement. The high achievers were found superior in their intellectual capacity and manifesting a high level of motivation for success.

Sinha (1970)² investigated the relationship between need for achievement and the academic achievement of school going children from classes X and XI. Results showed that achievement is positively correlated with academic achievement of students.

Singh (1971)³ tested 160 school children and found school performance positively related to academic performance. Highly motivated students performed better than the less motivated.

Mehta (1971)⁴ undertook a study to test the effect of two motivation training programme on the scholastic achievement of high school boys. One was designed to increase achievement and other was designed to boost the aspiration for academic performance. These programmes were taken up with class IX science students studying in seven schools of Jaipur, five of which were treated as experimental and the two as controls schools. The objective of the study was to see whether pupils in experimental groups would show better scholastic achievement than the control groups. Results indicated that bright under achieving pupils in experimental groups

tended to show somewhat better performance than those in control

1. Sinha, D. A psychological analysis of some factors associated with success and failure in university education. A Summary of Findings, Indian Educational Review, 1966, 1, 34-47.
2. Sinha, N.C.P. Need for achievement and academic attainment. Indian Educational Review, 1970, 5, 2, 59-64.
3. Singh, R. Academic motivation as determinant of school attendance and attainment, Indian Educational Review, 1971, 6, 233-237.
4. Mehta, Prayag. The Achievement Motive in High School Boys: N.C.E.R.T. Delhi, 1968.

group, suggesting that improvement in academic performance of under-achieving high school boys were possible through motivation training.

Stevens (1975)¹ made an attempt to identify the factors concerned with success and failure in academic work on the basis of students drawn from 48 schools. Using a questionnaire teachers were asked to select attributes which were favourable and unfavourable to the success of each individual students. The analysis showed six factors - Non-involvement, background, good student, drive, confidence and inconspicuousness. The non-involvement factor was found to be strongly related to success in the academic work.

A few studies have attempted to equate motivation to performance in terms of personal, social and institutional characteristics. Personal characteristics of students like abilities, aptitudes, motives, interests, values, beliefs, personality are found to be important determinant of academic performance. Studies by Harris (1940)² showed that scholastic ability, aptitude, effort, drive and motivation are of major importance. Elva, Burgess (1956)³ observed that over and under achievement relates to the personality needs of students. Rorschach and TAT were administered to two groups of students. On the TAT the over achievers scored significantly higher on achievement and self improvement needs. The under achievers scored higher on dependence need. As a group over achievers were found to be more intellectually adaptive, more constructive and

1. Stevens, F. Elements of success and failure in sixth form students. British Journal of Educational Studies, 1975, 23, 1, 49-58.

2. Harris, D. Factors affecting college grades: A review of the literature. Psychological Bulletin, 37, 1940.

3. Burgess, Elva. Personality factors of over and under achievers in engineering, Journal of Educational Psychology, 1956, 47, 1, 89-99.

having a greater need for achievement and self improvement.

Bhatnagar and Ram Prashad (1967)¹ found that highly intelligent students were more achievement oriented and more dominant. Madan(1967)² found that the attitude of over achievers was more favourable to the subject in which they overachieve. He concluded that the lack of motivation caused unfavourable attitudes among students towards a subject.

Joseph H. Brittan(1962)³ reported that children from higher socio-economic status performed better than lower class children. De and Shambhon Priya(1970)⁴ made an attempt to study the relationship between social factors and performance. Results showed that students coming from high economic background performed better than students coming from low economic group. However these studies didnot specify the effect of socio-economic class on motivation in particular. Student's performance is found to relate to different methods of teaching, teachers ability, attitude for teaching, staff-student relations, institutional ethos. Nichols(1964)⁵ studied the effect of different college characteristics on student performance. A sample of 356 National merit finalists attending 11 colleges were used to assess the effect to college characteristics on students performance. Pre college characteristics of the students were controlled. Results showed that college characteristics like students ratio, library books per students, method of teaching affected the performance of students.

Alexander W. Astin (1963)⁶ compared the effect of different college characteristics on the students motivations in obtaining a

1. Bhatnagar, Ram Prasad. A study of some of the personality factors as predictors of academic achievement. Unpublished Doctoral Thesis, University of Delhi, (1967)
2. Mohan, Madan. An investigation into the causes of under achievement in mathematics of IX class students in some higher secondary schools of Delhi. M.Ed., 1967, C.I.E., Delhi.
3. Joseph, H. Brittan. Influence of social class upon performance on the draw-a-man test. Journal of Educational Psychology, 1954, 45, 44-51.
4. De, B and Priya, S. Some personal and academic correlates of achievement motivation. Indian Journal of Psychology, 1972, 47, 55-65.
5. Nichols., R.C. Effects of various college characteristics on student aptitude test scores. Journal of Educational Psychology, 1964, 55, 1, 45-54.
6. Astin, A.W. Differential college effects on the motivation of talented students to obtain the Ph.D. Journal of Educational Psychology, 1963, 54, 63-71. (b)

Ph.D Degree. Using an input - output design in a 4 year longitudinal study of 6,544 high aptitude students, he found Ph.D aspiration affected by the size of students body, the percentage of the males in the students body, conventional and social orientation in the college.

It appears therefore that student motivation is the function of both individual and environmental factors and it does affect student performance in college. The stronger the level of motivation the greater may be probability that student will exert more of himself, strive hard for accomplishing high academically.

Besides, differences in student motivation should be visible in differential satisfaction of socio-psychological needs, a fact relatively little emphasized in the existing researches. Opting for higher education implies the satisfaction of social needs, however subconscious may be the level. What a student wants from higher education and what stimuli constitute effective incentives to let him continue in higher education may be better understood by knowing the etiology of motivated behaviour in educational settings.

The above discussion indicates that the two types of factors may be affecting the overall motivation of an individual student. One of these which facilitate the functioning of motives may be labelled as environmental factors, such as working conditions, the college climate etc., while, another set of factors known as motivators, is internal to the student himself. Motivation may be

defined as a state of impelling force in the student, which directs him to enter college and sustain the activity towards a certain goal. The internal needs are hypothesised at the core of it. The three distinct stages of motivated behaviour are the following.

1. The state of motivation operating within the student himself. It is a state of internal disequilibrium which he tries to bring back to balance by indulging into appropriate activities.
2. The action part of the behaviour. The student activates himself in such a manner that his action is helpful in the attainment of the desired goal.
3. The feeling of satisfaction. This is achieved when the goal is achieved as a result of the motivated behaviour.

The present research attempts to examine and identify the motivators in college, its operation and the consequent impact on student performance, within the framework of Motivation - Hygeine theory of Herzberg et al (1959).

CHAPTER - II

MOTIVATIONAL CONSTRUCTS:

The question basic to the search of motivators is to know why does one go for higher education? The question could be answered in terms of number of theoretical constructs such as instincts, drive, reinforcement and needs.

Motivation as Instinct:

Mc Dougall (1954)¹ used the doctrine of instinct as an explanatory concept of behaviour within the framework of purposiveness. He emphasized that all life processes are fundamentally purposive and that behaviour is characterized by striving in the pursuit of ends. The goal seeking behaviour shows persistence until the goal is achieved.

Later, many other psychologists including Thorndike(1916)² John Dewey(1986)³, Watson(1914)⁴, and Woodworth(1918)⁵ made use of the concept of purposive behaviour in explaining various aspects of human behaviour.

Motivation as Drive:

Miller and Dollard (1913)⁶, Woodworth (1918)⁷, Hull(1943)⁸, considered motivation as drive. According to this view biological or homeostatic drives are the primary source of all action. Drive is the resultant of a physiological deficit and it instigates the organism to undertake behaviour which would result in the offset of need.

1. Mc Dougall, W. An Introduction to Social Psychology, London: Methuen & Company, 1908.
2. Thorndike, E.L. Animal Intelligence, Macmillan Co., 1911.
3. Dewey, J. Psychology, Harper and Row.
4. Watson, J.B. Behaviour: An Introduction to Comparative Psychology, H. Rinehart and Wineton, 1914.
5. Woodworth, R.S. Dynamic Psychology, Columbia University, Press, 1918.
6. Miller, N.F. and Dollard, J. Social Learning and Imitation, Yale University Press, 1941.
7. Woodworth, op. cit.
8. Hull, C.L. Essentials of Behaviour, Yale University Press, 1951.

Motivation as Reinforcement:

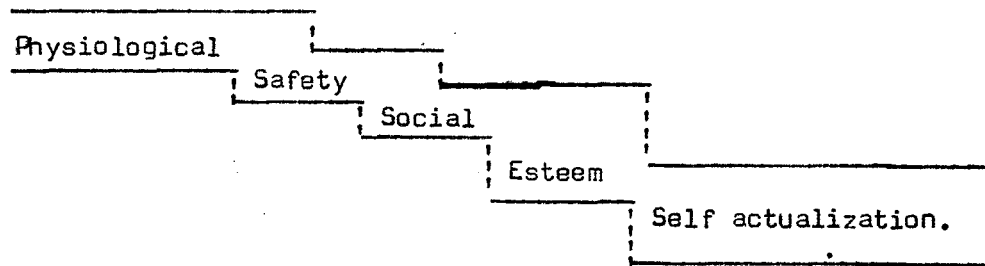
Mc Clelland (1957)¹ defined motivation as reinforcement. According to this view reinforcing stimuli themselves serve as the basis of motivation. Certain stimuli and stimulus configuration are intrinsically pleasurable or painful to individuals and generate motivation in individual and instigate approach or withdrawal actions in relation to the stimuli.

Motivation as Need:

According to this view needs form the basis of motivation. Bodily needs give rise to drives as their psychological representation and these drives than spur activity until a goal is reached which can reduce the drive through satisfying the need.

An important contribution in terms of needs is made by Maslow (1954)² in his Need-Hierarchy model of motivation.

According to Maslow needs in every individual operate in a heirarchical order.



The physiological needs are at the top of hierarchy because these tend to have the highest strength, until these are somewhat satisfied. These are the basic human needs which sustain life. Once physiological needs become gratified the safety needs

1. Mc Clelland, D.C. Studies in Motivation, New York: Appleton - Century-Crafts, 1955.
2. Abraham H. Maslow. "Motivation and Personality" Harper and Row, Publishers, Inc. New York (1954).

become predominant. These needs are the needs to be free of fear of physical danger.

Once physiological needs are well satisfied, social or affiliation needs will emerge as dominant in the need structure. When social needs become dominant a person will strive for meaningful relations with others.

After an individual begins to satisfy his need of belongingness, he generally wants to be more than just a member of his group. He feels the need for esteem - recognition from others.

Only after the esteem needs are adequately satisfied, the self - actualization need becomes prepotent. This is the need to maximize one's potential. Physiological and safety needs are the most prepotent needs and self actualization is least prepotent for all the individuals. When one need is fairly satisfied, the next prepotent need emerges as a dominant need. It serves as the centre of organization of behaviour, since gratified needs are no more active motivators. Maslow stated that persons whose lower level needs are as yet ungratified should obtain both their satisfaction and dissatisfaction solely from fluctuation in the degree of gratification of lower order needs, which primarily constituted the context element. Persons whose lower level needs are conditionally gratified would receive both satisfaction and dissatisfaction from fluctuation in the degree of gratification of their higher level needs. Persons whose position results in unconditional gratification of their lower order needs would obtain both satisfaction and dissatisfaction solely from fluctuations in higher order needs.

Maslow's theory has made valuable contribution in drawing attention of the psychologists to the satisfaction of lower order needs, sometimes which are neglected by organisations and in the absence of satisfaction of which higher needs are not met effectively. However his theory has certain drawbacks; Maslow has placed too much emphasis on the individual himself. He did not give due consideration to the environment which may motivate the individual. It is important to know about the individual needs, but it is also important to know about the environment in which need fulfillment occurs. Motivation is a function of both individual and environment. If the environment is not perceived by the individual as conducive to the fulfillment of a need, chances are that such a ungratified need have dysfunctional effects leading to dissatisfaction.

Herzberg developed the Two - factor theory of motivation based on Maslow need theory, stressing environment in defining motivation. He defined motivation in terms of both individual and the environmental factors.

Two - factor Theory of Job Satisfaction:

Herzberg used the Maslow's concept of needs as the basis of his conceptual framework. He tested the proposition that every individual has two different kinds of needs. One set of needs stem from man's animal nature that is needs to avoid pain. Another set of needs stems from human nature to seek pleasure. The first set of needs is comparable to Maslow's deficiency motives. These needs are the ones which form the basis of hygiene factors. However, since these needs help only in reducing pain, they donot lead directly to

the individual's growth. The second set of needs which Herzberg called 'Growth' needs are like Maslow's 'Growth Motives'. These have a bearing on self actualization, since psychological growth can only be achieved through the successful completion of the task. Only the factors having to do with the intrinsic aspects of the job - the motivators - can influence these inherent growth needs. These growth needs can be influenced by factors relating to the intrinsic aspect of the job. These motivating factors are not able to relieve pain nor do these satisfy the avoidance need just as the hygiene factors cannot satisfy the growth needs. Herzberg's theoretical framework seems quite comparable with Maslow's need hierarchy. The only difference is that Maslow refers to needs or motives. While Herzberg deals with goals or incentives that tend to satisfy these needs. Money and other benefits tend to satisfy needs at the physiological and security levels examples of hygiene factors, while increased responsibility, challenging work, and growth and development are motivators that tend to satisfy needs at the esteem and self actualization levels.

Herzberg applied the dual factor concept of the motivator - hygiene to job attitudes appearing in his publication in 1959 the 'Motivation to work' (Herzberg et al 1959)¹ the second book of trilogy, the first of which was 'Job Attitudes'. In 1966 Herzberg published replication of his original research in the third book called 'Work and the Nature of Man' (Herzberg 1966)² in which he elaborated on the genesis of his theory of the duality of man's nature.

His approach to job satisfaction implies that job satis-

1. Herzberg, F. Mausner, B. & Snyderman, B. The Motivation to Work, New York: John Wiley and Sons, Inc. 1959.

2. Herzberg, F. Work and the Nature of Man: Cleveland, Ohio, World Publishing Company, 1966.

faction is the total body of feelings an individual has about his job, his feelings being made up of both job related and environment related factors, the interaction of which causes fluctuation between a condition of satisfaction and of dissatisfaction. The midway between satisfaction or positive feelings about the job, and dissatisfaction or negative feelings about the job is a condition of neutrality, in which the individual is neither satisfied nor dissatisfied. Dissatisfaction is thus the opposite or obverse of satisfaction. If an individual is deprived of any factors or combination of them, such as pay, interpersonal relations, responsibility etc. he moves toward the negative end of the continuum, unless the presence of other factor counterbalances the lack, adding or improving a factor or combination of them causes movement in a positive direction. Some factors affect the distance moved more than the others do, but there is no agreement on their order of importance.

<u>Dissatisfaction</u>	<u>Neutrality</u>	<u>Satisfaction</u>
Negative feelings		Positive feelings.

Conventional continuum

In contrast to the conventional bipolar approach, Herzberg's Motivation - Hygiene theory was hypothesized to guide a depth interview study of 200 engineers and accountants.

Herzberg et al (1957) made an extensive review of the literature on job attitudes. Covering some 2000 articles they undertook a study to investigate the job attitudes of workers. One of the important findings that emerged from, "Job Attitudes, the

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1. Herzberg, F., Mausner, B., Peterson, R. and Capwell, D. Job Attitudes: Review of research and opinion. Pittsburgh: Psychological Services of Pittsburgh, 1957.

review of Research and opinion¹ revealed that there was a difference in the primacy of factors, depending upon whether the investigator was looking for things the workers liked about his job or things he disliked.

The study, reported in The 'Motivation to work' (Herzberg et al 1959)¹, was designed to test the implication that certain factors in the job were satisfying, while other factors in the job were dissatisfying. The study was designed to specify attitudes, identify factors, and examine the effects of attitudes expressed by respondents. The hypothesis suggested that factors producing job satisfaction are separate and distinct from those producing job dissatisfaction. If the factors are separate, depending on which feeling is being affected. Herzberg concluded that these two feeling are not the obverse of each other, and the job satisfaction is made up of two unipolar traits. Psychological traits have, therefore, been assumed to be unipolar.

In choosing their methodology, Herzberg et al (1964) took into cognizance the pitfalls of investigating attitudes. First of all the researcher cannot be really sure that the respondent has an attitude or feeling, since many people gladly respond even when they have none. Secondly, even if person has feeling, the researcher cannot be sure of his getting a true description rather than rationalization. Thirdly, one cannot equate feelings without somehow putting them on a scale, which does not serve to measure the reality of the experience, but merely puts it into the context of measuring device.

1. Herzberg et. al. op. cit.

To meet the first of the above described objectives, Herzberg et al, included a study of changes in job attitudes, hoping that if an attitude changed it really existed. The investigators also focussed on experiences which included substantive data and could be analyzed separately from the interpretation placed on them by the respondent. Lastly, they avoided including a scale or measure on feelings.

A semi - structure interview known as critical incident technique was employed to elicit the information from the respondents. The study used 200 engineers and accountants as subjects. The interviews probed into sequences of events in the work lives of the respondents to determine the factors that were involved in their feelings exceptionally happy and conversely exceptionally unhappy with their jobs. The respondent could describe either 'good' or 'bad' a 'long' or 'short' sequence of events as his first anecdote. They were asked to relate the reasons for their feelings as they did, and how the feelings affected their performance on the job, their personal relationship and their sense of well being. They were also asked to describe how they returned to normacy (Herzberg 1966). After they had completely described the first event, they were asked for second event, with the stipulation that it would be different from the first in the feeling described and in duration.

In order, for an event or sequence of events, to qualify as a critical incident, it had to be bound by time (having beginning, middle and an end), the feeling described had to be outstandingly good or bad, the person must have been in his present job class when

the event occurred, and the incident must have been directly related to his job not to his personal life.

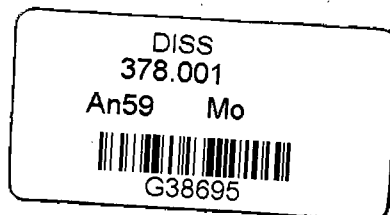
In determining the criticalness of sequences a rating scale was used. Interviewers were given rating scale containing 21 positions and were asked to rate, how seriously their feelings about their job had been affected by what happened.

A subsequent analysis of the data revealed that intrinsic factors (factors those related to the job itself) were most often associated with good or happy feelings about the job, while extrinsic factors (those related to the job context or environment) were most often associated with bad or unhappy feelings about the job. Herzberg referred to the intrinsic factors as 'motivators' or 'satisfiers', and to the extrinsic factors as 'dissatisfiers' or 'hygienes'. Motivators fulfill the individual's need for growth and hygiene factors help him to avoid unpleasantness or discomfort.

The motivators were identified in terms of achievement, personal growth, advancement, responsibility, work itself and recognition. Hygiene factors included company policies and practices, physical conditions, interpersonal relationships, status, employment, security and money.

The preponderance of the effect of motivators was on the positive or high side (to the right of zero), and, conversely, the preponderance effect of the hygiene factors is on the 'negative' or low side (to left of zero). The motivators generally were

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determiners: of long term changes, and hygiene factors produced only short term positive changes of attitude.

Herzberg et al concluded that their hypothesis of duality was supported by the evidence: that is job satisfaction is made up of two unipolar traits, if represented by continua, the traits would appear as follows.

The absence of motivators or satisfiers causes conditions of 'no satisfaction', but does not contribute significantly to 'dissatisfaction'. Similarly, the presence of hygiene factors causes a condition of 'no satisfaction', but does not contribute significantly to 'satisfaction'. The absence of motivators may increase sensitivity to lack of hygiene factors. In this case hygiene factors might temporarily relieve the need for motivator (Herzberg 1966). Herzberg's motivators and hygienes may be summarized as follows:

Motivators:

Motivators have an uplifting effect on human attitude. These increase job satisfaction and result in improved performance. A person with strong motivators influencing his work will give more freedom to his subordinates, will exercise more initiative in doing his work and will do it in his own way. It implies control on one's work and opportunity for self development, personal growth and self-actualisation. Being assigned stimulating or challenging work, being given considerable responsibility and position of importance and being accorded recognition for good work - all these generate good feelings and motivate the person for superior

performance. These push him upto the optimum limit of his capabilities. Because of the apparent capacity to create job interest and willingness for more efforts, these have been termed as motivators.

Hygienes:

These are associated with job dissatisfaction and are concerned with the environment in which the task is done. These may prevent frustration but may not create job interest and donot contribute to improvement in the performance of an individual. In view of the preventive function, these have been christianed as 'hygiene factors. Inadequacy of hygiene factors has a negative effect on ones attitude or performance. Hygiene factors donot motivate people. If employees of a certain company are given better fringe benefits or are provided with better working conditions, this would probably reduce their dissatisfaction but it would not motivate them for better performance. Nevertheless, Herzberg regarded hygiene factors as necessary preconditions for effective motivators. In other words, motivators would operate only when there is a base of hygiene factors. Though satisfying working conditions, wages and security may not motivate people, these must exist if people are to be motivated at all. And if people are deprived of these motivators will deteriorate quite rapidly.

According to Herzberg, every need motivates people to undertake activity. As such, hygiene factors are motivational in the normal sense as in the case of urge and opportunity for self development. Hygiene factors do not motivate people to perform

better, but when satisfaction is poor or communication is unsatisfactory, people are likely to get discouraged and will do just enough work to get by. Herzberg further stated, that these two sets of factors are not opposite of each other; but each operates on its own dimension instead. No matter how interesting and challenging a task may be, there will still be dissatisfaction, if pay or working conditions are not adequate. No matter how good the working environment may be, this alone will not provide the intrinsic satisfaction or motivation that comes from doing a worthwhile job. Herzberg has also applied his duality concept to mental health. He states that mental health is not the mere absence of mental illness, nor does the absence of mental health constitute mental illness. Again two separate continua apply as graphic representations of approach behaviour (mental health continuum) and avoidance behaviour (mental illness continuum).

No satisfaction-----satisfaction
dissatisfaction-----no Dissatisfaction.

Two factor theory of job satisfaction has been replicated in different job situations with different types of subjects. A review of the related researches is presented in the following chapter.

CHAPTER - III

REVIEW OF THE STUDIES RELATED TO

THE TWO FACTOR THEORY

A number of investigators have attempted to replicate and extend the generality of the two factor theory (1959) with varying degrees of success. Replications and extensions are made by including the changes in the types of population and by representing different situations. A review of these studies is undertaken here under the categories:

1. Supportive studies.
2. Partially supportive studies &
3. Non - supportive studies.

The divisions of the studies into various categories is not to be treated as water-tight compartments. The studies are categorized depending upon the investigator's reports, their emphasis, or their points of view. In some cases, classification of the studies results in some artificiality. For instance, studies which are 'supportive' of the theory include in many cases one or two variables which acted against the predictions of the theory.

(A) Studies supportive of the theory:

Studies supportive of the two - factor theory are further classified as:

- (a) Studies concerned with the type of occupation.

- (b) Studies related to over all job satisfaction.
- (c) Studies concerned with the level of occupation.
- (d) Studies concerned with the importance of job factors.
- (e) Studies related to the mental health concept.

(a) Studies concerned with the types of occupation.

Hahn (1959)¹ using 800 U.S. Air Force officers as subjects, gathered data over more than 1000 satisfying and dissatisfying incidents relating to job satisfaction of the subjects. Results indicated that 49 and 33 percent of dissatisfying incidents were related to supervisors and job context respectively, but these factors were mentioned in only two to three percent of the satisfying incidents. On the other hand motivators accounted for 58 percent of satisfying incidents and only one percent of the dissatisfying ones.

Schwartz (1959)² studied the job satisfaction of 373 third level supervisors. Results indicated that achievement and recognition were the factors occurring more often in relation to satisfying experiences, and the company policy and administration were major causes of frustrating experiences.

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- 1. Hahn, C. Dimensions of job satisfaction and career motivation. Unpublished Manuscript, 1959.
 - 2. Schwartz, P. Attitudes of Middle Management Personnel. Pittsburgh: American Institute for Research, 1959.

Gibson (1961)¹ tested the generality of the two-factor theory over 1700 employees. He analyzed Herzberg's 16 factors. He designed a questionnaire to find out respondents opinion concerning the factors relating to their greatest satisfiers on the job. Results of male employees confirmed the Herzberg theory, although only four factors were reported as satisfiers. The female employees did not respond to the negative questions.

Fantz (1962)² studied rehabilitation patients in three hospitals. His subjects were asked to related two satisfying and dissatisfying events from hospital experience and one each from previous job experience. The results indicated that 'Good' events were described in terms of motivators, while 'bad' events were described in terms of Herzberg's hygienes.

Schwartz, Jenusities and Stark (1963)³ varied the critical incident method slightly and studied 112 low level supervisors. The aim was to determine whether job related or context factors were associated with high or low job attitudes.

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1. Gibson, J.W. Sources of job satisfaction and job dissatisfaction as interpreted from analysis of written response. Unpublished Ph.D. Thesis, Western Reserve University, 1961.
 2. Fantz, R. Motivational factors in rehabilitation. Unpublished Ph.D. Thesis, Western Reserve University, 1962.
 3. Schwartz, M.M., Jenusaitis, E. and Stark, H. Motivational factors among supervisors in the utility industry. Personnel Psychology, 1963, 16, 45-53.

Job content and context related factors were found to be associated with good and bad experiences. Most pleasant (high) experiences were related to the conditions of the job itself and conversely unpleasant (low) experiences were related to factors in work environment.

Freidlander and Walton (1964)¹ studied 82 scientists and engineers. Subjects were asked to tell the most important reasons for keeping them in the organization and the reasons that might cause them to leave the organization. Results indicated that reasons for remaining in the organization were more closely related to satisfiers, and reasons for leaving the organization were more closely related to dissatisfiers.

Saleh (1964)² tested the hypothesis derived from two-factor theory on workers relating to different age groups, their age range being between 60 to 65 years. He studied 85 pre-retirees from management positions. Results showed that when the subjects looked back on their earlier vocational career, the findings were supportive of the theory. When they reflected on the time left before their retirement, the theory was not supported.

The two - factor theory has also been tested in other cultures. Such a study was carried out by Herzberg (1964)³ himself,

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1. Friedlander, F. and Walton, E. Positive and negative motivation toward work. Administrative Science Quarterly, 1964, 9, 197-207.
 2. Saleh, S.D. A study of attitude change in pre-retirement period. Journal of Applied Psychology, 1965, 18, 393-402.
 3. Herzberg, F. The motivation to work among finish supervisors. Personnel Psychology, 1964, 18, 4, 393-403.

on a sample of lower level supervisors representing a wide range of industries in Finland. He used 139 supervisors as subjects. Results showed that the motivators and hygienes were involved in positive and negative job attitude sequence. Almost 90% of positive feelings at work were brought about by one or more of the motivational factors. While only less than 10% of the negative attitudes involved the motivators, approximately 80% of the events described as dissatisfying related to hygiene factors as opposed to only 15% of events describing job satisfaction.

Myers (1964)¹ studied 55 engineers, 55 scientists, 50 manufacturing supervisors, and 50 female assembly workers. He slightly varied the Herzberg's methodology but confirmed, on the whole, the predictions of the theory. Results indicated that one motivator acted like a hygiene and other motivators acted like both motivators and hygienes. Different job levels had different job characteristic configurations. The female configuration was different from the four male configurations, suggesting a sex factor. Motivators were absent from the hourly technicians and hourly female assembler configurations, suggesting a job level factor.

Saleh and Grygier (1969)² studied 136 technical staff and indicated that concern with intrinsic factors signified

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1. Myers, S.M. Who are your motivated workers. Harvard Business Review. 1964, 42, 73-88.
 2. Saleh, S.D. and Grygier, T.C. Psychodynamics of intrinsic and extrinsic job orientation. Journal of Applied Psychology, 1969, 53, 446-449.

approach tendencies while concern with extrinsic factors signified avoidance tendencies.

Dayal and Saiyadin (1970)¹ tested the two - factor theory in a different culture and on different samples in the same culture. Using the methodology of the original study, 40 Indian male students, 20 each from technical and non-technical background were individually interviewed. Results indicated that job content factors were more often cited, than the job context factors as satisfying situations, and, conversely, job context factors were more often mentioned as dissatisfying situations. Achievement, recognition, responsibility and interaction with supervisors maximally figured in satisfying situations, and supervision, working conditions, company policies maximally figured in dissatisfying situations.

Lodahl (1970)² studied 52 male and 29 female assembly workers. The pattern of attitudes expressed by the subjects showed that there was no relationship between satisfaction and dissatisfaction. Motivators were found to be different from hygienes.

Davis and Allen (1970)³ analysed the length of time that high and low feelings persisted for a group of 700 employees

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1. Dayal, I and Saiyadin, M.S. Cross cultural validation of motivation - hygiene theory. Indian Journal of Industrial Relations, 1970, 6, 1971-183.
 2. Lodahl, T.H. Patterns of job attitudes in two assembly technologies. Administrative Science Quarterly, 1964, 8, 482-519.
 3. Davis, K. and Allen, G. The duration of motivator and hygiene factors. Personnel Psychology, 1970, 23, 67-76.

according to each of Herzberg's 16 factors. Results showed that for responses as a whole there was a definite tendency for high feelings to persist for a longer period of time than the low feelings. Motivators were the most frequently mentioned causes of high feelings and hygiene factors for low feelings. Advancement and recognition provided higher feelings for longer periods. Lack of advancement, company policies tended to provide low feelings.

Wernimont, Toren and Kopell (1970)¹ undertook a study in order to determine whether employees themselves actually see any difference in the way that various aspects of their jobs affect their work motivation, as compared with their personal satisfaction from those jobs. 775 scientists and technicians were used as subjects. Results, indicated that having a capable supervisor, knowing what is expected of one, having challenging work, and responsibility, being kept informed and participating in decisions were all given more importance for their effects on motivation or job efforts. These results indicate that it is incorrect to use the terms 'motivator' and 'satisfier' interchangeably.

Atchison and Lefferts (1972)² investigated the usefulness of Herzberg's method of measuring job satisfaction and

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1. Wernimont, P.F., Toren, P., and Kopell, H. Comparison of sources of personal satisfaction and work motivation. Journal of Applied Psychology, 1970, 54, 95-102.
 2. Atchison, T.J., and Lefferts, E.A. The prediction of turnover using Herzberg's job satisfaction technique. Personnel Psychology, 1972, 25, 1, 53-65.

the factors developed in predicting turnover among a group of 428 Air Force pilots. Subjects were asked how the positive and negative events affected their performance and career intentions. It was found that positive events were related to positive feelings of performance, and the negative events related to career intentions of leaving the Air Force.

Macarov (1972)¹ studied causes of work satisfaction and dissatisfaction using 182 individuals in Kibbutz as subjects. Results indicated that four of the five factors which were seen to result in more satisfaction than dissatisfaction were work itself, achievement, interpersonal relationship and responsibility, while the one factor resulting in more dissatisfaction than satisfaction was the working conditions.

French, Metersky and Thaler (1973)² tested the validity of the two-factor theory by using sample of 25 male engineers and 20 male system analysts. The purpose of the study was to determine whether results obtained by using a Herzberg type written questionnaire were significantly different from those obtained when Herzberg's oral interview procedure was employed. Results indicated that in nine of twelve cases, the outcome, in terms of significance, from the analysis of the

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1. Macarov, D. Work patterns and satisfaction in an Israeli kibbutz. A test of Herzberg hypothesis. Personnel Psychology, 1972, 25, 3, 483-495.
 2. French, E.B., Metersky, M.L. and Thaler, D.S. Herzberg two-factor theory: Consistency versus method dependency. Personnel Psychology, 1973, 26, 369-375.

written data method matched the outcome from the oral data analysis. Achievement, work itself and responsibility were identified as motivators while company policy and administration were identified as a hygiene factor. The important finding is that it is possible to replicate Herzberg's original results by controlling crucial aspects in the experimental process.

Karp and Nickson (1973)¹ tested the motivator - hygiene theory as a predictive pool for job turnover. A sample of 50 black working poor was randomly selected from department of commerce - subjects were asked to recount two critical incidents describing a happy and an unhappy work experience, according to Herzberg's methodology. Results indicated that subjects perceived motivators as a source of satisfaction and hygienes as a source of dissatisfaction. Motivator deprivation was found to be positively correlated with the number of jobs held, and the absence of motivator on the job was found to be a significant factor in job turnover.

Dyer and Parker (1975)² tested the intrinsic and extrinsic dichotomy by taking a survey of randomly selected 200 members of American Psychological Association. Respondents were asked to classify 21 outcomes as either intrinsic, extrinsic

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1. Karp, H.B. and Nickson, J.W. Motivation-hygiene deprivation as a predictor of job turnover. Personnel Psychology, 1973, 26, 377-384.
 2. Dyer, L. and Parker, D.F. Classifying outcomes in work motivation research. An examination of the intrinsic-extrinsic dichotomy. Journal of Applied Psychology, 1975, 60, 4, 455-458.

or both. The results indicated that respondents defined intrinsic outcomes as those deriving from the job itself and indicated the extrinsic outcomes as those derived from the context of the job.

(b) Studies concerned with overall job satisfaction.

Halpern (1966)¹ investigated the contribution of motivator and hygienic factors to overall job satisfaction. Ratings of 4 motivator job aspects, 4 hygiene job aspects and overall job satisfaction were obtained over 93 male subjects. Results showed that the subjects were equally well satisfied with both the motivator and hygiene aspects of their jobs and that motivators contributed significantly more to overall satisfaction than did the hygienic factors.

Weissenberg and Gruenfeld (1968)² investigated the relationship between motivator and hygiene variables to job involvement. Subjects were 96 civil service supervisors. The results indicated that motivators but not hygiene correlated with job involvement. The total motivator satisfaction scores accounted for considerably more variance in overall job satisfaction than did hygiene variables.

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1. Halpern, G. Relative contributions of motivator and hygiene factors to overall job satisfaction. Journal of Applied Psychology, 1966, 50, 563-566.
 2. Weissenberg, P. and Gruenfeld, L.W. Relationship between job satisfaction and job involvement. Journal of Applied Psychology, 1968, 52, 469-473.

(c) Studies concerned with the concept of occupational level.

Freidlander (1964)¹ compared the importance of intrinsic and extrinsic factors among low - medium and high status groups and between white-collar and blue-collar occupational groups. 1468 employees were used as subjects. Results indicated the task centered opportunities for self-actualization were of prime importance to white collar group only, while the social environment was paramount value to blue-collar.

Bloom and Barry (1967)² tested the two - factor theory on black-blue collar employees. They administered 40 item questionnaire to 85 black-blue collar employees. The results showed that hygiene factors were more important to blacks, consistent with Herzberg's observation that hygiene needs must be met before motivators became operative.

O'Reilly and Roberts (1973)³ examined the job response patterns of white and nonwhite females across three occupational levels. The total 69 white and 70 non-white

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1. Freidlander, F. Importance of work versus non-work among socially and occupationally stratified groups. Journal of Applied Psychology, 1964, 48, 388-392.
 2. Bloom, R. and Barry, J.R. Determinants of work attitudes. Journal of Applied Psychology, 1965, 49, 446-451.
 3. O'Reilly, C.A. and Roberts, K.H. Job satisfaction among whites and non-whites: A cross cultural approach. Journal of Applied Psychology, 1973, 57, 3, 295-299.

samples were compared. Results indicated that whites were more satisfied with their jobs than were non-whites. At the lowest occupational levels clerical personnel and non-whites were less satisfied than the whites. Non-whites were concerned with the social factors of their jobs, while whites along with these with pay and promotional opportunities.

Smith, Smith and Rollo (1974)¹ extended the convergent and divergent validity of two factor theory to compare factor structure for black and white employees. 212 whites, 107 blacks and 110 randomly selected bank employees were used as subjects. Results indicated that bank employees had the highest job satisfaction followed in order by civil service white and black employees.

(d) Studies concerned with importance of job factors.

Singh and Wherry (1963)² studied 200 factory workers of metal goods manufacturing company. Each worker was asked to grade 10 job factors assigning a score of ten to the most important down to a score of one for the least important. The factors of job security, adequate earning, adequate personal benefits, opportunity for advancement were judged the most

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1. Smith, P.C., Smith, D.W. and Rollo, J. Factors structure for blacks and whites of the job descriptive index and its discrimination of job satisfaction. Journal of Applied Psychology, 1974, 59, 96-99.
 2. Singh, T.N. and Wherry, R.J. Ranking of job factors by workers in India. Personnel Psychology, 1963, 16 1, 29-33.

important than the factors of working condition, hours of work, good supervisors, opportunity to learn the job.

Jurgensen (1970)¹ studied 3,700 men and women. Each subject was asked to rank 10 job factors in order of their importance. Results indicated that job security, advancement, type of work and feeling pride in the company, pay, congenial co-workers and considerate supervisors were ranked high, whereas working conditions, employees benefits were ranked as least important.

Mukherjee (1970)² tested that hygiene factors in general would be assigned higher ranking than motivators. Subjects were 100 male semi-skilled workers. He followed Herzberg methodology. Results showed that pay, opportunities for advancement job security were the first three most important job factors. Benefits and working hours were ranked least important.

(e) Studies concerned with Mental - Health concept.

Hamlin and Nemo (1962)³ studied 80 schizophrenics both unimproved and former patients, and used 50 students as

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1. Jurgensen, F. Selected factors which influence job preference. Journal of Applied Psychology, 1970, 31, 553-564.
 2. Mukherjee, B.N. A factor analytic study of job satisfaction. Indian Journal of Industrial Relations, 1970, 4, 429-439.
 3. Hamlin, R.M. and Nemo, R.S. Self-actualization in choice scales of improved schizophrenic. Journal of Clinical Psychology, 1962, 18, 51-54.

a control group. Results showed that positive mental health primarily depends on the development of orientation toward self-actualization, achievement, responsibility and goal directed efforts. Improved schizophrenics obtained higher motivators and lower hygiene scores than unimproved. College students obtained higher motivators and lower hygiene scores than either of the two schizoid groups.

Graglia and Hamlin (1964)¹ studied 80 college students. They employed a procedure of interposing tasks between before and after measures of motivation. The effect of success at successful task was to increase approach motivation. Giving tasks a contextual relationship the attempt to improve motivation, however, reversed the reaction to one of avoidance feature activities. Both of these findings are in accord with Motivation - Hygiene approach to mental health.

Haywood and Dobbs (1964)² measured the attitudes of 100 eleventh and twelfth grade students in public high school toward tension inducing situations. They found that there was a significant tendency for subjects who were high in

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1. Graglia, A. and Hamlin, R. Effect of effort and task orientation on activity preference. Paper presented at Eastern Psychological Association Meeting, Philadelphia, 1964.
 2. Haywood, H.C. and Dobbs, V. Motivation and anxiety in high school boys. Journal of Personality, 1964, 32, 371-379.

motivation orientation to be high in approach motivation. Those high in hygiene orientation were also high in avoidance motivation.

From the above discussion it appears that motivators and hygienes are two different factors. The absence or lack of satisfaction may not lead to presence of dissatisfaction. One single motivating factor can either lead to job satisfaction or job dissatisfaction.

STUDIES PARTIALLY SUPPORTIVE OF THE
TWO FACTOR THEORY

Studies partially supportive of the two factor theory are subgrouped as:

- (a) Studies concerned with the level of occupation.
 - (b) Studies concerned with the concept of uni-dimensionality.
 - (c) Studies concerned with the overall job satisfaction.
- (a) Studies concerned with the level of occupation:

Gruenfeld (1962)¹ studied 52 industrial supervisors at three levels. The purpose of his study was three-fold:

1. Gruenfeld, L.W. A study of motivation and industrial employees. Personnel Psychology, 1962, 15, 303-314.

to identify the order in which 18 job characteristics are preferred by supervisors, to relate these preferences to different companies, and to relate preferences for job characteristics to personal development, promotion and the desire for personal trait differences among supervisors. Results indicated that the most preferred characteristics were those concerning personal development and promotion. The least preferred job characteristics were related to working conditions, self assurance, supervisory quality. Supervisors at the higher occupational level emphasized motivators more than hygienes.

Friedlander (1963)¹ attempted to identify the various categories of workers to whom specific features of the job environment are of great importance. A 17 item - questionnaire was administered to 1000 randomly selected engineers, supervisors and salaried employees. Results in part substantiate and in part contradict the two factor theory. Friedlander identified three factors as the source of job satisfaction. Two factors correspond in part with Herzberg motivators and hygienes, while third factor seems to draw from both motivator and hygiene.

Centers and Bugental (1966)² investigated the strength of intrinsic and extrinsic job-factors over a sample of 692

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1. Friedlander, F. Underlying sources of job satisfaction. Journal of Applied Psychology, 1963, 47, 246-250.
 2. Centers, R. and Bugental, D.E. Intrinsic and extrinsic job motivations among different segments of the working population. Journal of Applied Psychology, 1966, 50, 193-197.

employees of different occupational groups. Results showed that at the higher occupational levels intrinsic job components like opportunity for self-expression, interest, value of work were more valued. At lower occupational levels extrinsic job components like pay, security were more valued. The white-collar workers placed a greater value on intrinsic source of satisfaction. While blue collar workers stressed on extrinsic source of satisfaction. Sex differences are observed in the value placed on self expression and good co-worker. Men placed slightly higher value than women on self-expression in their work. Women placed a higher value on good co-workers than men.

Wolf (1967)¹ investigated the factors influencing the decision of work or not to work over 83 employees and 264 college students. The results showed that employees cited content elements as the most liked aspects of their job and associated content items with satisfaction with the job more than with dissatisfaction. They cited increased satisfaction with content items and also some decreased satisfaction with content items. The college students associated content factors with satisfied feelings.

1. Wolf, M.G. The relationship of content and context factors to attitudes toward company and job. Personnel Psychology, 1967, 20, 121-132.

In Indian context Lahiri and Srivastava (1967)¹ studied 93 middle managers. Subjects were asked to rate both motivator and hygiene factors on both dimensions of satisfaction and dissatisfaction. They found that satisfied and dissatisfied feelings were uni-polar. Managers and workers emphasized different factors as the source of satisfaction and dissatisfaction. The sources of satisfaction were somewhat common for the two groups, but the sources of dissatisfaction were different. While for the workers extrinsic incentives were more important, for the managers intrinsic incentives remained important.

Rothe (1968)² replicated Wolf's study over 432 employees of a manufacturing company and 96 college students. Results indicated that intrinsic factors were more important than extrinsic factors to employees at higher occupational levels. The employees endorsed context elements as contributing to satisfaction on their job. The students endorsed content factors as the most liked and context elements as least like aspects of their job. They associated content items more with satisfaction and context items more with dissatisfaction. But both the groups endorsed context items as both most liked and least liked aspects of the company.

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1. Lahiri, D.K. and Srivastava, S. Determinants of satisfaction in middle management personnel. Journal of Applied Psychology, 1967, 51, 254-263.
 2. Rothe, H.E. Attitudes of various groups employees toward job and company. Personnel Psychology, 1968, 21, 515-522.

(b) Studies concerned with the concept of uni-dimensionality.

Freidlander (1964)¹ tested the assumption of unipolarity continuum of job satisfaction and job dissatisfaction on 80 individuals. He assumed that satisfaction and dissatisfaction are opposite, and one is not the mere negation of the other. Satisfaction and dissatisfaction were found to be independent feelings, intrinsic factors were found to be important both as satisfiers and dissatisfiers. Extrinsic factors were not perceived as important either as satisfiers or dissatisfiers.

Soliman (1970)² tested the assumption of two-factors theory with various methodologies over 98 persons belonging to many occupations. He concluded that Herzberg's theory was correct in one respect that there were two sets of need categories, motivators and hygienes. But re-correlation of responses provided no support for the theory. Satisfaction and dissatisfaction were found to be bipolar and not unipolar.

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1. Friedlander, F. Job characteristics as satisfiers and dissatisfiers. Journal of Applied Psychology, 1964, 48, 388-392.
 2. Soliman, H.M. Motivation - hygiene theory of job attitudes: An empirical investigation and an attempt to reconcile both the one and two-factor theories of job attitudes. Journal of Applied Psychology, 1970, 54, 452-461.

In Indian context Rao (1971)¹ and Rao and Ganguli (1972)² tested the unipolarity of two-factor theory.

Rao (1971)³ tested the applicability of the two-factor theory to 94 females, 60 managers and 60 male clerical employees belonging to a commercial bank. The results partly confirmed and partly rejected the two-factor theory. The results showed that satisfaction and dissatisfaction were two separate and distinct feelings. But contrary to the theory, both motivators and hygienes contributed to both satisfied and dissatisfied feelings. Motivators significantly contributed to dissatisfaction and hygienes contributed more to satisfaction.

Rao and Ganguly (1972)⁴ tested the generality of the two-factor theory of 82 highly skilled personnel. Results showed that satisfaction and dissatisfaction were not opposite

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1. Sarveswar Rao, G.V. Deteriments of job satisfaction in managerial personnel: A test of Herzberg's two-factor theory, Indian Manager, Intrinsic and extrinsic factors in job satisfaction of male clerical employees, Unpublished Manuscript, 1970. Job content and context factors in job satisfaction of female clerical employees, Indian Journal of Social Work, 1971, 5, 58-68.
 2. Sarveswar Rao, G.V. & Ganguli T. Job satisfaction of highly skilled personnel - A test of the generality of the two-factor theory. Indian Journal of Applied Psychology, 1972, 9, 26-31.
 3. Ibid, See footnote No. 1.
 4. Ibid, See footnote No. 2.

poles of the same continuum. But contrary to the two-factor theory both motivators and hygienes contributed to satisfied and dissatisfied feelings.

(c) Studies concerned with overall job satisfaction.

Armstrong (1971)¹ tested two factor theory using Barley and Hangerah's rationale to the occupational level. Ratings on satisfaction and importance of job content and context factors were obtained from 200 engineers and 153 assemblers. The results indicated that context factors were more potent in the overall job satisfaction for the engineers than for the assemblers. For the context factors with the exception of company policy and administration, the relationship was basically similar across the two occupational levels.

Amir and Krausz (1974)² studied 262 students in order to examine aspects of Herzberg's two-factor theory of satisfaction in an academic setting. The aims of study were (a) to identify motivation and hygiene variables in an academic setting, and examination of the relationship between them; (b) identification of factors of importance and satisfaction and examination of

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1. Armstrong, T.B. Job content and context factors related to satisfaction for different occupational levels. Journal of AApplied Psychology, 1971, 55, 57-65.
 2. Amir, Y. and Krausz, M. Factors of satisfaction and importance in an academic setting. Human Relations, 27, 3, 211-223.

the similarity between them. The results did not support Herzberg's notion that gratification of motivation factors contribute principally to the presence of satisfaction whereas non-gratification of hygiene factors creates dissatisfaction. Results indicated a stronger relationship between overall satisfaction and motivators than with hygiene factors, thus supporting the findings of two-factor theory.

Non-supportive Studies -

Studies non-supportive of the two-factor theory are subgrouped as:

- (a) Studies concerned with overall job concept.
- (b) Studies concerned with the concept of performance implications.
- (c) Studies dealing with the desirability concept.
- (d) Studies concerned with the reliability of the critical incident method.
- (e) Studies related to individual differences concept.
- (f) Studies concerned with the level of occupation.
- (g) Studies concerned with the concept of uni-dimensionality.
- (h) Studies concerned with the concept of importance of job factors.

(a) Studies related to overall job satisfaction.

Few of the non-supportive studies investigated the hypotheses of the two-factor theory that deal directly with the relationship between overall job satisfaction and specific job factors.

Ewen, Smith, Hulin and Locke (1966)¹ investigated the several hypotheses pertaining to the two-factor theory. They used 793 male employees as subjects. Results indicated that intrinsic factors were more strongly related to both overall satisfaction and overall dissatisfaction than the extrinsic factors.

Levine and Weitz (1966)² tested the assumption that for people on satisfied end of continuum, motivators were more strongly related to overall satisfaction than the hygienes and vice-versa. He used 91 graduate students as subjects. Findings indicated that intrinsic variables were more important in producing overall satisfaction as well as overall dissatisfaction.

Hinrichs and Mischkind (1967)³ investigated the tenability of the Herzberg et.al. (1959)⁴ hypothesis concerning the satisfier dissatisfier effect on overall job satisfaction. In addition, they also looked at respondent's perceptions of factors which tended to influence their current overall

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1. Ewen, R., Smith, P., Hulin, C. and Locke, E. An empirical test of the Herzberg two-factor theory. Journal of Applied Psychology, 1966, 50, 544-550.
 2. Levine, E.L. and Weitz, J. Job satisfaction among graduate students: Intrinsic versus extrinsic variables. Journal of Applied Psychology, 1968, 52, 263-272.
 3. Hinrichs, J.R. and Mischkind, L.A. Empirical and theoretical limitations of the two-factor hypothesis of job satisfaction. Journal of Applied Psychology, 1967, 51, 191-200.
 4. Herzberg, et. al., Opp. cit.

satisfaction positively, as well as perceptions of factors which tended to influence their satisfaction negatively. 613 technicians were used as subjects. They found that motivators influenced satisfaction positively for the high satisfaction group, while for the low satisfaction group they had equal positive and negative influence. Hygienes acted negatively for the high satisfaction group and positively for the low satisfaction group.

Graen (1968)¹ studied 152 females and 167 males. He found that content variables were more strongly related to overall satisfaction/dissatisfaction than the context variables. Work itself was found to be related to high overall satisfaction. There were differences in overall satisfaction of different groups of employees. In case of males, both work itself and promotion accounted for 12% of the total variance. Similarity in case of females, work itself accounted for 27% of the total variance in satisfaction.

Kosmo and Behling (1969)² studied 84 nurses to test the predictions of the effect of various combinations of perceived levels of motivators and hygienes on overall satisfaction with

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1. Graen, G.B. Testing traditional and two-factor hypotheses concerning job satisfaction: Journal of Applied Psychology, 1968, 50, 551-555.
 2. Kosmo, R. and Behling, O. Single continuum job satisfaction versus duality: An empirical test. Personnel Psychology, 1969, 22, 327-334.

the job. Results indicated that significantly higher levels of overall satisfaction were associated with the higher levels of perceived motivators. The nurses who perceived high levels of both motivators and hygienes were significantly more satisfied than those who perceived low levels of motivators and hygienes.

Gruenfeld and Weissenberg (1970)¹ investigated the relationship between job involvement, field independence and articulation of job satisfaction. 96 Civil service supervisors were used as subjects. Results indicated that for global perceivers, intrinsic and extrinsic satisfactions correlated with each other and also with overall job satisfaction, while for analytical perceivers intrinsic and extrinsic satisfactions were independent and, as expected, only intrinsic satisfaction correlated with overall job satisfaction.

Hubert, Holley and Armenakis (1974)² studied the 62 graduate students. The purpose of this study was to determine the variables related to overall satisfaction with graduate school and to determine the significance of two sets of variables, one set intrinsic and the other set extrinsic to the student's graduate education, in predicting overall

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1. Gruenfeld, L.W. and Weissenberg, P. Field independence and articulation of sources of job satisfaction. Journal of Applied Psychology, 1970, 54, 424-426.
 2. Hubert, S.F., Holley, W.H. and Armenakis, A.A. Graduate student's satisfaction with graduate education: intrinsic versus extrinsic factors. Journal of Experimental Education, 1974, 43, 2, 8-12.

satisfaction. The results indicated that a set of variables intrinsic to graduate students education did not predict overall satisfaction significantly better than a set of extrinsic variables. Herzberg's proposition that intrinsic variables should relate more strongly to overall satisfaction than the extrinsic was not substantiated.

(b) Studies concerned with the concept of performance implication.

Block (1962)¹ studied 81 physically disabled male employees of an electronics subcontractor. He used need for achievement, self acceptance and job satisfaction as the independent variable and quality of production and quantity of production as the dependent variable. He found that (a) industrial performance was positively correlated with need achievement but not correlated with self-acceptance; (b) job satisfaction correlated with industrial performance only under some conditions of need achievement and self-acceptance.

Paul, Robertson and Herzberg (1969)² reported a number of job enrichment studies which tried to measure job satisfaction and performance for both the experimental and

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1. Block, J.R. The motivation satisfaction and performance of industrial workers (abstracts). American Psychologists, 1962, 17, 35-38.
 2. Paul, P.J., Robinson, R.B., Herzberg, F. Job enrichment pays off. Harvard Business Review, 1969, March-April, 61-78.

control groups. Managers were used as subjects, 15 acted as experimental groups and 29 as control groups. Findings indicated increased productivity as a result of introducing motivators into a job under constant hygiene conditions, where previous changes in hygienes did not produce any productivity changes.

Schwab and Cummings (1971)¹ investigated the relationship between satisfiers (dissatisfiers) and performance effects. A total of 80 male staff and managerial personnel responded to a questionnaire designed to obtain information about work attitudes. Results showed that performance effects were found to be generally positive in favourable sequences, generally neutral in unfavourable sequences. However, no support was found for the hypothesis that 'motivators' are more frequently associated with positive performances effects than 'hygienes' when differences in sequences were accounted for. In favourable sequences, both motivators and hygienes were significantly associated with positive performance effects. In unfavourable sequences, neither motivators nor hygienes were significantly associated with performance effects.

1. Schwab, D.P., Devitt, H.W. and Cummings, L.L. A test of the adequacy of the two-factor theory of job satisfaction. Personnel Psychology, 1970, 23, 55-66.

(c) Studies concerned with the social desirability concept.

Dunnette (1965)¹ made an attempt to determine what people felt were important contributors to their feelings of extreme satisfaction and dissatisfaction in their jobs. Herzberg's 143 pairs of statements were judged for social desirability. Results showed that means for motivator factors were greater in satisfying situations than in dissatisfying situations, while the means for hygiene factors were higher in dissatisfying situations rather than satisfying situations. However, in ranking job dimension mean separately for satisfying and dissatisfying situations, there was indication that motivator factors were more important than hygiene factors in both satisfying and dissatisfying situations.

Grigalunas and Herzberg (1971)² studied 81 individuals to test whether irrelevancy is a crucial variable in determining the inconsistent results between motivator - hygiene methodology and rating scale methodologies by analysing the one set of data on the same subjects. Results indicated that subjects rated the general importance of the item to them rather than the importance of the item to the incident they have described.

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1. Dunnette, M.D. Factor structure of usually satisfying and unusually dissatisfying job situations for six occupational groups. Paper read at Midwestern Psychological Association, Chicago, April 29, 1965.
 2. Grigalunas, B.S. and Herzberg, F. Relevancy in the test of motivation hygiene theory. Journal of Applied Psychology, 1971, 55, 73-79.

Recent studies that directly deal with the issue of social desirability and defensive responding are by Bobbit and Behling (1972)¹ and Toby D. Well (1974)².

Bobbit and Behling (1972)³ studied three groups of supervisors. With a view to test the effects of varying opportunities to 'look bad' on the patterning of motivators and hygiene responses. The results showed no significant differences between the data obtained under both the conditions. They concluded that individuals attribute satisfaction to their own actions and dissatisfaction to those of others.

Toby D. Well (1974)⁴ investigated the Vroom's hypothesis that Herzberg results may be attributed to defensive processes within the individuals. 77 male employees were used as subjects. Findings indicated that Herzberg's results are an artifact of ego defensive processes within individuals. The higher the individuals social desirability score, the greater is his tendency to attribute his dissatisfaction to hygiene factor rather than to motivator, but individuals with higher social desirability scores did not show a stronger tendency compared to individuals with lower social desirability scores to attribute their satisfaction to motivator rather than hygiene factors.

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1. Bobbit, H.R. and Behling, O. Defense mechanism as an alternative explanation of Herzberg's motivation - hygiene results. Journal of Applied Psychology, 1972, 56, 1, 24-27.
 2. Wall, D. Taby, Ego defensive as a detriment of reported differences in sources of satisfaction and dissatisfaction, Personnel Psychology, 1974, 5, 115-118.

(d) Studies concerned with the reliability of the critical incident method.

Hinton (1968)¹ assessed the reliability of motivation - hygiene theory on a sample of college students. He used similar sequences of events methodology as used by Herzberg. Results did not indicate the relationship between motivator and hygiene factors and high and low sequences. He obtained 52 percent motivator factors and 48 percent hygiene factors in the high sequences and 44 percent motivator factors and 56 percent hygiene factors in the low sequences.

(e) Studies related to the concept of individual differences.

Dunnette, Campbell and Hake1 (1967)² studied 133 executives, 89 clerks, 44 secretaries, 129 engineers, 49 salesmen and 92 army personnel to find out the highly satisfying and dissatisfying job situations. Results indicated that three Herzberg's motivators and one hygiene acted as both satisfiers and dissatisfiers. Some individuals achieved job satisfaction from job content, others from context and others from combinations of content and context. Some factors contributed to both satisfaction and dissatisfaction.

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1. Hinton, B.L. An empirical investigation of the Herzberg methodology and two-factor theory. Organizational Behaviour and Human Performance, 1968, 3, 286-309.
 2. Dunnette, M.P., Campbell, J.P. and Hake1, M.D. Factors contributing to job satisfaction and job dissatisfaction in six occupational groups. Organizational Behaviour and Human Performance, 1967, 2, 143-174.

Schwab and Heneman (1970)¹ reported individual differences in job satisfaction and dissatisfaction. Descriptions of job related sequence of events were obtained for favourable and unfavourable employment experiences from 85 supervisors. Results showed that two motivator factors - "achievement" and "recognition" were mentioned by over 25 percent of all supervisors in describing both favourable and unfavourable sequences, despite the fact that in aggregate analysis both factors were mentioned more often in favourable rather than in unfavourable sequences.

(f) Studies concerned with the level of occupation.

Pestonjee and Basu (1970)² studied 50 public and 30 private sector executives in the Herzberg framework. Results indicated that the motivators were the prime source of satisfaction as well as dissatisfaction. No significant differences were found between the managers of the two sectors in the overall satisfaction and dissatisfaction, although differences existed regarding the contribution of motivators and hygienes to

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1. Schwab, D.P., and Heneman, H.G. Aggregate and individual predictability of the two-factor theory of job satisfaction, Personnel Psychology, 1970, 23, 55-66.
 2. Pestonjee, D.M. and Basu, G. A study of job motivations of Indian executives. Indian Journal of Industrial Relations, 1972, 8Q 3-16.

satisfaction and dissatisfaction. For public sector managers, motivators contributed more towards job satisfaction, whereas for private sector these contributed more to dissatisfaction.

Rao and Ganguli (1971)¹ investigated the determinants of job satisfaction and relative contribution of motivators and hygienes to the perceived importance of 74 supervisors and 74 clerks. Results showed that both motivators and hygienes were related to need fulfilment and need deficiency. Supervisors were found to be more satisfied than clerks. Both motivators and hygienes were perceived as important. Similar findings were obtained by Rao and Ganguly (1971)² studying 82 highly skilled and 95 skilled employees.

Rao and Rao (1973)³ tested the generality and validity of the two-factor theory on Indian Population representing three occupational levels. They used 113 supervisors, 137 clerks, and 250 skilled workers as subjects. The results indicated that motivator hygiene dichotomy could not find any support. Same job factors could be considered as motivators as well as hygienes. Both motivators and hygienes contributed to overall satisfaction.

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1. Sarveswara Rao, G.V. and Ganguly, T. Perceived need satisfaction and importance of supervisory and clerical personnel. Indian Journal of Psychology.
 2. Sarveswara Rao, G.V. and Ganguly, T. A study of perceived need satisfaction and importance of highly skilled and skilled personnel. Indian Journal of Industrial Relations, 1971, 6, 227-287.
 3. Sarveswara Rao, G.V. and Rao Gangpathi. A study of some factors contributing to satisfaction and importance of industrial personnel. A test of the two-factor theory. Indian Journal of Industrial Relations, 1973, 9, 234-260.

(g) Studies related to Uni-dimensionality of job attitude.

Many of the non-supportive studies of the two-factor theory tested the Uni-dimensionality of the theory.

An attempt has been made by Ewen (1964)¹ to test the generality of the theory on 1,021 full time life insurance agents. Subjects were divided into experimental and cross - validation group. Results indicated that six factors emerged. Two of three hygienes acted like motivators in both the groups. One acted like a motivator in the corss-validation sample and both a motivator and hygiene in the experimental sample. Recognition, one of the two motivators, caused both satisfaction and dissatisfaction.

Ott (1965)² administered a 115 - item job attitude questionnaire to 350 telephone operators and factor analysed their responses. Results indicated that the sources of satisfaction and dissatisfaction were not independent, and that the distinction between the factors had no usefulness for summarizing satisfaction and dissatisfaction of the subjects.

Wernimont (1966)³ obtained responses to both forced choice and free choice items from 52 accountants and 82 engineers.

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1. Ewen, R.B. Some determinants of job satisfaction: A Study of the generality of Herzberg's theory. Journal of Applied Psychology, 1964, 48, 161-163.
 2. Ott, C.D. The generality of Herzberg's two-factor theory of motivation, Unpublis-hed Ph.D. Thesis. The Ohio State University, 1965.
 3. Wernimont, P.F. Intrinsic and extrinsic factors in job satisfaction. Journal of Applied Psychology, 1966, 50, 41-50.

Results indicated that for both the groups intrinsic factors caused more satisfaction than the extrinsic factors. For both the groups intrinsic factors contributed dissatisfaction.

Burke (1966)¹ tested the Uni-dimensionality of the motivator - hygiene concepts on 187 college students, 48 females and 139 males. Results indicated that subjects of both the groups endorsed more intrinsic items than extrinsic ones when describing both satisfactory and dissatisfactory situations. He concluded that motivators and hygienes were neither Uni-dimensional nor independent constructs.

Graen (1966)² studied 153 professional engineers who were asked to rate job factors according to their importance. The results indicated that the dimension proposed by Herzberg when represented as items and related by students did not result in homogenous grouping into factor analytic sense. Many of the items derived from Herzberg categories appeared not to belong together.

House and Wigdor (1967)³ used Herzberg's data to show that achievement and recognition were seen by most respondents as more of a dissatisfier than relations with superiors on working

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1. Burke, R.J. Are Herzberg's motivators and hygienes Uni-dimensional? Journal of Applied Psychology, 1966, 50, 317-321.
 2. Graen, G.B. Addendum to an empirical test of the Herzberg two-factor theory. Journal of Applied Psychology, 1966, 50, 551-555.
 3. House, R.J. and Wigdor, L.A. A Herzberg's dual factor theory of satisfaction and motivation, A review of the evidence and criticisms, Personnel Psychology, 1967, 20, 369-389.

conditions. They found achievement as third major dissatisfier. They concluded that data do not support the satisfier-dissatisfier dichotomy.

Lindsay and Gorlow (1967)¹ studied 270 professional and non-professional personnel. The subjects were asked to recall job factors and than attitudes they produced. An analysis of variance showed that 75 percent of the variance in satisfaction accounted for by motivators and hygienes. They concluded that effect of motivators and hygienes were not independent of one another, and that motivators contributed more to job satisfaction than to hygienes.

Hulin and Smith (1967)² analyzed the contribution of different variables to overall satisfaction and dissatisfaction; and to examine the differences between presence and absence of different variables in their effects on worker's judgement of job. 670 employees were used as subjects. Results indicated that both motivators and hygienes acted as satisfiers and dissatisfiers. Satisfaction and dissatisfaction were found to be qualitatively different.

Graen and Hulin (1968)³ used the same technique (Hulin and Smith) to test the hypotheses of two-factor theory and

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1. Lindsay, C.A. and Garlow, L. The Herzberg theory: A critique and reformulation. Journal of Applied Psychology, 1967, 51, 254-265.
 2. Hulin, C.L., Smith, P. An empirical investigation of two implications of the two-factor theory of job satisfaction. Journal of Applied Psychology, 1967, 51, 396-402.
 3. Graen, G.B. and Hulin, C.L. Addendum to an empirical investigation of two implications of the two-factor theory of job satisfaction. Journal of Applied Psychology, 1968, 52, 341-342.

traditional theory. Results supported the hypotheses of traditional theory at the expense of the two-factor theory. Results indicated that 'satisfier' and 'dissatisfier' variables contributed to both satisfaction and dissatisfaction.

Waters and Waters (1969)¹ correlated the degree of overall satisfaction, overall dissatisfaction and overall satisfaction dissatisfaction scale with measures of several aspects of work situations. A job attitude questionnaire was administered to 165 female employees. Results showed that motivators contributed to both satisfaction and dissatisfaction, and hygiene factors were also found to be related to both satisfaction and dissatisfaction. The correlation between overall satisfaction and overall dissatisfaction offered little in support of the contention of the two-factor theory that satisfaction and dissatisfaction are qualitatively different from each other. Hygiene factors were mentioned more often as reasons for positive feelings than negative feelings.

Waters and Roach (1971)² tested the King (1970)³ five versions of the two-factor theory in that overall satisfaction and overall dissatisfaction were assessed on separate scales, a wide range of intrinsic and extrinsic job factors were investigated.

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1. Waters, L.K. and Waters, G.W. Correlates of job satisfaction and job dissatisfaction among female clerical workers. Journal of Applied Psychology, 1969, 24, 135-145.
 2. Waters, L.K. and Roach, D. The two-factor theory of job satisfaction: Empirical test for four samples of insurance company employees. Personnel Psychology, 1971, 24, 697-705.
 3. King, N. Clarification and evaluation of two-factor theory of job satisfaction. Psychological Bulletin, 1970, 74, 18-31.

Results showed that all intrinsic variables contributed more to job satisfaction than to job dissatisfaction, and all extrinsic variables combined, contributed more to job dissatisfaction than to job satisfaction. In three of the samples, the intrinsic job factors correlated with both satisfaction and dissatisfaction than did the extrinsic job factors.

Hulin and Waters (1971)¹ studied 160 non-supervisors female employees. They found that intrinsic job factors accounted for a greater proportion of the variance of overall satisfaction, but extrinsic variables did not account for a greater proportion of the variance of overall dissatisfaction.

Kotle and Supe (1972)² undertook a study to explore the factors that were associated with both job satisfaction and dissatisfaction of 100 village level workers. The results showed that factors of satisfaction and dissatisfaction were not distinct and separate. Factors like work itself, recognition, interpersonal relationship, advancement and salary emerged as both satisfiers and dissatisfiers. Both motivators and hygienes were found to contribute both to satisfaction and dissatisfaction and thus, they were not unidirectional in their effects.

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1. Hulin, C.L. and Waters, L.K. Regression analysis of three variations of the two-factor theory of job satisfaction. Journal of Applied Psychology, 1971, 55, 211-217.
 2. Kotle, N.V. and Supe, S.V. Determinants of job satisfaction of village level workers: A test of Herzberg's dual factor theory. Indian Journal of Psychology, 1972, 47, 4, 405-413.

(h) Studies related to the importance of job factors.

A number of investigators tested the concept of importance of job factors in two-factor theory.

Bose (1951)¹ studied the effect of occupational differences on the working of different job factors on 53 workers, 50 clerks and 30 teachers. The rank order obtained by interviewing workers, teachers and clerks were compared. The results showed that although there was somewhat difference in ranking, the first two items were the same for the different groups. The clerks ranked security as the most important and salary as second, while teachers and workers the order was reversed.

Lahiri (1965)² observed if there was any difference between the perceived importance attributed to various job factors by 52 government and 88 non-government clerical employees. The results indicated that with respect to hierarchy of job factors, salary and security were considered the two most important factors associated with the job, opportunity for advancement, nature of supervisors were the items which had ranked as lower importance than security and salary.

Lahiri and Chaudhri (1966)³ investigated the differences in the relative importance of different job factors as perceived by

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1. Bose, S.K. Man and his work. Indian Journal of Psychology, 1951, 26, 1-20.
 2. Lahiri, D.K. Perceived importance of job factors by government and non-government employees. The Indian Journal of Psychology, 1965, 40, 37-48.
 3. Lahiri, D.K. and Chaudhri, P.K. Perceived importance of job factors by technical and non-technical employees. Personnel Psychology, 1966, 19, 287-296.

by 50 technical and 50 non-technical employees. Each employee was asked to rank the job factors in the order of importance. Results indicated that there was no overall difference between the perception of technical and non-technical employees in regard to the relative importance of different job factors. Salary, security, responsibility, promotion were perceived as the first five important job factors by every sub-group except in few instances.

Storcevich (1972)¹ studied the effect of occupational level on the judged importance of job factors as source of job satisfaction and job dissatisfaction. Three occupational levels of employees, 155 first line managers, 182 middle managers 181 professional employees judged the importance of 18 job factors as contributing to satisfaction and dissatisfaction. Results showed that occupational level did not affect the judged order of importance of job factors for either job satisfaction or job dissatisfaction. The lowest position in managerial hierarchy ranked the job factors in a similar order of importance for both job satisfaction and dissatisfaction as done by professional employees. Job content factors were judged most important, while job context factors were judged least important.

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1. Storcevich, M.M. Job factors importance for job satisfaction and dissatisfaction across different occupational levels. Journal of Applied Psychology, 1972, 56, 6, 467-471.

Kulkarni (1973)¹ reported a study aimed at knowing the relative importance of some job factors for the middle class employees with particular reference to the higher occupational groups of white-collar employees. 80 employees were used as subjects. Results indicated that factors such as adequate earning and job security extrinsic in nature and yet judged as most important. Type of work, opportunity for advancement, to learn the job were the factors that came next in importance.

Weaver (1975)² investigated the racial dimension of worker's preferences among the job characteristics. The objective of his study was to compare the job preferences of black and white workers and to determine if differences exist for sub-groups. Results indicated that there was no significant difference between the groups with respect to two of the job characteristics. Black workers were twice as likely to prefer high income but only half likely to prefer work as important and giving a feeling of accomplishment.

Thus it appears from the above discussion that Herzberg's motivation - hygiene dichotomy does not find a uniform support. It is not necessary that motivators will always give rise to the feelings of dissatisfaction only. One single motivating factor can lead either to satisfaction or dissatisfaction.

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1. Kulkarni, A.V. Motivational factors among middle class employees. Indian Journal of Applied Psychology, 1973, 10, 2, 67-69.
 2. Weaver, C.N. Black and white differences in attitudes toward job characteristics. Journal of Applied Psychology, 1975, 6, 4, 438-442.

An overall view.

The two factor theory has been subjected to several criticisms. Motivation - Hygiene theory has been widely criticized on the grounds that it is method-bound. The basic methodology, essentially the critical incident technique is subject to criticism for several reasons. The critics assert that the support this theory receives is simply a result of an artifact involved in this method. It is possible that the differences obtained between the stated source of satisfaction and dissatisfaction items stem from the defensive processes within the individual respondent. People are more likely to attribute the causes of satisfaction to their own achievements and accomplishments on the job. On the other hand, they are likely to attribute their feelings of dissatisfaction not to their personal inadequacies or deficiencies, but to the factors in the work environment. The Methodology does not control either the number of incidents from a given subject, or the number of job factors mentioned within a given incident.

Another criticism that centers around the motivation - hygiene theory consists in the overlapping of factors. The categorization of factors into motivators and hygienes requires accuracy. Motivation - Hygiene theory is not only method bound, but it is time bound also. Since it is not based on the current satisfaction with the present job-situation, there is no control over the time factor.

Moreover, the two-factor theory does not provide for differences among people in how responsive they are likely to be to 'enriched' jobs. It was assumed that motivating factors potentially could increase the work motivation of all employees. Yet it appeared that some individuals are more likely to respond positively to an enriched, complex job than are others. The theory provides no help in determining how such individual difference phenomena should be dealt with - either at the conceptual level, or in the actual applications.

The theory in its present form does not specify how the presence or absence of motivating factors can be measured for existing jobs. This increases the difficulty of testing the theory in on-going organisations. Other criticisms are that the theory lacks any reliable or valid data. It is an oversimplification of the relationship between motivators and hygienes, and sources of satisfaction and dissatisfaction. Two-factor theory does not make it clear as to what sort of statistical relationship exist between the motivators and hygienes on one hand and satisfaction and dissatisfaction on the other hand. It can be concluded that as a whole, the design, rationale and findings of the non-supportive studies do not provide a strong case for refuting motivation - hygiene theory. The studies conducted seems to have one or the other of the following drawbacks:

1. An apparent lack of success in developing an appropriate technique to measure, or demonstrate bi-dimensionality of job

feelings as an alternative to Herzberg's critical-incident approach. Most of the studies have relied upon the rating scale score-often a one item scale to assess complex motivational phenomena.

2. The sample used by some of the studies are too small to be valid for a larger population. Some of the samples used lack the representativeness.

3. Some of the above studies have failed to account for overall satisfaction. It is quite possible that the measure of satisfaction and dissatisfaction may not be the true measure of these.

4. Conclusions about the validity of motivation-hygiene theory were made by testing hypotheses that could not be logically derived from this theory (e.g., 'overall' satisfaction and 'importance' hypotheses).

5. Subjects used in these studies are mostly drawn from a single occupation. Investigators have not taken in to account the diverse occupational groups. People from different occupational groups may have different experiences, hence different sources of satisfaction and dissatisfaction.

6. Since most of the studies have used Herzberg's classificatory system to measure satisfaction and dissatisfaction, it is once again possible that there may be overlapping of items.

7. The results of several studies are inconclusive and can be interpreted in alternative ways that are not unsupportive of motivation-hygiene theory.

It appears from the results of the studies reviewed here that because of numerous misinterpretations of the motivation-hygiene theory, the general weakness in methods, and the frequent misinterpretations of the results, the studies reviewed offer little challenge to the validity of the theory. In fact, the results of some of the studies such as Ewen (1964)¹, Hulin and Smith (1966)², etc. support the motivation-hygiene theory. The studies illustrate that the findings in the direction of the original study (Herzberg et al 1959) are obtainable through a variety of methodologies.

In spite of all the criticism it can be concluded that Herzberg's two-factors theory has retained its utility and viability. The theory forms the basis of research in various organizations. Many of the management training and work motivation-programmes have been instituted on the basis of this theory. It has led to many fruitful arguments. The motivation-hygiene theory makes statements about the nature of man. It predicts that he operates on two equally important basic needs: the need to grow and the need to avoid pain. The two needs are served by independent and different group of factors. It is obvious that an overemphasis on hygiene, to the exclusion of motivators cannot result in superior performance, while ignoring hygienes and concentrating solely on the motivators will lead to dissatisfaction. The distinction between intrinsic and extrinsic factors has been a major contribution of the theory. The theory has demonstrated its ability to identify and clarify the underlying sources of job attitudes. The research generated by the motivation-hygiene theory makes it one of the leading topics for investigation in the field of organizational and social psychology.

1. Ewen, R. op. cit.

2. Hulin, C. & Smith, P. op. cit.

CHAPTER - IV

THE EXTENSION OF THE TWO - FACTOR THEORY TO EDUCATIONAL ORGANIZATIONS - THE PROPOSED RESEARCH PROBLEM.

A theoretical discussion of Herzberg's two - factor theory of job satisfaction revealed that the theory has potentiality of extension to various types of social organizations. Herzberg maintained that his theory relates to satisfaction in general and is not limited only to job satisfaction. Some researchers have tested the theory in settings other than industrial. Fantz (1962)¹ applied it to problems of mental hygiene, while Levine and Weitz (1968)², Yebuda Amir and Mosbe Krausz (1974)³ and Hubert, Holley and Armenakis (1974)⁴ applied the theory to study the satisfaction of graduate students in educational organizations.

Motivation - Hygiene theory states that there are two sets of factors which contribute differently to the satisfaction and dissatisfaction on the job - that is extrinsic and intrinsic factors. Intrinsic factors are in the content of the job and extrinsic factors are in the context of the job. Intrinsic factors (Motivators) give rise to satisfaction, while extrinsic factors (hygienes) contribute to dissatisfaction. The research

1. Fantz, R. op. cit.

2. Levine, E.L. and Weitz, J. op. cit.

3. Amir, Y. and Krausez, M. op. cit.

4. Hubert, S.F., Holley, W.H. and Armenakis, A.A. op. cit.

evidence has shown that the basic motivating factors leading a man to work for long hours under unsatisfactory conditions are not the factors related to the context or the environment of the job such as good pay, security, good interpersonal relationship, working condition, but are the factors related to the content of the job. The effective motivators are more closely related to the job itself. These are based on the feelings of accomplishment, achievement, growth and advancement. The same factors are likely to be operative in case of students who opt for higher education. It is believed that in the educational setting so long as students constitute the human element the problem of both satisfaction and dissatisfaction will remain germane and both motivators and hygienes shall be operative. Factors relating to the students themselves may be termed as 'motivators', whereas factors relating to the academic environment in which they have to learn and grow may be termed as hygienes.

Extending the argument of the two - factor theory to the educational organisations it may be hypothesized that the intrinsic and extrinsic factors can cause the feelings of encouragement and discouragement among students. Intrinsic factors or motivators cause the feelings of encouragement, whereas extrinsic or hygienes can cause the feelings of discouragement. Motivators within a student may be identified in terms of need for achievement, interest in education, success, personal growth, need for recognition, self interest etc., whereas hygienes could be identified in terms of interpersonal relationship

among students, and teachers, college policies and practices, college climate, employment opportunities, status and incentives given to students in the form of fellowships etc.

The aim of the present study at this stage is to identify motivators and hygienes in academic setting and how these operate. Another long term objective is to relate these factors i.e. motivators and hygienes with overall performance among students in order to determine the differential role of these. The present research proposes to test the following hypotheses.

1. A student decision to go for higher education is the function of both intrinsic (motivator's) and extrinsic (hygienes) factors.
2. Motivators are different from hygienes. These are two different set of factors. One is not the obverse of the other.
3. Motivators contribute more to overall growth and satisfaction than the hygienes.

METHOD

SAMPLE

The M. Phil level dissertation is proposed to be a pilot study, hence a small though representative sample of 70 students were selected from Jawaharlal Nehru University with the help of random number table. These respondents were taken

from the different schools namely, School of Life Sciences, School of Social Sciences, School of Languages and School of International Studies.

TOOL AND PROCEDURE

A questionnaire was constructed using the factors envisaged by Herzberg et al., tried, edited and used as tool of data collection. It consists of 11 questions. Most of the questions are open ended. The categorization of various items into motivators and hygienes followed the scheme presented by Herzberg et. al. (1959)¹. Out of the 11 questions in the questionnaire 6 are related to motivators and 5 are related to hygienes. Respondents were asked to describe aspects of their educational life that were conducive to satisfaction or dissatisfaction in the general academic setting.

The questionnaire has two sections. The first section has information items such as sex, age, family status etc. The second section included questions on eleven motivators and hygiene variables covering the areas the interest in education, social relations among students and teachers, college policies and practices, college climate growth in skills, recognition achievement etc. A copy of the questionnaire is included in Appendix I. Overall satisfaction index is formed by correlating each motivator and hygiene score with the total score.

1. Herzberg, F. Mansner, B., & Snyderman, B. op. cit.

STATISTICAL ANALYSIS

A sophisticated analytical design was avoided at this stage, considering the limited nature of the sample and time constraints. M. Phil level analysis includes only the use of frequency percentage, chi - square and correlational analysis techniques.

CHAPTER - V

RESULTS AND DISCUSSION

The response to various items in the questionnaire are grouped into various categories and the percentages and chi - square values computed. The Table I includes percentage distribution of responses on choice for college education.

TABLE - I

Percentage Distribution of Responses on
Choice for College Education.

	Responses:	Percentages:
a)	to study	54.4
b)	to get job	35.5
c)	to pass time	10.0

As shown in the Table I study is the most dominant choice which motivates students to go for the college education. 54.4 per cent of students enunciate the reason for going to college education as the desire to learn and to satisfy their intellectual curiosity. 35.7 per cent of students expressed that getting a job is the main reason of going for higher education. They felt that college education should facilitate the process of getting jobs in the society. Only 10 per cent of students expressed that they come to higher education to have an experience of the university life or to pass time. The chi-square value for various response categories is 6.91, significant

at .05 level of significance.

Table 2 gives distribution of types of pressure effective in student's decision to go for higher education.

TABLE - II

Percentage Distribution of Responses on Pressures:

	Responses:	Percentages:
a).	Mainly Personal	60.0
b)	Forced by Parents	7.5
c)	Both	32.5

It appears from the data that 60 percent of the students have joined the college education because of their personal interest, against a smaller percentage who admitted of parental pressure. Self interest is an important motive which impells them to continue their education. However, 32.5 percent of the students stated that it is a sort of mixed of pressure and their personal interest which operates in their decision of joining the college. Parents want them to study and boost their aspiration level while at the same time students felt it beneficial in their own interest. The chi-square value is 6.31 significant at .05 level, indicating that the response categories differed from each other.

TABLE - III

Percentage Distribution of Response on Role
of Higher Education:

Responses:	Percentages:
Yes	85.7
Interest	1.57
Vocational	18.5
Intellectual curiosity	42.8
Achievement oriented	27.1
No	14.3
Not practical	10.3
Not vocational	4.3

On probing whether higher education makes a positive contribution to the life of students it appeared, as shown in the Table III 85.7 percent of the students feel that education is a better way of utilizing their time rather than doing any other activity. Students felt that education provides them with some intellectual satisfaction, gaining knowledge, and developing more insight into the problems. 27.1 percent of students stated that education is better way of utilizing their time because it makes the person "achievement oriented", and thus helps in obtaining their respective goals. Only 10.3 percent of students stated that education is not the best way of utilizing their time, rather it is wastage of their time and abilities. In this category responses are not mutually exclusive,

since students responded to more than one category.

Regarding the role of higher education in the development of leadership qualities students differed varied responses.

TABLE - IV

Percentage Distribution of Responses on Developing Leadership Potential Because of Education.

Responses:	Percentages:
YES	82.5
Confidence	62.7
Insight	44.3
NO	17.5
Other experience	17.5

Table IV indicates that 82.5 percent of the students feel that the role of education in developing leadership qualities can be positive, if so oriented. They felt that education should help students to a significant extent in their personal growth. 62.7 percent of the students expressed that education should help them in gaining confidence and provide them with more opportunities for developing their talents. It can enhance the capacity to understand and grasp the basic qualities of leaders. Good Education should help in developing the insight in to their own as well as others problems. 17.5 percent of the students stated that education can not and does not provide them with opportunities for developing talents and

traits. It is helpful to a particular section of students only. It does not provide the opportunities to develop insight and confidence to a large section. The Chi-square value is 6.43 significant at .05 level, indicating the variations in the response categories.

TABLE - V

Percentage Distribution of Responses on Satisfaction of Need for Recognition.

Responses:	Percentages:
YES	75.5
Praise for doing well	75.5
NO	24.45
Criticised	24.2

The Table V indicates that 75.5 percent of the students expressed that education does help them in satisfying their need for recognition. They felt that teachers as well as students appreciate if they do well. 24.2 percent of the students did not find education as a means of satisfying their need for recognition. They felt that teachers and students discourage them and do not reward them with proper incentives even if their work is satisfactory. The Chi-square value for the two response categories is 7.76 significant at .05 level.

✓ TABLE - VI

Percentage Distribution of Responses on Satisfaction of Social Needs.

Responses:	Percentages:
YES	90
Status and Prestige	55.5
Interaction with peers	40.0
NO	10
Other experiences	10

This table shows that 55.5% of students indicate that higher education adds to their social status and prestige, whereas 40 percent of the students feel that education gives them more opportunities to interact with people of various backgrounds and for exchange of ideas. 10 percent of students stated that education does not help in the satisfaction of their social needs, rather it widens the communication gap between students and society. It does not give adequate opportunities to mix up with people of various strata. The Chi - square value is 8.53 significant at .05 level, proving response categories as mutually exclusive.

TABLE - VII

Percentage Distribution of Responses on College Policies & Practices.

Responses:	Percentages:
YES	62.7
Objective assessment	45.0

Ability judgement	58.5
Social class as a criterion	15.7
NO	37.3
Personal biases	18.5
Impractical	11.2

As shown in the table 62.7 percent of the students expressed satisfaction over college policies of admission and evaluation, and indicate that these policies do not block the promotion of their personal growth. They feel that both teachers and students should have equal participation in these policies, so that this may lead to narrowing the illogical assessment. If students are more judiciously assessed, it shall encourage them to work hard, and feel more responsible. Students coming from different backgrounds should get equal opportunities for studies. No class bias should be there, it should help in the upliftment of students coming from weaker strata of the society.

37.3 percent of the students expressed that college policies and practices do not help in their growth. They expressed that these policies are more of subjective nature and reflect personal biases. There is an in-built favouritism which affects students growth. The Chi-square value is 9.72, which is significant at .05 level implying mutual exclusiveness of response categories.

TABLE - VIII

Percentage Distribution of Responses on
Satisfaction of Intellectual Needs.

Responses:	Percentages:
YES	85.7
Reading	30.0
Improve knowledge	61.2
NO	14.2
Theoretical	14.2

The above table indicates that to a greater number of students education is a tool of satisfying their intellectual curiosity. It is expected to help them in improving knowledge and giving them more opportunity to learn, to discuss. 30 percent of students stated that education gives them chance to develop their power of critical thinking. It provides them with more opportunities for interacting with competent and qualified teachers while 14.3 percent of the students feel that education does not satisfy their intellectual needs. They stated that education is just theoretical. It does not increase their knowledge. They can satisfy their intellectual curiosity through other experiences. The Chi-square value is found to be 8.52, significant at .05 level.

TABLE - IX

Percentage Distribution of Responses on
Satisfaction from College Environment.

Responses:	Percentages:
YES	88.5
Intellectual Stimulation	61.5
Socially-congiential	40.0
Good facilities	15.7
Liberal and peaceful	34.2
NO	11.5
Artificial	8.3
Lack of facilities	3.2

The above table indicates that 88.5 percent of students feel that the college environment promotes satisfaction. 61.5 percent of the tested students find the environment intellectually stimulating. Students feel that teachers - students relations are good and friendly. College environment is liberal and peaceful, good library facilities are there. On the other hand 11.5 percent of the students expressed dissatisfaction over college environment. They feel that there is lack of facilities and teachers are not friendly. College environment is so artificial, that it is not conducive to their intellectual development.

The Chi - square value for the various response categories is 12.46 which is significant at .05 level.

TABLE - X

Percentage Distribution of Responses on the
Nature of Pupil - Teacher Relationship.

Responses;	Percentages:
YES	78.5
Intellectual stimulation	55.7
Personal and Social relationship	60.0
NO	21.5
Self oriented	14.2
Politically biased	7.5
Intellectually not sharp	12.5

The above table indicates that 78.5 percent of the students feel that teachers play a prominent role in making the college environment more attractive. They feel that students - teachers relationship needs to be cooperative, informal and friendly. Teachers can help them in solving their personal problems, if there is no communication gap. 55.7 percent of the tested students feel that teachers stimulate them intellectually. Their method of teaching is good. 21.5 percent of the students stated that teachers do not contribute much in making the college environment attractive. Teachers are self oriented, busy in their own work. They are politically biased and do not stimulate students intellectually. They do not encourage the students for hardwork. They are working for the sake of salary. They are not competent.

The Chi - square value is 11.12 which is significant at .05 level.

TABLE - XI

Percentage distribution of responses on the extent of job opportunities.

Responses:	Percentages:
NO	72.8
Lack of job opportunities	52.8
Nepotism	14.2
Irrelevant courses	20.2
YES	27.2
Courses Related to job	27.2

The table shows that majority of the students express their dissatisfaction with the role of education in getting an appropriate job. 52.8 percent of the students feel that education will not help them in getting a suitable job because the job opportunities are very inadequate. Another 20 percent of students stated that since the courses are irrelevant and unrealistic they find it difficult to get a job. 14.2 percent of the students emphasized nepotism as one of the important cause for not getting a job of the competent ones. 27.2 percent of students feel that the higher education shall not help them in getting a suitable job because the courses they study bear no association to the job.

The Chi - square value is 9.72 which is significant at .05 level.

TABLE - XII

The interrelationships among motivators, hygienes and of each with the overall satisfaction are presented in Table XII.

Intercorrelation Matrix of Motivators and Hygiene and their correlation with overall satisfaction.

	1	2	3	4	5	6	7	8	9	10	11	Correlation with overall satisfaction.
1. Opting for higher education	1.00	.06	.07	.17	.05	-.08	-.07	.05	.00	.07	.15	.39 **
2. Personal interest		1.00	.15	.02	.19	-.06	-.01	-.00	-.09	-.04	.18	.61 **
3. Education itself			1.00	-.03	.14	.12	.32 **	.01	.13	.05	.12	.46 **
4. College climate				1.00	.20	-.18	-.03	-.18	.25 ^{xx}	-.03	.05	.34 **
5. Interpersonal relationship with students and teacher					1.00	-.18	-.15	-.27 **	.23	-.05	-.07	.27 **
6. Status						1.00	.48 **	-.00	.14	.09	.22	.20
7. Intellectual satisfaction							1.00	.02	.01	.05	.06	.30 **
8. College policies & practices								1.00	-.22	-.05	-.01	.14
9. Personal growth									1.00	.03	-.13	.16
10. Employment opportunities										1.00	.03	.25 **
11. Recognition											1.00	.32 **

**--indicate significant at .05 level of confidence.

The obtained inter-correlation for motivators show that there is positive but insignificant correlation between opting for higher education and education itself and need for recognition. This implies that decision to go for higher education may not be resultant of self-interest alone. The decision is governed by, besides self-interest, the need for recognition from fellow students teachers and other relevant motivators.

Opting for higher education is a negatively though insignificantly correlated with intellectual satisfaction. This explains that the students do not experience intellectual satisfaction in higher education. Decision to go for higher education seems to be influenced nominally by physical conditions of the college, inter-personal relationship between students and teachers, and employment opportunities.

Opting for higher education does not mean better job opportunities and may not result in gaining status. It means that one is not inclined to go for higher education merely to raise his status and prestige in the society. However, the choice for higher education is positively and significantly correlated with overall satisfaction.

Personal interest correlates positively though insignificantly with education itself, intellectual satisfaction and need for recognition. This means that self motivation alone does not sustain the education motive by itself. Personal interest may help the student in gaining intellectual satisfaction

and recognition. Personal interest also relates to the employment opportunities, in the sense that the later can reinforce the former. Personal interest affects overall satisfaction significantly. This indicates that students feel satisfied in higher education since they choose it for self interest.

The motive to go for higher education for its own sake is positively and significantly correlated with intellectual satisfaction. This indicated that education does contribute to intellectual satisfaction of students in terms of increased knowledge, insight and awareness. There is positive but insignificant correlation between education itself and personal growth and need for recognition. This implies that education itself has some effect in the development of skill and getting recognition which is in the expected direction.

Education also helps in developing good interpersonal relationship and status. This indicates that education provides students a chance to develop relationship with other students and teachers. It may boost their status and may be affected positively by the college policies and employment opportunities.

Intellectual satisfaction correlates positively with personal growth and need for recognition. This implies that intellectual satisfaction may help in the growth of students and in getting appreciation from others. If the students are intellectually satisfied, they feel more recognised and have a feeling of self enhancement and growth. Intellectual

satisfaction is also affected by the college policies and practices and employment opportunities. If the college has good policies, it may provide them with more opportunities in gaining the intellectual satisfaction. If the students were intellectually satisfied, they could create self-employment opportunities also. The intellectual satisfaction correlates with overall satisfaction which is as expected.

Personal growth is found to be negatively correlated with the need for recognition and employment opportunities. This implies that personal growth is intrinsic and may not be blocked by the extraneous factors such as the employment opportunities and recognition. A student may have developed skills but may not necessarily care for appreciation of the same from others.

There is positive but insignificant correlation between personal growth and overall satisfaction, indicating that the insight and confidence that the students gain from education may motivate them to aspire for higher education. College climate is found to affect the interpersonal relations between teachers and students. College climate, in term depends to a certain extent on policies and practices prevailing in the college and the employment market outside. Many of the ills of the outer society may pollute the college climate, which has happened later years. College climate by providing good mental conditions may promote the social and psychological growth of the students, interms of intellectual leadership and

seeking of knowledge. Healthy environmental conditions may also help the student in getting appreciation from other students and teachers. There is a positive and significant correlation between college climate and overall satisfaction. This indicates that healthy college climate is one of the important factors which may help the students in continued higher education, inspite of the limited job-opportunities.

Interpersonal relationship of students with students and teachers is negatively correlated with college policies and practices and the relationship is found to be significant. This means that the college policies promote rivalry and competition among students and teachers, and prevent the development of healthy relationship. This is also reflected in the negative correlation between interpersonal relationship and status and employment opportunities.

Healthy interpersonal relationships are likely to promote personal growth. This implies that positive relationship between students and students and teachers does reinforce self confidence and insight into situations. Healthy relations may also help in increasing their skills and talents. There is positive and significant correlation between interpersonal relationship and overall satisfaction. This shows that good and healthy relationship among teachers and students lead to the feelings of overall satisfaction.

Status is positively though insignificantly correlated

with employment opportunities. This indicated that getting a better job through education helps in raising the status which is expected. There is positive and significant correlation between status and intellectual satisfaction. This implies that if a student has a good job, he feels encouraged to utilize his knowledge and develop insight. Status helps in getting recognition from others. There is positive but insignificant correlation between status and overall satisfaction. This shows that status is not a very effective variable in promoting the feeling of overall satisfaction.

College policies and practices correlate negatively with personal growth. This implies that the present college policies do not promote personal growth directly. There is a positive but insignificant correlation between college policies and practices and overall satisfaction, implying that college policies may play a marginal role in the overall satisfaction of students.

The employment opportunities affect overall satisfaction positively. This means that better opportunities for employment may increase the overall satisfaction of students.

Overall, the intercorrelations within the group of motivators indicate that motivators bear only a little association with each other and do contribute to overall satisfaction. Inter correlations among hygienes showed that out of 14 possible correlations within the hygienes, the number

of positively significant correlations was also low. Again it may be stated that the factors included under the hygienes are not mutually related.

The intercorrelation matrix for motivators and hygienes together indicated that out of 28 possible correlations 27 are found to be negative although all are significant. There was only one positive correlation (between intellectual satisfaction and interpersonal relationship) which was significant. This supports the finding that the motivators and hygienes are two different set of variables, yet internally consistent, since most of the correlations are negative but significant.

The correlation of motivators with overall satisfaction show that out of six motivators, five are positively and significantly correlation with overall satisfaction. Motivators such as opting for higher education, self-interest, education itself, personal growth and need for recognition are found to contribute significantly to overall satisfaction.

The results indicated that out of five hygienes, two are correlated insignificantly with the overall satisfaction, whereas three correlated positively and significantly. Employment opportunities, status and college climate has been found to correlate significantly with overall satisfaction. A possible interpretation appears to be that satisfaction or dissatisfaction arising out of the interpersonal relationship and college policies do not contribute as much directly to the

motivation for higher education as the others. It may be mentioned that motivators contribute more significantly to overall satisfaction against hygiene factors.

In the light of the above discussion, it may be observed that the stated hypotheses has largely been supported by the findings of the present study. Correlational analysis seems to support the first hypothesis that the decision to go for higher education is a function of both motivators and hygienes, as both of these factors are found to be associated with overall satisfaction in higher education. Motivators in terms of personal interest, education itself, need for recognition, personal growth seem to help the students in aspiring for higher education. Similarly hygienes in terms of environmental conditions, college policies and practices and employment opportunities also contribute to overall satisfaction. It appears therefore that both motivators and hygienes affect student's decision to go for higher education, but in different ways.

The second hypothesis that motivators and hygienes are two distinct factors is also partly supported, since motivators and hygienes have been found insignificantly correlated with each other, though insignificantly indicating that these are two different experiences. Motivators may help in having the feeling of satisfaction whereas hygienes may contribute by blocking dissatisfaction. This finding is in

agreement with studies of Fantz (1962)¹, Schwartz, Jenusists and Stark (1963)², Freidlander and Walton (1969)³, Saleh (1964)⁴, Myers (1964)⁵, Freidlander (1964)⁶, Dayal and Saiyadin (1970)⁷, Lodahl (1970)⁸, Davis and Allen (1970)⁹ Lahiri and Srivastva (1967)¹⁰, Rao (1971)¹¹. These studies though done in different settings indicated that motivators are different in nature from the hygienes.

The third hypothesis is also supported by the present findings that motivators relate rather strongly to overall satisfaction than the hygienes. This indicates that motivators are more important in motivating the students for higher education. Students are motivated for higher education in order to gain self confidence, to get recognition, self interest, education itself and intellectual curiosity. The results of the present study point to a stronger relationship between overall satisfaction and motivators than with hygiene factors, thus supporting the

1. Fantz, R. op. cit.
2. Schwartz, M.M., Jenusaitis, E., and Stark, H. op. cit.
3. Friedlander, F. & Walton, E. op. cit.
4. Saleh, S.D. op. cit.
5. Myers, S.M. op. cit.
6. Friedlander, F. op. cit.
7. Dayal, I and Saiyadin, M.S. op. cit.
8. Lodahl, T.H. op. cit.
9. Davis, K., and Allen, G. op. cit.
10. Lahiri, D.K. and Srivastva, S. op. cit.
11. Sarveswara Rao, G.V. op. cit.

findings of Gibson (1961)¹, Halpern (1966)², Graen (1966)³, Ewen-et-al, (1966)⁴, Amir and Krausz (1974)⁵ that motivators are more strongly related to overall satisfaction than the hygienes. At the same time the results differ from the findings of Levine and Weitz (1968)⁶, and Hubert, Holley and Armenakis (1974)⁷ who investigated graduate students. The results of these studies indicated that hygienes contributed more to overall satisfaction than the motivators. The findings of the present study in comparison with these two studies done in academic settings indicate different results which suggest that factors unique to a certain population or social setting influence relationship.

Different students perceive motivator or hygiene factors differently on account of age, education, time and culture in which particular incident happens. Students perceive the same educational characteristics differently depending upon what they expect from their education, their experiences and their adaptability to the conditions in their educational life.

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1. Gibson, J.W. op. cit.
 2. Halpern, G. op. cit.
 3. Graen, G.B. op. cit.
 4. Ewen, R.B., Smith, P.C. Hulin, C.L., & Locke, E.A. op. cit.
 5. Amir and Krausz, M. op. cit.
 6. Levine, E.L. and Weitz, J. op. cit.
 7. Hubert, S.F. Holley, and Armenakis, op. cit.

Any factor can cause satisfaction, dissatisfaction or indifference depending upon many situational variables and satisfaction is not an absolute process but relative to the alternative available to the individual (Smit and Kendall)¹. Since present study is conducted in Indian context different environmental factors have influence the overall satisfaction of students. Satisfaction with a certain aspect of academic setting in Indian context does not necessarily imply satisfaction with the same aspect of academic setting in Western context, since each one of them depends on how well a certain need is met in that society. Same motivator factor can be perceived as hygiene factor by Indian students. The differences in the results of present study and Levine and Weitz study may be due to the cross cultural nature.

The overall results of the present study are in accordance with the Herzberg two factors theory of job satisfaction. The two factor theory enunciated that motivators should negatively correlate with hygienes and motivators should contribute more to overall satisfaction than the hygienes. The results of the present study show that motivators are found to correlate negatively with hygienes and contribute to overall satisfaction to higher degree. This also confirms the hypothesis of uni-polarity of the two factor theory.

1. Smity, P.C. & Kendall, L.M. Cornell Studies of Job Satisfaction: VI implication for the future. Ithaca, cornell University, (Mimeo).

The results of the present study may also be interpreted in terms of what Wernimont¹ calls 'expectations'. According to him people seek jobs with two kinds of expectations. On the one hand, individuals desire responsibility, achievement, interesting work, praise and recognition. A realization of these expectations or aspirations should give rise to satisfaction while an impoverishment may lead to dissatisfaction. These motivators might act as rewards or punishment to the person's self concept, and as such, function as strong sources of satisfaction and dissatisfaction. On the other hand, individuals also have expectations regarding their salary, company policies and practices and working conditions also. If these aspects obviously hygiene factors could meet an individuals expectations, even the so called hygienes could act as 'satisfiers'. Similarly in educational setting students come with two kinds of expectations. On the one hand, students desire achievement, self confidence, an interest in the studies, praise and recognition for their work by the teachers and students. The realization of these expectations gives them feeling of encouragement to perform better in academic work, while deprivation leads to discouragement. Thus the motivating factors may act as source of encouragement or discouragement. Students on the other hand also have expectations about the college policies and practices, interpersonal relationship with students and teachers, good academic environment and employment opportunities etc. If these aspects, obviously hygiene factors again are

1. Wernimont, P.F., op. cit.

met in the organisations, students may feel satisfied.

However, the present results need to be replicated before generalizations can be drawn. The sample drawn from for the present study is small and is from advanced courses such as M.Phil and Ph.D. Since many of the students included at the sample selected are enrolled in specialised courses of research, their aspirations level is probably specific and high as compared to other students of various courses in different colleges. These students are more mature and aware of their psychological, social and economic needs and of the impact of education on these. Their involvement in research work specifies a definite type of career. They are quite well motivated in performing their tasks and find that the affluent environment of the Jawaharlal Nehru University has contributed positively to their motivation. The University provides good library facilities, good working conditions, fellowships, trained professors. It is obvious therefore, that students responses in the present research are influenced by the institutional characteristics and the student's intellectual pursuits.

CONCLUSIONS AND IMPLICATIONS

From the results obtained in the present study it appears that a dichotomy of intrinsic and extrinsic factors in predicting overall satisfaction with education did exist. consequently, Herzberg's proposition that intrinsic variables should relate more strongly to overall satisfaction than the

extrinsic was substantiated for this sample of students. Intrinsic factors were found to be significantly important in terms of their relationships with overall students satisfaction. Amir and Krausz (1974)¹ results also give support to the conclusion that motivators are more potent than hygienes in predicting overall satisfaction.

In terms of future research on students satisfaction in universities, it would be interesting to determine the importance of intrinsic and extrinsic factors for two separate groups of satisfied and dissatisfied students. Halpern's study in industrial context showed some significant relationship between level of satisfaction and importance of intrinsic and extrinsic factors. Only future research will determine if the results can be replicable for university students.

The results of the present study tend to show that students satisfaction is based on a multitude of factors. As a consequence, one should not assume that extrinsic factors as compared to intrinsic factors are insignificant in students satisfaction with their higher education.

IMPLICATIONS

From the present research study the following implications seem to emerge.

1. Herzberg's concept of the two-factor may be employed and tested in educational setting of

1. Amir, and Krausz, op. cit.

various types. The role of motivators and hygienes may be identified in an interactional manner, since the two are found to operate effectively.

2. In order to improve performance in the educational setting, intrinsic (motivators) factors such as self motivation, recognition, personal growth, education itself should be strengthened so as to provide greater satisfaction to the students. Also hygienes such as college climate, status and employment opportunities should be looked upon more seriously as they have been found to be positively and significantly related to overall satisfaction.
3. Efforts should be made to provide adequate physical university facilities not only for the convenience of the students, but also for its influence on education, for example, if a student finds the library well stocked in research materials, office space and study facilities quite adequate and classroom well ventilated and comfortable, it would be less annoying and more conducive to learning hence better performance. Results from this study revealed that the physical facilities contributed toward the satisfaction of student.

4. Some methodological improvements are inevitable. A questionnaire need to be constructed with greater precision and followed by semi-structured free association type interview. Data, may be thus obtained using multi method technique and analysed by using more sophisticated statistical techniques.
5. In spite of the limitations observed, Herzberg's two factor theory has retained its viability and seems applicable in educational setting. The results of the present study illustrate that the findings in the direction of the original study (Herzberg et al 1959)¹, is obtainable through a different methodology.

1. Herzberg et al. op. cit.

CHAPTER - VI

RETROSPECT AND PROPOSED PLAN OF RESEARCH FOR PH.D

The present study, a part of M.Phil course, is based on the general assumption that student motivations differ and differences in motivation should be reflected in differences in college performance of student. Motivation assumes an important role in understanding and analyzing the differences in educational attainment and growth of students inspite of equal level of ability. A student with higher motivation does perform better than one with low motivation. The present research attempts to identify the factors which operate as motivators in higher education, the ways in which these operate and the consequent impact of these on student's performance within the frame work of Motivation - Hygiene theory of Herzberg et al (1959)¹.

Two types of factors have been identified which tend to operate differently in the overall motivation of student. One set of factors is found to relate to environmental conditions: college climate, working conditions, interpersonal relationship between students and teachers, college policies and practices, status and employment opportunities. Another set of factors known as intrinsic relates to the student himself. These are identified in terms of need for recognition, interest in education,

1. Herzberg, F, Mansner, B., & Snyderman, B. op. cit.

self motive, growth in skills, and intellectual satisfaction etc.

Motivation is defined in terms of state of internal disequilibrium which a student experiences and tries to bring back to balance by indulging into appropriate educational activities. The student activates himself in a such a manner that his actions help him in the attainment of his particular goal in the educational organization. The motivated behaviour leads to the attainment of goal and results in a feeling of satisfaction.

A questionnaire was designed, using the factors envisaged by Herzberg et al (1959)¹, tried, edited and used a a tool of data collection. It consisted of six motivators and seven hygienes. 70 students representating the different schools of Jawaharlal Nehru University were used as subjects. Data was analyzed for frequency distributions, Chi - square values and correlations for the motivators, the hygienes, and of each with overall growth and satisfaction. The results supported the following hypotheses.

1. Intrinsic (motivators) and extrinsic (hygienes) factors, both operate as motivators in higher education.
2. Intrinsic factors are different from extrinsic factors.
3. Motivators contribute relatively more to overall growth and satisfaction.

1. Ibid.

However, since the present results are based on a small sample, generalisations need to be drawn based on the replication of the study over larger sample, which would lead to a better understanding of the motivators. The proposed extension may include the following variables.

1. PREDICTORS.

1. Motivational variables.
2. Personal variables.
3. Institutional variables.

Criterion - educational grade, teachers rating and peers rating.

2. HYPOTHESES

The following hypotheses may be tested.

1. Motivators will cause the feeling of satisfaction among students.
2. Hygienes will cause the feelings of dissatisfaction.
3. Satisfaction of motivators will encourage students to perform better.
4. Satisfaction of factors like recognition, personal growth, interest in education, will encourage the students to perform better.
5. Satisfaction of factors like educational policies, interpersonal relationship among students, status, physical condition, employment opportunities should have neutral effect on performances.

6. Motivators are more important in motivating the students for better performance.
7. Motivators should related more to overall growth satisfaction than the hygienes .
8. Determinants of educational growth and satisfaction should be qualitatively different from the determinants of educational dissatisfaction.
9. Higher the motivator better will be the performance and vice versa.

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A P P E N D I X - I

QUESTIONNAIRE:

1. Why did you choose to go for college education?
2. How far do you feel that you are forced by your parents to join the college education?
3. How far do you feel that education is a better way of utilizing your time rather than doing any other activity?
4. How far do you feel that education helps you in developing leadership qualities?
5. How far do you feel that education satisfies you need for recognition?
6. Do you feel that education satisfies your social needs?
If yes, How?
7. Do college policies and practices help in promoting the growth of the students? If yes, How?
8. How far do you feel that education satisfies your intellectual needs?
9. How far do you feel that college environment is satisfactory?
10. Do you feel that teachers contribute in making the college environment attractive? If yes, How?
11. Do you feel that the education helps you in getting the right kind of job and How?