

MOTIVATION AND SOCIAL MOBILITY

by

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ABSTRACT

This study attempts to explicate the observable differences in the rate of upward social mobility among the various ethnic groups in terms of a configuration of motives. The results of earlier studies investigating the relationship between achievement motivation and social mobility had indicated that the achievement motivation by itself is not sufficient to satisfactorily explicate the problem of differential rate of social mobility. It has been suggested that it may be necessary to incorporate the affiliation motive as the second motivational factor affecting social mobility. This study proposes to pursue this suggestion further. The general hypotheses to be tested here are as follows.

1. Ethnic groups vary in their motivational orientation, and they can be classified into groups of similar motivational configuration (motivational groups) determined by the relative strengths of the tendencies to approach success and to avoid failure, the two components of achievement motivation, and the affiliation motive.
2. These motivational groups vary in their levels of occupational and educational aspirations which are assumed to be indices of potential mobility.
3. Because of the feeling of alienation, the affiliation motive would be stronger among the members of the ethnic minority than among the members of the culturally dominant group, and it is expected that among the former the affiliation motive is more significant as a determinant of aspiration levels than the achieve-

ment motive.

The sample consisted of all available Grade 11 and 12 boys from three Vancouver schools. The test consisting of the Thematic Apperception Test (TAT), Mandler-Sarason Test Anxiety Questionnaire (TAQ), and a set of questions designed to establish subjects' ethnicity, social class, occupational and educational aspirations were administered in a number of separate group sessions in each of the schools. Both the TAT and TAQ were scored in accordance with the relevant scoring manuals and the occupational aspiration score was determined by a modified version of the system used by Rosen.

The results are in general not conclusive. The hypothesized relationship between motivational configuration and occupational aspiration is apparent although the trend is not statistically significant. There is, however, no apparent relationship between motivational configuration and educational aspirations. The results further show that when class is taken into account the aspiration scores of the members of the upper class is related neither to achievement nor to affiliation. The question of the relative strengths of affiliation and achievement motives also remains unresolved. It was concluded that the theory of achievement motivation may find useful applications in the problems of socio-economic phenomena, but these results indicate the improvements in both theoretical and methodological areas must be made in order to obtain more reliable results.

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CHAPTER ONE

GENERAL INTRODUCTION

It is fairly obvious that among the various ethnic groups which make up the population of Vancouver there are marked differences in their rates of social mobility. It is equally obvious that differential group social mobility is not a localized phenomenon peculiar to the Vancouver area but can also be found all across Canada and the United States.

Rosen, for example, has observed and studied this phenomenon as it occurs among the ethnic groups of northeastern United States (Rosen, 1959).

In this work Rosen summarizes past attempts at explicating this phenomenon as follows.

The reason offered to explain these differences vary with the group in question. Thus, differences in group mobility rates have sometimes been interpreted as a function of the immigrant's possession of certain skills which were valuable in a burgeoning industrial society.... Social mobility seems also to be related to the ability of ethnic and social groups to organize effectively to protect and promote their interests.... The repressiveness of the social structure or the willingness of the dominant groups to permit others to share in the fruits of a rich, expanding economy has also been given as an explanation of differential group mobility.... Finally, it has been suggested that groups with experiences in small town or urban environments were more likely to possess the cultural values appropriate to achievement in American society than were ethnic and social groups whose cultures have been formed in rural, peasant surroundings (pp. 47 - 48).

The validity of some of these suggestions cannot be denied.

For example, it can be argued that the relatively low rate of social mobility which characterized the local Japanese until recently is due,

among other factors, to the fact that during the Second World War they were denied any opportunity to advance socially and materially. Certainly the Japanese group during the same period was in no position to promote and protect the interests of its members. However, it should be noted that these explanations which Rosen reviews merely define the conditions under which upward social mobility should or would occur and do not deal with the forces which actually impel the individuals, and the group of which the individuals are members, to seek improvements in social status. Clearly if such forces are not present there will be very little, if any, upward movement in social status irrespective of the existing conditions.

The concept of achievement motive would appear to provide the necessary impetus and a number of studies have been carried out in this direction. The results of these studies have not been consistent, however, and it has been suggested that perhaps it would be necessary to speak of a configuration of motives in attempting to relate motivational variables to problems of social mobility. The present study pursues this suggestion by incorporating affiliation motive as the second motivational determinant of social mobility. The basic objective of this paper is to demonstrate that ethnic groups can be classified into groups of similar motivational configuration (motivational groups) and that these groups will vary in their levels of educational and occupational aspirations which are conceived as indications of potential mobility.

A motivational configuration is determined by the relative strengths of the need for achievement and the need for affiliation. By need for achievement it is meant a tendency to undertake some activity

(achievement oriented activity) with the expectation that the performance will be evaluated in terms of standard of excellence (Atkinson, 1965).

Similarly, the need for affiliation is defined as a tendency to move toward others to elicit positive affective response from them (Atkinson, Heyns, and Veroff, 1954, p. 410), or as a need to seek social approval.

The term "tendency" used to define the two needs above require some clarification. It is necessary when discussing Atkinson's risk-taking model to distinguish between potential and aroused motives. Potential motive can be conceived as some normative motivational state that is relatively stable over time (Heckhausen, 1967). Aroused motive, or tendency, on the other hand, is generally conceived as a function of potential motive (hereafter referred to as "motive"), expectation, and incentive. The relationship between tendency and motive is defined by the equation, $\text{tendency} = \text{motive} \times \text{incentive} \times \text{expectancy}$. Thus, achievement motive, for example, is conceived as a tendency to move toward a particular kind of incentive, namely, pride in accomplishment. The theory of achievement motive which follows seeks to define the relationship between achievement motive and performance of achievement-oriented tasks.

1.1 The Risk-Taking Model

The so-called "risk-taking model" formulated by Atkinson provides us with the basic theoretical framework for the present study. The basic research for this model really begins with the work of McClelland and his associates whose initial efforts were directed at devising a method of measuring achievement motivation (See McClelland, Clark, and Lowell, 1953) which culminated in Atkinson's theoretical formulation risk-

taking behavior (Atkinson, 1957).

The following discussion of the risk-taking model pertains to an idealized achievement - oriented situation. That is, it pertains only to those situations in which the only incentives provided for the performance of a task is the expectation that such performance will be evaluated in terms of some standard of excellence.

In the risk-taking model any achievement related situation is assumed to arouse two opposing tendencies. On the one hand it arouses a tendency to approach success (an achievement tendency) with its positive incentive value, on the other hand, it also arouses a tendency to avoid failure with its negative incentive value. It is further assumed that the two tendencies always act in opposition to the other so that the individual is influenced by the algebraic sum of the two opposing tendencies which has been labelled the resultant achievement motive (Atkinson and O'Connor, 1966). Thus, in a choice situation where an individual is required to choose among alternatives of varying degrees of difficulty (for example, a goal setting situation), both his choice and the vigor of his subsequent activity are conceived as a function of the strength of the resultant achievement motive.

The major hypotheses arising out of the risk-taking model are as follows.

- (1) Those individuals, whose tendency to approach success is strong relative to their tendency to avoid failure, will show a greater preference for intermediate risks than those whose tendency to avoid failure is strong relative to their tendency to approach success.

- (2) Those individuals whose tendency to approach success is strong relative to their tendency to avoid failure will perform achievement-oriented tasks more rapidly and efficiently than those whose tendency to avoid failure is strong relative to their tendency to approach success.
- (3) Those individuals whose tendency to approach success is strong relative to their tendency to avoid failure should be less persistent than those whose tendency to avoid failure is strong relative to their tendency to approach success when the problem is perceived as extremely difficult and when there are other achievement activities to be undertaken as an alternative.

A number of researches have been carried out to test the various implications of this model. Martire (1956) showed that individuals high in achievement motivation but also anxious about failure tended to set a low level of aspiration. Similarly Atkinson and Litwin (1960) showed that in a ring-tossing game the subjects (college students) with high achievement motivation chose tasks of intermediate difficulty. Clark, et. al. (1956) using desired examination marks as goals showed that the individuals with low achievement scores tended to be unrealistic in their expectations while those with high scores tended to be more realistic. When vocational goals were used as an index of aspiration, Mahone (1960) found that individuals with high anxiety level (fear of failure) selected more unrealistic careers than did achievement motivated individuals. Burnstein (1963) obtained essentially the same results. Minor and Neel

(1958) were able to show that high achievement motive is related to a high occupational level of aspiration.

Attention can now be focused on the relationship between task performance and achievement motivation. Feather (1961) carried out a study in which the task consisted of attempting to work out a puzzle which the subjects were led to believe to be either "easy" or "difficult", but which was in fact insoluble. The purpose of the study was to determine the relationship between achievement motivation and persistence. Persistence was measured on two dimensions--the number of attempts the subjects made to solve the puzzle and the length of time spent attempting to solve the puzzle before turning to alternative tasks. The results showed that achievement motivated individuals were more persistent, along both number and duration dimensions, than failure motivated individuals when the task was presented as "easy", and vice versa. These results were replicated in a follow up study (Feather, 1963).

The research evidence cited would indicate that the risk-taking model is a fairly good description of achievement-oriented behavior, at least in laboratory situations. There are, however, problems when an attempt is made to apply the model to "real-life" situations. These are discussed in the next two sections.

1.2 Achievement Motivation in Society

There are two reasons for offering differences in motivational configuration as one of the underlying causes of the differential rate of social mobility among ethnic groups. First is that the acquisition of motives appears to occur early in the individual's life, and second is that, once acquired, motives become a relatively stable and persistent part of the individual's personality (McClelland, 1958). Since all motives are assumed to be learned, the role of early childhood experiences become an important and integral component of the process of motive acquisition. These early experiences include not only the overt parental behavior (emphasis on achievement-oriented behavior and independence training) but also include the complex of attitudes and values to which the child is exposed.

There has been some research carried out with the view to isolating the variables that influence the development of achievement motivation. Winterbottom (1958), for example, found that high motive in boys was related to their mothers' child rearing practices. She found that relative to the mothers of boys with low achievement motivation, the mothers of boys with high achievement motivation placed greater emphasis on independence and competence, and rewarded self-reliant mastery with recognition and affection (See also Rosen, 1959). Rosen (1961) attempted to relate demographic variables to achievement motive. He found that such variables as family size, mother's age and position of the individual achievement motive. He concluded, however, that while

these.

data, then, indicate that the demographic factors...have relevance for the development of achievement motivation, but their effects are complicated, interconnected, and interdependent upon one another, and difficult to assess individually (P. 585).

However difficult it may be to determine the influence of any given variable on the development of achievement motive, it appears safe to assume that childhood experiences play a major role in the development of achievement motivation.

Since child rearing practices, and attitudes and values are culturally determined, we should then expect differences in achievement motivation among different cultures. Further, it seems reasonable to assume that these differences persist among the immigrants since they tend to retain the elements of their respective cultures. This point was raised by McClelland, et. al.

The data we have to date strongly support the hypothesis that achievement motives develop in cultures and families where there is an emphasis on the independent development of the individual. In contrast, low achievement motivation is associated with families in which the child is more dependent on his parents and subordinate in importance to them...it has been widely assumed that German and Italian families fall predominantly in the second category, that is, are more "solidary". If so, do sons from these families show less achievement motivation than comparable children (who come from) individually-oriented families(1953, p. 328).

Research in this direction appears to support the suggestion that there are cultural differences in achievement motivation. Rosen (1959) in his comparative study of different ethnic groups showed that their mean achievement motivation scores differed from each other, although not all the differences were significant at 0.05 level (see also McClelland, Sturr, Knapp, and Wendt, 1964). Since social classes can be considered as subculture within a society, studies of differential levels of achievement motivation among the members of different social classes are also relevant to the point under consideration. The fact there are differences is fairly well documented (Crockett, 1962; Douvan, 1956; Douvan and Adelson, 1958; Rosen, 1956; 1959). In general these studies demonstrated that the children from middle class families show higher achievement motivation than the children from families of other classes. In fact, Rosen (1959) has shown that social class is more significantly related to achievement motivation than to ethnicity.

1.3 Achievement Motivation and Social Mobility, the Effect of Affiliation Motive

Atkinsonson argues that the risk-taking model has relevance to the analysis of the problems that occur in the society at large. He goes on to argue that the general applicability of the risk-taking model

means that the social psychological problems of vocational aspiration, social mobility, etc. can be considered by recognizing that the hierarchy of occupations...is a continuum of "tasks" which differ in "difficulty" (i.e., probability of success) and also in "incentive value" (i.e. status accorded persons holding those occupations) (1959, p. 163).

In short, Atkinson's position is that the goal setting behavior in a "real-life" situation is a risk-taking behavior and is, therefore, determined by the same relationship between motivation and performance that determine the risk-taking behavior in the laboratory.

If the preceding argument is valid, the risk-taking model and the hypotheses it generates would imply that

- (1) The group whose members consist of individuals with high achievement motivation would tend to select those "life-goals" (for example, educational and vocational goals) more consistent with the perceived opportunity for upward mobility available to its members than would the group whose members consist of individuals with low achievement motivation. For example, in selecting vocational goals the group as a whole would tend to aspire to those occupations, the attainment of which, the group members perceive as of intermediate difficulty (the probability of success is about 0.50).
- (2) Once such a group sets its life-goals it would in general be more successful in attaining these goals than the group with low achievement motivation.
- (3) Once such a group sets its life-goals, it would be more persistent in attaining these goals than the group with low achievement to the extent that these goals can be considered the only achievement-oriented behavior that can be undertaken.

In short, these generalizations would indicate that the groups high in achievement motivation would also be high in upward mobility.

The results of research in this area have not been too favourable to the above argument. They indicate that the expected relationship between group motivation and group mobility does not seem to appear consistently from one group to another, or appears only when some additional variables are introduced. For example, Crockett (1963), in his intergenerational study of differential social mobility, found that achievement motivation was significantly related to upward mobility among the lower and middle classes but not among the upper classes. Rosen (1956) found that the observed high rate of mobility among the members of the middle class was related to high achievement motivation, but he also found that middle class value orientation was such that it was conducive to a high rate of mobility. Rosen's results appear to support his hypothesis that differential mobility is caused by the fact that social classes

possess to a disparate extent two components of this achievement orientation. The first is a psychological factor involving a personality characteristic called achievement motivation...which provides an internal impetus to excel. The second is a cultural factor consisting of certain value orientations which define and implement achievement motivated behavior (1956, p. 204).

Similarly, in his study of differential mobility among ethnic groups, Rosen (1959) found that the groups with high achievement motivation also scored high in value orientation (i.e., amenable to high rate of mobility) and in achievement training.

Taken at their face value these results would imply that the risk-taking model, while predicting individual behavior fairly well, is of little use in predicting group behavior. However, before passing any judgement, consideration must be given to the experimental conditions under which these studies were undertaken. Studies of individual

behavior were generally carried out in well controlled, laboratory situations while the studies just cited were "field experiments". It is, therefore, logical to assume there is a considerable amount of "noise" in the latter experiments confounding the results.

It then becomes important to determine just what the "noise" is. In attempting to account for the failure of the expected relationship between achievement motivation and mobility to appear among the members of upper classes, Crockett alludes to the correlation between mobility and affiliation motive which he found among the upper classes. Although Crockett is quick to point out this relationship was found only among the third of the total sample, in view of some other research evidence (cited Later), it is suggested here that the affiliation motive may be an important factor to be considered in the analysis of problems of social mobility. In support of this suggestion, it can be argued that the concept of "achievement syndrome" (Rosen, 1956; 1959) implicitly incorporates affiliation motive as a determinant of achievement-oriented behavior. Consider his argument that

achievement-oriented situations and goals are not defined by the achievement motive; it may provide the impetus to excel, but it does not delineate the areas in which such excellence should or may take place (1956, p. 204).

It can then be argued that individuals will move toward these "delineated" goals only to the extent that there is a felt need to seek approval by excelling in these areas. That is, it is argued that the attainment of

those goals that are culturally defined as "worthwhile" constitutes satisfaction of not only the need for achievement but also of the need for affiliation.

There are research data which can be cited to substantiate the view that there is a need to consider "the potential, and relatively ignored importance of the need for affiliation (or social approval) as a determinant of achievement-oriented behavior" (Atkinson and Feather, 1966, p. 346). French (1955), for example, observed that when affiliation cues are more prominent (that is, when the experimenter appeals for cooperation) in the experimental situation than achievement cues, performance is related more to affiliation scores than to achievement scores. Atkinson and Reitman (1956) obtained essentially the same results (see also Atkinson and Raphelson, 1956; French, 1956).

Atkinson and O'Connor (1966) carried out an experiment which bears directly on the point under consideration. The experiment was designed with the view to developing an objective measure of achievement motivation. They, therefore, began by attempting to correlate achievement motivation and Test Anxiety (an avoidance motive) to performance indices (speed of performance, risk-taking preference, and persistence) intending to develop these indices into an objective measure of achievement motivation. However, these behavioral indices failed to conform to the pattern as predicted by the risk-taking model. A careful analysis of the test situation led the researchers to suspect that motives other than achievement motivation, in particular the need for affiliation, may be operating to confound the

results. They reasoned that

when there are different kinds of incentive to perform a task (e.g. achievement, social approval, money, etc.), the relationship between level of performance (taken as a measure of strength of motivation) and independent measure of the strength of any particular motive should be reduced, since the total strength of motivation expressed in performance is overdetermined (Atkinson and O'Connor, 1966, p. 315).

The re-analysis of their data supported this reasoning. They, therefore, tentatively hypothesized that

- (1) when the need for affiliation is weak relative to the achievement motivation, the predicted relationship between resultant achievement motivation and performance should appear, and
- (2) that when the need for affiliation is strong, achievement-oriented behavior should be apparent regardless of the strength of the resultant achievement motive, or if the resultant achievement motive is also high, this individual should show a decrement in performance.

They concluded "that both resultant achievement motivation and the need for affiliation contribute to the determination of the predicted achievement-oriented performance" (Atkinson and O'Connor, 1966, p. 323).

1.4 Statement of the Problem

McClelland and his associates have argued that achievement motivation, as well as all other motives, is learned during the early years of life, and that the learning situation is culturally determined. Their argument, when taken together with the risk-taking model, would suggest that there are ethnic groups higher in achievement motivation than others, which would in turn imply that the former group will show greater upward mobility

than the latter. In this connection McClelland asks whether German and Italian youths, by virtue of their family background, would have a low achievement motivation has been answered in the affirmative, at least for the Italians (Rosen, 1959). Further, the Italians have been shown to display relatively low upward mobility when compared to some other ethnic groups. However, it cannot be said unequivocally that high achievement motivation will necessarily lead to a high rate of upward mobility, or that low achievement motivation will lead to a low rate of mobility. This is so for at least two reasons. First, Rosen (1959) has shown that not only the low achievement motive but other factors as well are required to account for the low upward mobility among some of the ethnic groups in the United States. There are other research evidences which indicate the importance of the need for affiliation as a determinant of achievement related behavior. Second, the traditional Chinese and Japanese emphasis on family solidarity would tend to suggest that these groups would show low achievement motivation. However, the number of Chinese and Japanese youths attending, or planning to attend, higher educational institutions would tend to suggest that these groups are highly achievement motivated groups. This apparent failure of the risk-taking model in predicting behavior can be explained if we consider the operation of an extrinsic factor in influencing behavior. It is known from the risk-taking model and its modification (Atkinson and O'Connor, 1966) that there are at least three factors --tendency to approach success, tendency to avoid failure, and affiliation motive--operating to determine achievement-oriented behavior. This would

imply that it would be the particular combination of these factors prevalent within the given ethnic group that would determine its rate of mobility. The present study attempts to explore this relationship as it exists among the local ethnic groups.

This research consists of two parts. The first part is concerned with the problem of differential mobility among ethnic groups. The second part investigates the difference between the members of ethnic minorities and the members of the dominant culture in the relative importance of affiliation motive as a determinant of achievement-oriented behavior.

Part One

It is hypothesized that

- (1) The ethnic groups can be classified according to the particular pattern of tendency to approach success, tendency to avoid failure, and affiliation motive. More specifically it is hypothesized that ethnic groups can be classified according to the following scheme:

Group I the tendency to approach success is strong relative to the tendency to avoid failure and the affiliation motive is strong.

Group II the tendency to approach success is strong relative to the tendency to avoid failure and the affiliation motive is weak.

Group III the tendency to avoid failure is strong relative to the tendency to approach success and the affiliation motive is strong.

Group IV the tendency to avoid failure is strong relative to the tendency to approach success and the affiliation motive is weak, and

- (2) the differential rate of mobility among different ethnic groups with approximately equal opportunities for upward mobility should be reflected in the above classification, that is
- (a) Groups II and III should show high upward mobility,
 - (b) Group IV should show low upward mobility, and
 - (c) Group I represents an ambiguous case. *

Part Two

The general hypothesis to be tested here is that the affiliation motive is more important among the members of ethnic minorities than among the members of the dominant culture as a determinant of achievement-oriented behavior. Consider the following description of the problems of the children of ethnic minorities.

The child of the ethnic minority group has two statuses, he is both Mexican, Japanese, or Italian, say, and American. The images and feelings which the two groups have of themselves and each other may not correspond....Because of his ethnic origin, many of his peers may reject him, or even if they don't, he still fears that they may do so.

For the child, this double identity may--although, of course, it need not--lead to problems of "marginality"....
(Elkin, 1960, P.92)

The lack of strong identification with either the culture of his parents or that of the dominant group may eventually give rise to a phenomenon of "self-hatred" which, in Kurt Lewin's words, is

* It is expected that this group will set a relatively high level of aspiration but it may in fact show low upward mobility. The reason for this is that the summation of high resultant achievement and high affiliation motives may boost the total motivational level to such a level that the group is actually over-motivated, that is, the total motivation may exceed some optimum level. Performance decrement in such a situation is quite possible (see Atkinson and O'Connor, 1966).

a tendency to accept the values of the more privileged group....The members of the under-privileged group therefore becomes exceedingly sensitive to everything with his own group that does not conform to those values because it makes him feel that he belongs to a group whose standards are lower (Kurt Lewin as cited in Elkin, 1960, p. 93).

The importance of the influence of the reference group on achievement-oriented behavior is apparent in the concepts of "marginality" and "self-hatred". For the children of ethnic minorities the problem of identification is, thus, a very real one. The phenomenon of "self-hatred" may mean that these children may not necessarily identify with the values of their respective minority cultures. If it is true that these children seek the acceptance of their peers who are members of the dominant culture, then it would seem reasonable to expect their level of affiliation motive to be high relative to that of the children of the dominant culture. Whether this strong need for affiliation will lead to upward mobility would depend, of course, on the values of the reference group. If the value system of the reference group is not oriented toward achievement, then the argument presented earlier (i.e., Rosen's argument) would imply that there will be little or no upward mobility even when the level of achievement motivation is fairly high, and certainly when it is low. However, since North American culture characteristically emphasizes independence and initiative, it is expected that the children of minority groups would have as their reference group a highly achievement-oriented one.

If the above argument is valid it can be specifically hypothesized that

- (1) the affiliation scores of the ethnic minorities are higher than those of the dominant group, and that
- (2) among the ethnic minorities the affiliation motive is a better predictor of goal setting behavior than the achievement motive, that is, there should be a higher correlation between affiliation scores and aspiration indices than between resultant achievement scores and aspiration indices. Resultant achievement motivation has been defined as achievement motivation (as measured by TAT) minus fear of failure (as measured by TAQ). However, in order to be able to subtract one score from the other, it is necessary to make these two scores compatible. If we let X_i and Y_i be TAT and TAQ scores respectively of the i th individual, then it can be shown that

$$X_i = (3/16) Y_i - 15 \quad (1)^*$$

Then from the definition of resultant achievement motivation it is possible to write

$$R_i = X_i - (3/16) Y_i - 15 \quad (2)$$

where R_i is the resultant motivation of the i th individual.

*Equation 1 is derived as follows. Since for each story TAT score ranges from -6 to 11 and since there are six stories per subject, it follows that, for any given subject, the range of TAT score is 72 (66 - (-6)). The TAQ, on the other hand, is scored on a nine point scale, the minimum point of which is one. Since there are 48 scorable items on the questionnaire, the range of score for any given subject is 384. If we now assume that the intervals between the minimum and maximum points on the two scores are equal, then we can say that the interval between two points on the TAT score is equivalent to 72/384th of the interval between two points of the TAQ score. Adjusting for the different minimum points we obtain

$$X = (72/384)Y - 15, \text{ or } X = (3/16)Y - 15.$$

CHAPTER TWO

RESEARCH DESIGN AND PROCEDURE

Ideally this research should be a longitudinal one. That is, measures of the three determinants of achievement oriented behaviour should be taken at one point in time, and then compared with the actual performance record some years later. However, the time constraints under which this study must be undertaken preclude such a long-term project. It will, therefore, attempt to determine the relationship between n-Achievement (tendency to approach success), Test Anxiety (Tendency to avoid failure), and n-Affiliation (affiliation motive) on the one hand, and educational and vocational aspirations of high school students on the other. It is assumed that vocational and educational aspirations are indices of potential mobility.

2.1 Research Instruments

There are a number of instruments used in this study and they require some elaboration.

- (1) Thematic Apperception Test (TAT) This is the technique McClelland, et. al. developed to measure n-Achievement. It has since been expanded to include n-Affiliation (Atkinson, Heyns, and Veroff, 1954; Shipley and Veroff, 1952). The technique consists of showing a series of pictures about which the subjects are required to write stories. The protocols thus obtained are marked according to the relevant scoring manuals (McClelland, Atkinson, Clark, and Lowell, 1953; Heyns, Veroff, and Atkinson, 1958). The particular pictures

used in this study were selected from among Atkinson's "Recommended Sets" (1958c, pp. 831-836). The particular set listed below is a multipurpose set for measuring achievement and affiliation motives simultaneously. The numbers refer to the identification numbers in D. C. McClelland's catalogue of pictures (see Atkinson, 1958c, pp. 831-837).

2. Two men ("inventors") in a shop working at a machine
 - 1 Father and son
 - 7 Boy with vague operation scene in background
 - 85 The heads of two men facing each other, the older on the left and the younger on the right.
 - 81 Figure under street lamp at night
 - 87 Woman and man. Older woman standing by a window. To her right is a young man. (in the picture Atkinson recommends, the woman is sitting and their relative positions are reversed.)

The pictures were made into slides and shown to the subjects en masse in the order listed above.

- (2) Test Anxiety Questionnaire (TAQ) Mandler-Sarason Test-Anxiety Questionnaire (Mandler and Cowen, 1958) is used to measure the avoidance tendency. The high school set consists of 52 items of which four are fillers. Each item consists of a statement and an uncalibrated line immediately below. The subject is required to indicate the degree of agreement (or disagreement) with the statement by placing an "X" on a point on the line which, in his belief, represents the best approximation of his feelings.

(3) Educational and Occupational Aspirations

- (a) Educational aspiration is measured by asking the subjects whether they intend on going to work after graduation, to attend vocational schools or technical institutes, or to attend universities.
- (b) Vocational aspirations are determined by a slightly modified version of the instrument used by Rosen (1959). He selected ten occupations which can be ranked by social status. These were, in order of status, Lawyer, Druggist, Jewelry Store Owner, Machinist, Bank Teller, Insurance Agent, Bookkeeper, Mail Carrier, Department Store Salesman, and Bus Driver. In the present study "Pharmacist" was substituted for "Druggist" because the use of the former term is more prevalent locally than the latter. The occupations are presented in alphabetical order and each subject is asked, "If things worked out so that you are in the following occupations would you be satisfied or dissatisfied?" Weights were then assigned to the occupations in accordance with the "satisfied" responses they elicited and the weights of the occupations to which an individual replied "satisfied" were summed to arrive at the occupational aspiration score for that individual. However, as Rosen points out, it may be misleading to speak of the "height" of vocational aspirations. All groups would have "high" aspirations to the extent most students will likely be content to be in high status occupations. The significant

difference may be in the "floor" which the groups place on their aspirations. That is, there may be significant differences among the groups in the percentage of "satisfied" responses for the lower status occupations. For this reason, research data will also be analyzed with the view to determining the "floor" for each group.

- (4) Social Class All three variables, n-Achievement, N-Affiliation, and Test Anxiety, are significantly influenced by the subject's position in the hierarchy of social classes. It is, therefore, desirable to see if the hypothesized relationships between motivation and mobility can still be maintained when this variable (social Class) is held constant. This can be accomplished by dividing each ethnic group into social class sub-categories. It was originally planned to use Hollingshead's Index of Social Position (Hollingshead and Redlich, 1958) the calculation of which would require information regarding the subject's residential area, and occupation and educational level of the chief wage earner in his family. However, it was pointed out by the Vancouver School Board that questions about the educational level of the parents are a potentially sensitive area and, therefore, it became necessary to delete this question. This decision automatically precluded the use of Hollingshead's index but it was decided that the information about residential area and occupation of the chief wage earner would be sufficient by themselves to enable the stratification of the sample. In this task advantage was taken of the fact that a community tends to divide itself into fairly well defined socio-economic areas into

which individuals of similar social status congregate, and of the premise that there exists a hierarchy of occupations and that social status is a partial function of the occupation held. The actual classification was carried out by two markers working independently. They were asked merely to classify each subject into one of the three social classes solely on the basis of information relating to the subject's residence and occupation of the parent or guardian. There was no attempt made to direct the markers as to the relative importance of these two variables as determinants of social position. While this method may be a little crude, it has one important advantage over the more sophisticated objective measures in that it incorporates a degree of subjectivity which simulates non-laboratory conditions. That is, the method maintains some of the elements of the subjective process through which an individual normally evaluates the relative positions of others within the prestige structure of the community. Because of the subjectivity inherent in this method it was inevitable that discrepancies would occur between the two sets of evaluations. It should, however, be pointed out that in actuality there were very few discrepancies, a fact indicative of the degree of consensus prevalent among the individuals regarding the prestige structure of their society. Where there were discrepancies a third opinion was sought to resolve the difference.

- (5) Finally, the ethnicity of the subjects must be determined. This task proved to be more difficult than expected. It was decided that simply asking the subjects to state their ethnicity would be inadequate since they may simply state the country of their origin which may or may not reflect their "true" ethnicity. The information required is that which

would permit classification of the subjects according to their cultural background. Since no single index appeared to be adequate to differentiate among the variegated ethnic groups, it was decided to use a number of indices to accomplish this task. The indices used in this study are national origin of the subject and his family including his grandparents, major language (other than English) used at home, and his parents' religion. It is expected that one or the combination of all three cultural indices will sufficiently define the subject's ethnicity. Since the research requires that the members of ethnic minorities be compared against those of the culturally dominant group, it is not sufficient to merely distinguish among ethnic groups. However, in a country like Canada it is not an easy task to distinguish between "minority" and "dominant" groups. In view of the socio-historical background of Canada in general, and of the Vancouver area in particular, it was, however, decided to define dominant group as that group consisting of individuals of Anglo-Saxon extraction, and all other groups as minority groups.

2.2. Data Collection

The data was collected in two stages. The first stage was a pilot study devoted to testing the research design and its ability to collect usable data. It was during the second stage that the data actually used in this study was collected. Both stage one and stage two were carried out in the early spring of 1968.

The subjects for the study consisted of all male Grade 11 and 12 students from three high schools in the Vancouver School System. This choice of high school students as subjects was dictated primarily by the need to obtain, as far as circumstances would allow, a representative

sample which would reflect the needs and aspirations of the composite ethnic groups. It can be justifiably argued that students in their final two years of their high school education are not representative of the boys in that age group but it was not feasible, from the point of view of the administrative difficulties involved and of the availability of suitable subjects, to attempt to obtain a truly random sample. It was also because of this reason that the test was administered in only three schools. It was originally planned to use only Grade 12 students but since the number of boys enrolled in that grade in any given school was so small that the size of sample thus obtained would have been below tolerable level. It was, therefore, decided to extend the age limits to include Grade 11 boys rather than to increase the number of schools as the latter alternative would have been beyond the means available.

The choice of schools is then obviously of critical importance. The task of choosing the three appropriate schools out of 17 secondary schools in Vancouver School System proved somewhat difficult since ethnic groups tended to congregate in groups in different areas of Vancouver with distinctly different socio-economic backgrounds. This presented the writer with two alternative courses of action. Either the schools could be chosen from socio-economically similar areas thus excluding many ethnic groups or they could be chosen so that a maximum number of ethnic groups would be included but the sample would cover the entire spectrum of socio-economic scale. Since it was felt desirable to obtain as large a number of ethnic groups as possible it was decided to use the second alternative as one of the choice criteria.

The other criterion was sample size. Since the tests were to be administered in only three schools, in order to maximize the sample size an effort was made, within the limits set by the first criterion, to select those schools with the largest student population. The schools ultimately chosen were scattered some distance away from each other and located in each of the areas which can be classified as representing upper, middle and lower social classes.

2.3 Experimental Conditions

In order that experimental control be maximized the tests should have been administered in a single group session in each of the three schools. However, the segregation and assembly of the subjects would have been extremely disruptive of the normal school routine, and on the suggestion from the schools concerned this method of test administration was abandoned. Fortunately there are classes -- guidance classes-- in which the male and female students are already segregated. The tests were, therefore, administered in a series of group sessions in which the number of subjects in any one group ranged from twenty to thirty boys.

The extreme sensitivity of the thematic apperception tests to the slight variations in stimuli, however, was a source of some concern. The most serious objection that can be raised against the administration of the TAT in separate groups is the problem of contamination. It was feared that the contact between the individuals who had already written the tests and those who had not yet taken them would affect the spontaneity of the response of the latter individuals. Obviously it was impossible to attempt to prevent the two groups from coming into contact or to restrict

the discussions of the tests. An effort was, however, made to limit the opportunities for the occurrence of such contacts to a minimum by choosing the test dates so that all or most of the relevant guidance classes were held on that day. On these days most of the tests would be given consecutively without a break so that the opportunities for the contaminating contacts were at a minimum. There were, of course, breaks for lunch during which the opportunities for contact would increase tremendously, and the probability for contact was greater for the subjects who were given the tests during the latter part of the day than those who were given the tests earlier. However, it would have been extremely difficult, if not impossible, to control these factors and they were, therefore, left to vary freely.

Before giving the tests, each group was told that the researcher, a graduate student, is collecting data for this thesis. Since the tests were to be administered in separate groups it was felt better not to provide any explanation, factual or otherwise, as to the nature and purpose of the research since anything told the subjects may have an adverse effect on the responses obtained from later sessions. The reason for the lack of explanation was, however, carefully explained. This course of action proved effective as there were no signs of resentment or hostility attributable to the lack of explanation.

There was another reason for keeping the explanation to a minimum. A distinction was made earlier between potential and aroused motives, and from the definition of the former, it should be immediately obvious that it cannot be directly measured but can only be inferred from the latter. Aroused motive is, however, extremely sensitive to changes in stimuli. It has been shown very early that TAT scores can be varied

significantly by changing the nature and content of the preamble to the test sessions as well as the general atmosphere of the test situation (McClelland, Clark, Roby, and Atkinson, 1949). Since the primary goal of this research is to measure the differences in potential motivation among various groups, it was felt desirable to administer the test under normally aroused conditions. That is, it is assumed that under normal conditions, for example, a routine school day, there is for each individual some normative level of motivation which is a function of his potential motivational level. Quite obviously the presence of the researcher and the test situation itself were a deviation from the norm but by keeping the preamble to a minimum the chance of inadvertently affecting the level of motivation was also kept at a minimum.

CHAPTER THREE

THE PILOT STUDY

In order to test the adequacy of the research design, a small pilot study was carried out under "field" conditions. For this purpose a school with a small student population was selected and the test administered to the Grade 12 male students. The most significant finding of the pilot study was the fact that of the 37 sets of questionnaires given out, only 26 sets were retained as usable which meant that only about 70 per cent of the potentially available information was being tapped. Clearly the research design left something to be desired with respect to its data gathering ability.

In an effort to improve the design, the questionnaires were re-examined with a view to isolating the cause of the large number of rejections. An examination of the rejected questionnaires revealed that they were unacceptable for the following reasons:

1. either the TAT or TAQ, or both, was left incomplete,
2. some of the questions, notably those dealing with the father's occupation and residential area, were left unanswered,
3. instructions were either misunderstood or ignored, and
4. some obvious language problems.

While the occurrence of the first three items is no doubt partially attributable to a breakdown in communications, honest error or to natural sensitivity in answering certain questions, it was felt that they alone were not sufficient to completely account for the high rate of rejections, and that they are also symptomatic of some basic error in the research design.

That there was some basic fault in the research design was painfully obvious in the considerable hostility that the questionnaire and its administration generated among the subjects. It was equally obvious that the fault lay in the manner the research was introduced, or more accurately, in the lack of any introduction. The TAT must have appeared to the subjects as a rather silly exercise from which nothing useful can be gained. The fact that this feeling of frustration was apparently compounded by the rather repetitious nature of the TAQ was apparent from some rather vocal protests from the subjects. By the time Part III of the questionnaire was reached, the subjects were in no mood to answer personal questions. What was needed was a preamble, a "sales pitch", which would gain the confidence and cooperation of the subjects. It was not, however, possible to make a direct appeal for cooperation or to greatly emphasize the importance of the research, as such action may affect the variables being measured. The only viable solution was the introduction discussed in the previous chapter.

Aside from the general research design, the individual research instruments appeared to have functioned fairly well. The analysis of the data, however, raised some questions with respect to the suitability of using Rosen's system of determining the occupational level of aspiration (Rosen, 1959). In this system each occupation listed in the questionnaire is assigned a weight equivalent to the reciprocal of the percentage of the students who said that they would be satisfied with that occupation. It is assumed that the larger the reciprocal, the lower the status of that occupation. The level of aspiration for each individual could then be calculated by summing the weights of the occupations for which he indicated

that he would be satisfied.

The data obtained from the pilot indicated, however, that Rosen's system cannot be adopted for use in the current study as it tended to give rise to misleading results. The problem lay in the fact that for some occupations the subjects, as a group, were unable to clearly establish definite preference and, as a result, the proportions of subjects satisfied with these occupations were very close, and the weights calculated from these proportions were, of course, very similar in magnitude. The problem was compounded by the fact the proportion of "satisfied" and "dissatisfied" responses for any one individual could not be controlled, making it possible for one individual to be satisfied with six of the ten occupations while another may be satisfied with only one. Clearly whether the first individual will rank higher than the second in his level of aspiration is dependent not only on the particular occupations chosen but also on the magnitude of the weights of the respective occupations. If, for example, the five occupations selected by the first individual represented the top five occupations, and that selected by the second individual, the seventh, the former will rank higher in his level of aspiration than the latter only if the sum of the weights of the five occupations is smaller than the weight of the seventh ranking occupation. It is clear that there can be no guarantee that the sum of the weights of the higher ranking occupations will always be smaller than the weight of the occupation lower in rank.

I. In order to avoid this problem a somewhat arbitrary system of weights was devised. The occupations were ranked as in Rosen's system. That is, the occupations were ranked according to the number of "satisfied"

responses they elicited. It was assumed that the greater the number of subjects satisfied with an occupation, the higher that occupation is on the hierarchy of desireability and prestige.

The weights were then assigned to these occupations with the lowest weight assigned to the highest ranking occupation. In order to avoid the type of problem discussed earlier, it was decided that the weights should be selected so that for any given occupation in the hierarchy its weight would be greater than the sum of the weights of the occupations higher in rank. The weights for the ten occupations would, under the scheme to be employed in this study, begin with the value of one for the highest ranking occupation with the weights of each succeeding occupations being equal to one greater than the sum of the weight of the preceeding occupations so that the weight of the lowest occupation in the hierarchy would be 512.

The TAT protocol collected in the pilot also provided an opportunity to test the markers' skill in scoring the stories for achievement and affiliation. The protocols were marked by two markers working independently as recommended in the manual, and rank order correlation calculated. The coefficients of correlation between the two sets of scores were 0.87 and 0.80 for achievement and affiliation respectively. Although it is normal for the correlation coefficient for affiliation to be higher than that for achievement, the coefficients compared favourably with those obtained in other studies, and therefore, it was decided that sufficiently high level of proficiency with scoring technique was reached to ensure that reasonably reliable scores will be obtained in the study itself.

CHAPTER FOUR

RESULTS

The principal findings of the study are presented in this chapter. The modifications introduced into the design as a result of the pilot proved reasonably successful in that the modified design produced 89 per cent usable protocols as compared with 70 per cent for the pilot design. The re-examination of the rejected protocols indicated that they were again incomplete or completed incorrectly. Indications of hostility in the responses as well as during the test sessions were, however, vastly reduced from those which prevailed during the pilot and it was therefore concluded that the incompletions and mistakes were due more to honest errors or to failures in communications rather than to expressions of hostility.

The TAT protocols were duly marked according to the relevant scoring manuals. This task proved to be one of the most tedious aspects of the research. There were six stories for each individual and each story had to be marked twice, once for achievement and again for affiliation, or there were an equivalent of 3948 stories to be marked. The stories were marked by two markers working independently. The rank order correlation coefficients between the two sets of scores were 0.85 and 0.76 for achievement and affiliation respectively. While these coefficients are slightly lower than those obtained for the pilot, it was decided that a sufficient level of score reliability was attained to warrant proceeding with the analysis.

4.1 Ethnicity and Social Class

The distribution of subjects according to ethnicity and

social class is as shown in Table I.

TABLE I ETHNIC AND SOCIAL CLASS DISTRIBUTION

| Ethnicity | Social Class | | | Total |
|----------------|--------------|-----|-----|-------|
| | 1 | 2 | 3 | |
| English | 14 | 53 | 28 | 95 |
| Scottish | 2 | 11 | 7 | 20 |
| Irish | 2 | 8 | 4 | 14 |
| East Europeans | 4 | 13 | 7 | 24 |
| Scandinavians | 1 | 10 | 6 | 17 |
| Germans | 3 | 13 | 15 | 31 |
| Italians | 0 | 5 | 8 | 13 |
| Jewish | 8 | 1 | 0 | 9 |
| Dutch/Russians | 1 | 4 | 6 | 11 |
| Chinese | 4 | 15 | 45 | 64 |
| Japanese | 0 | 2 | 4 | 6 |
| Others | 0 | 17 | 8 | 25 |
| Total | 32 | 152 | 138 | 329 |

With reference to Table I it should be pointed out that it was not always possible, from the data available, to clearly establish the subject's ethnicity. In general this kind of problem was encountered with subjects of European origin whose ancestry is so highly mixed that it was extremely difficult, and at times impossible, to state with any degree of certainty which of the many ancestral ethnic groups should be singled out as representative of the ethnicity of the present generation. The problem was compounded by the fact that many of these subjects and their parents spoke no language other than English and lacked any definite religious affiliation which would have aided the researcher in establishing their cultural orientation.

In order to alleviate this problem to some extent and to introduce some degree of consistency, it was decided to define ethnicity in terms of the ethnicity of the maternal side of the family. The rationale behind this decision is the assumption that, in most cases, it is the mother to whom the child is exposed most frequently and for longest periods of time during its formative years, and it is the mother's values and attitudes which the child internalizes.

It should also be pointed out that it was at times necessary, because of the small number of observations in some of the ethnic groups, to combine them into larger cultural groups. The criterion in this case was, of course, cultural similarity. The constituent ethnic groups of the cultural groups shown in Table I are as follows. The numerals in brackets indicate the number of subjects in each of the ethnic groups.

1. East Europeans: Czechoslovakian (1), Hungarian (1), Lithuanian (1), Polish (8), Rumanian (1), Russian (3), and Ukranian (3).
2. Scandinavians: Danish (2), Dutch (5), Finnish (4), Norwegian (4), and Swedish (2).
3. Dutch/Russian: These subjects all spoke German and all shared Dutch and Russian ancestry. In the absence of other information it was decided to treat this group as a distinct ethnic group of its own.
4. Others: This group consists of those subjects whose ethnicity was impossible to determine (15) and of other ethnic groups which were not represented in sufficiently large numbers to justify treating them as separate groups and which could not be conveniently combined into larger cultural groups. These included Burmese (1), French (1), East Indians (2), Native Indian (1), and French-Canadian (4).

4.2 Motivational Groups and Mobility

It would be recalled that the first hypothesis predicted that the ethnic groups would fall into one of the following motivational groups with varying patterns of achievement, affiliation and avoidance motives.

- | | |
|-----------|--|
| Group I | achievement motive is strong relative to avoidance motive and affiliation motive is strong |
| Group II | achievement motive is strong relative to avoidance motive and affiliation motive is weak |
| Group III | avoidance motive is strong relative to achievement motive and affiliation motive is strong |
| Group IV | avoidance motive is strong relative to achievement motive and affiliation motive is weak. |

In classifying the ethnic groups in accordance with the above scheme, the median for each motivational variable was determined for each ethnic group and compared against the corresponding medians calculated for the entire sample (sample median). Whether a given motivational variable of a particular ethnic group is strong or weak was determined by comparing the median for that ethnic group against the corresponding sample median. The group with median greater than the sample median was considered strong in that particular motivational variable, and vice versa. In the event both achievement and TAQ scores for any ethnic group were either above or below their respective sample medians, their resultant achievement motive was calculated to determine the group's motivational orientation. The results are tabulated in Table II.

TABLE II MEDIAN MOTIVATIONAL SCORES BY ETHNICITY

| | Motivational Medians | | | Mot. Group | | | |
|----------------|----------------------|-------|-------|------------|----|-----|----|
| | n-Ach | n-Aff | TAQ | I | II | III | IV |
| English | 1.0 | 4.0 | 249.0 | | | x | |
| Scottish | 1.5 | 4.5 | 236.5 | x | | | |
| Irish | 0.5 | 4.0 | 242.5 | | | x | |
| East Europeans | 0.5 | 4.5 | 241.0 | x | | | |
| Scandinavians | 3.0 | 4.0 | 246.0 | x | | | |
| Germans | 1.0 | 3.0 | 242.0 | | x | | |
| Italians | -1.0 | 4.0 | 241.0 | | | x | |
| Jewish | 1.0 | 6.0 | 246.0 | | | x | |
| Dutch/Russians | 5.0 | 3.0 | 238.0 | | x | | |
| Chinese | 0.0 | 3.0 | 239.5 | | | | x |
| Japanese | 0.5 | 2.0 | 251.5 | | | | x |
| Others | -1.0 | 3.0 | 242.0 | | | | x |
| Sample Medians | 1.0 | 3.0 | 244.0 | | | | |

While Mann-Whitney U test indicated that the differences among the medians of achievement scores are not significant at 0.05 level, some expected patterns are apparent in the achievement scores. The Irish with their probable Catholic background; East Europeans with their agrarian tradition coupled with their Catholic affiliation; Japanese, Chinese, and Germans with their emphasis on family solidarity all scored low in achievement motivation. The Italians who scored low in other studies also scored low in this study. On the other hand, the Scandinavians with their traditional independence scored, not surprisingly, high in achievement motivation.

There are, however, unexpected results as well. The Jewish are noted for their rapid upward movement in the prestige structure of the society, a fact supported by a number of studies in which the Jewish subjects consistently obtained high achievement scores. It was, therefore, surprising to find that this group scored relatively low in achievement motivation.

In an attempt to reconcile this unanticipated result with those of other studies, the social backgrounds of these Jewish subjects were re-examined. It is significant that of the nine Jewish boys who participated in the survey, eight were from upper class families with the remaining one coming from a middle class background. In this respect, Crockett's comments are revealing (Crockett, 1962). He argues that the large scale, bureaucratic work setting which tends to reward cooperative and harmonious relationships is replacing small-scale, entrepreneurial work-setting which tends to reward individual, competitive behaviour. As a consequence a strong affiliation motive is becoming more significant determinant of occupational success than a strong achievement motive. The occupationally successful individuals as parents of upper class families, therefore, tend to stress affiliation as a desirable personality characteristic to be instilled in their children. It is possible that the low achievement scores of the Jewish children in this study is a reflection of this tendency. The fact that these boys scored very high in affiliation motive would appear to lend partial support to this argument.

Table II also shows the distribution of ethnic groups according to their differences in the relative strengths of the other two motivational measures. The differences are again not significant at 0.05 level.

In preparation to test the second hypothesis that the differential rate of mobility is related to differences in motivational configuration, the scores of the ethnic groups with similar configuration

of motive strengths were combined, and the combined medians of the three motivational measures were calculated for each of the four motivational groups. The results are shown in Table III. A series of Mann-Whitney U's computed to test for the significance among the medians

TABLE III MEDIAN MOTIVATIONAL SCORES
BY MOTIVATIONAL GROUPS

| | I | II | III | IV |
|-------|-------|-------|-------|-------|
| n-Ach | 1.0 | 1.0 | 0.0 | 0.0 |
| N-Aff | 4.0 | 3.0 | 4.0 | 3.0 |
| TAQ | 240.0 | 241.5 | 247.0 | 241.0 |

showed that none of the differences were significant at 0.05 level.

The hypothesis, however, concerns the relationship between these differences and levels of aspiration. Table IV shows the median vocational scores and the proportions of subject in each motivational group aspiring to the various educational levels.

TABLE IV MOTIVATIONAL GROUPS AND
LEVELS OF ASPIRATION

| Group | Voc. Asp. | Ed Aspiration Level | % |
|-------|-----------|------------------------|------|
| I | 131 | no university | 60.6 |
| | | university | 39.4 |
| II | 143 | no university | 32.9 |
| | | university | 57.1 |
| III | 131 | no university | 45.8 |
| | | university | 54.2 |
| IV | 188 | no university | 36.8 |
| | | university | 63.2 |

Before proceeding with the discussion of Table IV the hierarchy of occupations as obtained in this study should first be briefly

considered. For illustrative purposes the ranking as obtained in this study is shown in Table V

TABLE V HIERARCHY OF OCCUPATIONS

| Occupation | % | Weight | Rank | NORC |
|---------------------|------|--------|------|------|
| Lawyer | 70.9 | 1 | 1 | 1 |
| Pharmacist | 59.7 | 2 | 2 | 2 |
| Machinist | 58.8 | 4 | 3 | 4 |
| Jewelry Store Owner | 51.5 | 8 | 4 | 3 |
| Bus Driver | 43.0 | 24 | 5.5 | 10 |
| Dept. Store Sales. | 43.0 | 24 | 5.5 | 9 |
| Insurance Agent | 40.9 | 64 | 7 | 6 |
| Bank Teller | 34.8 | 128 | 8 | 5 |
| Bookkeeper | 22.7 | 256 | 9 | 7 |
| Mail Carrier | 17.9 | 512 | 10 | 8 |

together with that obtained in a study carried out by the National Opinion Research Center (National Opinion Research Center. "Jobs and Occupations; A Popular Evaluation." Opinion News, Sept. 1, 1947, 9.).

In all probability the reversals in the relative positions of machinist and jewelry store owner and of insurance agent and bank teller are due to chance and are, therefore, not likely to be significant. Attention, however, is drawn to the curious shift in the status of bus driver and department store salesman from the bottom of the hierarchy which they occupied in the NORC study to the median positions which they now occupy. It is also curious that these two occupations should have shifted together.

The underlying causes of this change in the hierarchy are not clear but are probably due to such factors as natural tendency for preference patterns to change over time and variations in local conditions

relative to those which prevailed for the earlier study. The changes are pointed out principally to illustrate that the structure of the occupational hierarchy, on the basis of which occupational aspirations are determined, is completely different from that in Rosen's study (Rosen, 1959) so that the results are not entirely comparable.

Returning now to the question of the relationship between motive configuration and vocational aspiration, it can be seen from Table IV that the hypothesized relationship is in general sustained. As predicted, both Groups II and III show high levels of occupational aspirations relative to Group IV which, it was anticipated, would score low on aspiration. The high level of aspiration of Group I was also expected although in this instance the high level of aspiration may or may not be translated into a concomitantly high level of performance. A series of Mann-Whitney U tests calculated to test for the significance in the differences in medians of vocational aspiration scores indicated that the differences between the medians of Groups I and IV and of Groups III and IV are significant at 0.05 level but not the difference between Groups II and IV.

Rosen had suggested the possibility that the differences in motivation are more significantly related to the lower limits of the occupational hierarchy which a group or an individual considers satisfactory than the actual "height" of the aspiration level. In support of this hypothesis Rosen reported that at least 80 per cent of the mothers in all ethnic groups indicated that they would be satisfied to have their sons be lawyers which was the most prestigious of the ten occupations used in

Rosen's study. Rosen went on to report that in comparison, only two per cent of the Greeks and seven per cent of the Jews, who were the two most highly achievement oriented groups, were content to have their sons become bus drivers, the least prestigious occupation in this particular study, as compared with 26 per cent of the French-Canadians and 43 per cent of the Negroes (Rosen, 1959).

In order to test Rosen's hypothesis further, the "satisfied" responses to each occupation were broken down into appropriate groups as shown in Table VI which shows the proportions of the subjects in various motivational groups who replied that they would be content to find themselves in each of the ten occupations in the hierarchy. The results shown under social class headings can for the moment be ignored. While the relevant results follow the expected pattern, with the highest percentage (25.3 per cent) of the subjects in Group IV being satisfied with the least prestigious occupation as compared with 14.8 per cent, 10.0 per cent, and 13.0 per cent for Groups I, II and III respectively, they are not as dramatic as those found in Rosen's study. In fact the Chi square test indicated that only the difference between Groups III and IV is significant at 0.05 level. The results cannot, therefore, be considered conclusive.

Consideration can now be given to the measurement of aspiration levels in terms of educational goals. The subjects were asked a question regarding their educational objectives which they were required to answer in terms of educational levels indicated in the questionnaire. The different levels of educational levels used in this study are as

follows: no formal educational or training beyond high school, vocational school training, university, and post graduate work. For the purpose of analysis the subjects in each motivational group were dichotomized into those whose educational plans do not include university education and those whose plans include university education or higher. The results are tabulated in Table IV under the heading "Educational Aspiration". The expectation here was that the results obtained for the occupational aspirations would be reflected in educational scores. That is, it was expected that a higher proportion of subjects in groups with relatively high levels of achievement and/or affiliation motivations would aspire to higher levels of education than the proportion of subjects in groups with relatively low levels of motivations.

The results, however, are contrary to expectations. Group IV with its relatively low achievement and affiliation motives has 63.2 per cent of its members planning to go on to university and higher compared with 39.4 per cent for Group I. The Chi square test indicates that this difference is significant at 0.05 level. These results are doubly surprising when considered with the fact that the occupational level of aspiration for Group IV is the lowest among the four motivational groups with the score of 188 while that of Group I is among the highest with the score of 131, a difference which is significant at 0.05 level. It might be pointed out that the proportion of subjects in Group I aspiring to the higher educational level is significantly lower than those in Groups II and III as well. While the proportions of subjects in Groups II and III planning to go on to university or higher (57.1 per cent and 54.2 per cent respectively) are also lower than that in Group IV, the differences are not significant at 0.05 level.

These results, however, do not necessarily warrant the conclusion that motivation and educational aspirations are unrelated. It is perhaps significant, for example, that there is a near perfect negative relationship between educational and vocational aspirations. These results, therefore, should be construed to mean that there is a more complex relationship between motivation, vocational aspirations and educational objectives than originally anticipated.

4.3 The Effect of Social Class

As discussed earlier there are evidence to support the argument that differential levels of motivation are more significantly related to social class than to ethnicity. If this argument is valid, conclusions drawn from observations in which social class is not taken into consideration may be misleading since the observed differences are due to variations in both ethnicity and social class. Since the question of the relative importance of social class and ethnicity in the development of personality traits is not the primary concern of this paper, the impact of social class can be eliminated by the simple expedient of holding this variable constant and allowing only the ethnicity to vary.

Table VII is the equivalent of Table III with class controlled. That is, it shows the medians of the various motivational indices for each motivational group in each of the three social classes. For comparative purposes data calculated earlier for Table III is again shown under the column headed "Group Medians".

TABLE VI - PERCENT "SATISFIED" WITH EACH OCCUPATION:

| ALL FIGURES EXPRESSED IN PERCENTAGES | | | | | SOCIAL CLASS 1 | | | | SOCIAL CLASS 2 | | | | SOCIAL CLASS 3 | | | |
|---|--------------------|------|------|------|--------------------|------|------|------|--------------------|----|------|------|--------------------|----|------|----|
| | MOTIVATIONAL GROUP | | | | MOTIVATIONAL GROUP | | | | MOTIVATIONAL GROUP | | | | MOTIVATIONAL GROUP | | | |
| | I | II | III | IV | I | II | III | IV | I | II | III | IV | I | II | III | I |
| LAWYER | 72.1 | 73.8 | 70.2 | 60.0 | | 50.0 | 86.6 | 90.0 | 74.6 | | 71.7 | 59.4 | 75.0 | | 52.1 | 59 |
| PHARMACIST | 59.0 | 50.0 | 58.8 | 63.2 | | 75.0 | 60.0 | 60.0 | 58.2 | | 66.0 | 56.2 | 70.0 | | 41.7 | 63 |
| MACHINIST | 55.7 | 57.1 | 55.0 | 66.3 | | 75.0 | 46.6 | 40.0 | 52.2 | | 56.6 | 59.4 | 65.0 | | 67.4 | 66 |
| JEWELRY STORE OWNER | 60.6 | 50.0 | 54.2 | 43.2 | | 50.0 | 60.0 | 50.0 | 53.7 | | 62.3 | 46.9 | 55.0 | | 45.6 | 45 |
| BUS DRIVER | 32.8 | 45.4 | 43.5 | 43.2 | | 50.0 | 20.0 | 35.0 | 38.8 | | 39.6 | 25.0 | 35.0 | | 52.1 | 54 |
| DEPT. STORE SALES | 50.8 | 42.8 | 41.2 | 38.9 | | 50.0 | 40.0 | 30.0 | 47.6 | | 47.2 | 31.2 | 40.0 | | 47.8 | 44 |
| INSURANCE AGENT | 41.0 | 45.4 | 37.4 | 43.2 | | 25.0 | 53.3 | 35.0 | 46.3 | | 35.8 | 53.1 | 40.0 | | 34.8 | 38 |
| BANK TELLER | 29.6 | 30.9 | 38.2 | 36.8 | | 0 | 20.0 | 25.0 | 32.8 | | 45.3 | 37.5 | 15.0 | | 43.5 | 38 |
| BOOKKEEPER | 19.7 | 22.7 | 23.7 | 25.3 | | 25.0 | 13.3 | 15.0 | 23.9 | | 24.5 | 37.5 | 25.0 | | 23.9 | 18 |
| MAIL CARRIER | 14.8 | 19.0 | 13.0 | 25.3 | | 0 | 20.0 | 10.0 | 16.4 | | 12.4 | 12.5 | 10.0 | | 17.4 | 30 |

TABLE VII SOCIAL CLASS AND MEDIAN MOTIVATIONAL SCORES

| | n-Ach | | | | n-Aff | | | | TAQ | | | |
|-----|--------------|--------------|-----|-----|--------------|--------------|-----|-----|--------------|--------------|-------|-------|
| | Grp. Med. | Social Class | | | Grp. Med. | Social Class | | | Grp. Med. | Social Class | | |
| | | 1 | 2 | 3 | | 1 | 2 | 3 | | 1 | 2 | 3 |
| I | 1.0 | | 1.0 | 1.5 | 4.0 | | 5.0 | 4.0 | 240.0 | | 239.0 | 236.5 |
| II | 1.0 | 5.5 | - | - | 3.0 | 1.0 | - | - | 241.5 | 256.0 | - | - |
| III | 1.0 | 1.0 | 0.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 247.0 | 246.0 | 246.0 | 250.5 |
| IV | 0.0 | 0.0 | 0.0 | 2.0 | 3.0 | 2.5 | 3.0 | 2.0 | 241.0 | 247.5 | 241.0 | 245.0 |

m It is unfortunate that not all cells are filled but the available data suggest that, in general, motivational levels remain relatively stable from one class to another, and that the class medians do not vary a great deal from group medians. These results would appear to suggest that class is not a significant determinant of motivational levels, a conclusion which is contrary to those of other studies. It should be pointed out, however, that in order to obtain these results the scores of subjects with similar motivational configuration were combined, and this would tend to obscure any inter-class differences that may exist so that a great deal of emphasis cannot be placed on the failure of the results of other studies to be replicated here.

When comparisons are made among the scores of the motivational groups within a given social class, it is found that inter-group differences are present but again are not significant at 0.05 level except for the difference in achievement motivation between Groups II and III in Social class 1. When an attempt is made to relate these differences in motivational configuration to occupational aspiration, it is found that the predicted relationship is present in Social Classes 2 and 3 but not in Social Class 1 (Table VIII). In the lower two classes both groups I and III, characterized

TABLE VIII. OCCUPATIONAL ASPIRATION AND SOCIAL CLASS

| | Social Class | | |
|-----|--------------|-------|-------|
| | 1 | 2 | 3 |
| I | - | 131.0 | 78.0 |
| II | 71.0 | - | - |
| III | 105.0 | 151.0 | 181.0 |
| IV | 59.0 | 175.5 | 214.5 |

by strong achievement and/or affiliation motives, set high levels of aspiration relative to Group IV, the group characterized by high anxiety level and weak achievement and affiliation motives. These results conform to those obtained earlier in this study and lends support to the hypothesis that both achievement and affiliation motives are related to goal setting behaviour. The results pertaining to Social Class 1, however, indicate that this relationship does not apply to the subjects from upper class families. In this class the earlier trend is reversed with Group IV displaying the highest level of aspiration with a score of 59 as compared against 71 and 105 for Groups II and III respectively.

The last results are surprising but it would be recalled that Crockett also experienced a similar problem when he found that achievement motive was related to aspiration among the lower classes but not among the upper (Crockett, 1962). Crockett had suggested affiliation motive as the disturbing factor, but since this variable is taken into account under the present scheme, there would appear to be a need to consider other factors to more fully explicate the reasons for the failure of the expected relationship to persist for all strata of society.

After having presented somewhat conflicting results it must further be reported that the explorations with the other two indices of aspiration again failed to yield positive results. The analysis of the

lower limits of aspiration levels indicate that the expected relationship between motivational configuration and aspiration appears only within Social Class 3. In this class 30.5 per cent of the subjects in Group IV indicated that they would be satisfied to find themselves as mail carriers, the least prestigious occupation in the hierarchy, as compared with 10.0 per cent and 17.4 per cent for Groups I and III respectively. The differences between Groups I and IV are significant at 0.05 level. These results are consistent with Rosen's finding and with the findings of this paper relating to the "height" of aspiration levels. These results, however, do not persist throughout the balance of the sample. It is apparent at this point that factors other than motivational correlates must enter into the determination of the lower limits of aspiration.

With reference to educational aspirations tabulated in Table IX, it is again clear that they are not related in any simple way to either motivational configuration or to vocational aspiration. For example, despite the differences in motivational configuration and vocational aspiration

TABLE IX EDUCATIONAL ASPIRATION LEVELS BY CLASS

| Group | Level | Social Class | | |
|-------|---------------|--------------|------|------|
| | | 1 | 2 | 3 |
| I | no university | - | 47.7 | 40.0 |
| | university | - | 52.3 | 60.0 |
| II | no university | 75.0 | - | - |
| | university | 25.0 | - | - |
| III | no university | 33.3 | 49.0 | 71.7 |
| | university | 66.7 | 51.0 | 28.3 |
| IV | no university | 15.0 | 47.0 | 38.9 |
| | university | 85.0 | 53.0 | 66.1 |

levels observed earlier, the results relating to Social Class 2 show that there is virtually no difference among the motivational groups in the level of educational aspiration. The greatest fluctuation in educational aspirations is found among the motivational groups in Social Class 1. The variations, however, do not conform to any expected pattern. For example, the motivational group with the highest proportion of its members planning to go on to university is Group IV, the group least motivated to achieve. It can be argued that this result is consistent with the Group's high vocational aspiration score but it must be pointed out that Group II, which also scored very high in vocational aspiration, has only 25 per cent of its members planning to attend university. This result is doubly surprising in view of the fact that Group II is one of the achievement oriented groups and was, therefore, expected to show a high rate of upward social mobility. This discrepancy between expected and actual results persist on through to Social Class 3.

The fact that occupational and educational aspirations fail to correspond was also noted by Rosen when he noted that while 83 per cent of the Negro mother intended for their sons to attend college, their mean aspiration score was the lowest of the ethnic groups studied (Rosen, 1959). This raises some questions regarding the validity of using occupations as an index of aspiration and the possibility of a need to consider other variables in measurements of aspirations. The discussion of these questions will be reserved for a later section.

4.4 Ethnic Minorities and the Affiliation Motive

Table X summarizes comparative data relating to motivation and occupational aspiration for culturally dominant and ethnic minority

groups. It is obvious from the examination of Table X that the hypothesis that affiliation motive is stronger among the members of the ethnic minorities

TABLE X MOTIVATION AND ASPIRATION AMONG
DOMINANT AND MINORITY GROUPS

| Social Class | n-Ach | | n-Aff | | TAQ | | Aspiration | |
|-----------------|-------|------|-------|------|------|------|------------|-------|
| | Dom. | Min. | Dom. | Min. | Dom. | Min. | Dom. | Min. |
| N/A | 1.0 | 1.0 | 4.0 | 3.0 | 249 | 241 | 128.0 | 128.0 |
| 1 | 0.5 | 1.0 | 2.5 | 3.0 | 248 | 248 | 37.0 | 94.0 |
| 2 | 1.0 | 1.0 | 4.0 | 4.0 | 244 | 240 | 166.0 | 131.0 |
| 3 | 0.0 | 0.0 | 4.0 | 3.0 | 252 | 241 | 153.5 | 189.0 |

than among those of the culturally dominant group is not supported. The trend is in fact for the exact opposite to prevail. The examination of the other two motivational variables reveals that there is virtually no difference between the two groups.

As a corollary to the hypothesis that affiliation is stronger among the minority groups than among the dominant group, it was postulated that among the former, vocational aspirations would be related more to affiliation than to achievement motivation. The rank order correlation coefficient between affiliation and vocational aspiration indicates, however, that there is virtually no relationship between the two variables. However, the correlation coefficient calculated for resultant achievement and aspiration was also near 0 so that nothing conclusive can be said regarding the relative importance of affiliation and resultant achievement motives as determinants of goal setting behaviour.

It is not, however, clear from these results whether the two groups are in fact similar in their motivational orientations, or whether the observed lack of difference is due to a failure to properly define and isolate the dominant group from the minority group. The definition that the ethnic minorities consist of all those subjects with non-English background

was predicated on the assumption that these subjects are either members of immigrant families or descendants of immigrant families who are exposed to two distinct culture--that of their parents and that of the host society which is basically English in character. Because historically it was typical for the more well established families, in this instance those of English extraction, to occupy the middle and upper echelons of the society and for the immigrant families to occupy the lower echelons, it was assumed that the tendency was for the descendants of the latter group to turn toward and seek to internalize the value system of the former with its apparent association with affluence, and to seek acceptance among its members.

In order for these assumptions to be valid there must exist not only actual cultural differences but also a feeling among the members of both dominant and minority groups that they do in fact belong to two distinct cultural groups. An examination of the composition and character of the sample, however, suggests that this condition may not be satisfied. For example, while some of the subjects who are members of minority groups are first generation descendants of immigrant families, some of them are immigrants themselves, a larger proportion of the sample represents second, third and even older generations of descendants. For this latter group of subjects the process of assimilation may have progressed to such an extent that they can no longer be considered as members of ethnic minorities. While the rate of assimilation is dependent on a host of factors and, therefore, ethnic groups vary widely in their rates of assimilation, it is generally true that the distinction between dominant and minority groups become more and more blurred as generations pass so that the presence of these groups in the sample would tend to confound any results gathered

on the assumption of an existence of cultural differences. It is also conceivable that the results reflect the tendency within the youth subculture to reject the values of the "establishment", irrespective of whether these values are those of the dominant culture or of the minority group, in favour of a third set of values unique to the youth. If this is true the distinction along dominant-minority dimension may not be validly applicable within the youth subculture.

CHAPTER FIVE

DISCUSSIONS AND CONCLUSIONS

While the results indicate that the theory of achievement motivation may be applicable to problems involving socio-economic phenomena, they also show certain theoretical and methodological weaknesses. The major consequence of these weaknesses is the failure of the results to attain statistically significant levels, although some trends toward hypothesized relationships are clearly present.

The major findings of the study show that

1. ethnic groups differ in their pattern of relative strengths of achievement, affiliation and avoidance motives although these differences, for the most part, were not significant at 0.05 level,
2. the hypothesized relationship between differences in motivational configuration and levels of vocational aspiration is present although again the trend is not significant,
3. there would appear to be no simple relationship between educational and vocational aspirations, or between motivational configuration and educational aspirations,
4. when class is taken into account, the vocational aspirations of the subjects from upper class families are apparently related to factors other than achievement or affiliation motive, and

5. that there is no apparent difference between dominant and minority groups in the relative importance of the affiliation motive as a determinant of goal setting behaviour; in fact neither resultant achievement motive nor affiliation motive was found to be significantly related to vocational aspiration.

On the basis of these results it would not be possible to either accept or reject the hypothesis that social mobility is a function of motivation. The results, however, generate certain implications which should be considered.

5.1 Levels of Aspiration and Motivation

It is obviously of critical importance to accurately measure levels of aspiration. In using vocational goals as an index of level of aspiration, it was implicitly assumed, first, that occupations can be arranged in a hierarchy of varying prestige values, and that such a hierarchy represents alternatives of varying difficulty of attainment and incentive values, and second, that the subjects are capable of rationally relating their aspirations in terms of this hierarchy. While it is no doubt possible to rank occupations according to prestige values associated with them, a re-examination of the conditions under which the occupational hierarchy was established, however, raises some questions as to the validity of the assumption that the hierarchy as obtained in this study can be viewed as a representation of varying levels of aspiration. Consider, for example,

the occupation of "machinist". The term itself is vague and it is not certain what sort of occupation the term conjured up in the minds of the subjects. It is possible, however, that the subjects considered the term as being synonymous with the term "mechanic". If this were the case, given the popularity of working with automobiles among the boys of the age group represented in the sample, it would not be illogical to find a large proportion of subjects who had replied that they would be satisfied with being a machinist. The point of this illustration is that a high number of "satisfied" responses to an occupation does not necessarily indicate that it is concomitantly high in status in terms of prestige and difficulty of attainment, but rather may indicate its popularity. Since it is probable that both popularity and prestige elements enter into the determination of the relative positions of the occupations in the hierarchy, it may not be entirely valid to consider such a hierarchy as representing levels of aspiration.

With reference to the second assumption, it was expected that the subjects would select those levels of aspiration which are consistent with their levels of aspiration and/or affiliation motives. It can intuitively be appreciated, however, that because of Man's propensity to dream, the fact that an individual scores high in an aspiration index does not necessarily warrant the conclusion that there is a concomitant need, or intent, to attain the goals implied by the high score. It is for this reason

that Rosen has suggested that it may be misleading to speak of the "height" of aspiration levels and that the lower limits may be more meaningful as an indication of the "true" level of aspiration. While explorations in this direction produced some results which tend to support this suggestion, the evidence cannot be considered conclusive.

There are theoretical considerations which suggest that it would not be possible to meaningfully relate motivational levels to aspiration levels without also taking into account the means available to the individual to attain his goals. The risk-taking model, which seeks to define the relationship between achievement motive and goal setting behaviour, argues that achievement oriented individuals tend to select those goals for which the uncertainties regarding success or failure are at a maximum, while failure oriented individuals tend to aspire to those goals for which the uncertainties regarding success or failure are at a minimum. In this light a high level of aspiration is indicative of either a high level of achievement motive or of anxiety. While this conclusion may appear to be somewhat paradoxical, it can conveniently be used to explicate the peculiar results pertaining to the subjects from upper class families.

The results indicated that while the expected relationship between motivational configuration and occupational aspiration was present for the lower classes, the relationship was reversed for the subjects in Social Class 1. The results are inconsistent with the theoretical expectations.

but it should be also noted that the aspiration scores for the latter group is extremely high relative to the scores for the two lower classes (105 and 59 for Groups III and IV respectively as compared against 151 and 175.5 for corresponding groups in Social Class 2, and 181 and 214.5 for Social Class 3). While it is probable that the relatively high levels of aspiration of the subjects in Social Class 1 are partly an expression of their desire to emulate their parents, it is also probable that they also reflect a very real pressure from the parents to maintain the family status quo by securing high prestige occupations. In this respect the subjective choice available to the subjects from upper class families is restricted to the more prestigious, and hence more difficult to attain, occupations. Whether the level of aspiration that an individual sets for himself is realistic must, of course, be judged in terms of his ability and opportunities available to him to attain his goals. It is not, however, possible from the available data to determine whether the median aspiration score for the motivational groups in Social Class 1 is realistic but some data can be cited which support the possibility that some of them may in fact be unrealistic. For example, since it can be assumed, in the absence of any evidence to the contrary, that within any given social class, motivational groups do not vary significantly with regard to ability and opportunities available, it would be expected that approximately equal proportions of the subjects in each group would aspire to the most prestigious occupation, that is to

become a lawyer. A re-examination of Table VI shows, however, that the proportion for Group IV is 90.0 per cent as compared against 50.0 per cent for Group II, an achievement oriented group. It is interesting to note that the other high anxiety group, Group III, also scored high with 86.6 per cent. While the differences are not statistically significant, these results indicate that there is a tendency for more of the highly anxious individuals to aspire to high occupational goals than the achievement oriented individuals, a conclusion not inconsistent with the preceding argument.

5.2 Some Notes on the Measurement of Motivation

The problems associated with the measurement of motivation are several, all of which tend to confound any attempts at relating motives to performance. The instrument itself is open to some serious methodological and theoretical questions. The thematic apperception test, a class of projective technique, assumes that imaginative material written in response to pictorial stimuli contains elements of the personality of its author and, therefore, evaluations of his personality are possible through the analysis of TAT protocols. While this method of personality assessment has some uniquely useful applications where direct measurements are difficult or impossible, its validity and reliability are still subjects of considerable controversy and scepticism, especially in its non-clinical applications. One of the reasons for the lack of general

acceptance of the TAT is the subjective judgment required in the interpretation of the protocols. While this problem may not present a serious obstacle in clinical situations where trained personnel are available to interpret data obtained under rigidly controlled conditions, the requirement for subjective interpretation places severe restrictions on the general applicability of the TAT. The development of empirically derived manuals for scoring the TAT protocols for achievement and affiliation had meant the introduction of some degree of objectivity with a consequence that the results had become somewhat more acceptable, but it is to be noted that the manuals still leave considerable room for personal interpretation so that it is still necessary to obtain at least two sets of independent scores to ensure that subjective evaluations have been kept at a minimum.

The existence of inter-scorer reliability does not, however, always guarantee the validity of the basic principles involved. In some instances, as was the case for this study, it probably indicates only that a standard procedure was followed in scoring the protocols. It is not being implied that the TAT method of assessing motivations is not theoretically sound, but it must be conceded that while the TAT is probably adequate in detecting large differences or extreme reactions, its ability to make more finer distinctions leaves a great deal to be desired.

Furthermore, there are still some methodological problems associated with the administration of the TAT. For example, it has been shown that the contents of the TAT protocols are sensitive to such factors as the physical characteristics of the stimulus and the serial positions of the pictures presented. The selections and the sequence of the presentation of the pictures are, therefore, important considerations but there is yet no clear understanding of the effects of these factors on response so that it is not possible to systematically select the combination that would be most appropriate for any given experimental situation. It is, therefore, conceivable that, had a different set of pictures been employed in this study, a "better" set of results would have prevailed. It is perhaps an indication of the state of the art that it would not be possible to determine whether this new set of results would be any more "valid" than that which actually prevailed.

It has also been shown that the TAT is extremely sensitive to changes in experimental conditions. It was intended to administer the TAT in a "neutral" experimental atmosphere under the assumption that all subjects are at some normative level of arousal. However, it would appear to be reasonable to assume that a subject's level of arousal is dependent on the situation to which he was exposed, or even on his anticipations about some future events. For example, if he was exposed to some competi-

tive event prior to the test session, or if he anticipates exposure to a similar situation, it would be expected that his level of achievement motive would be aroused beyond his normative level. In this respect his level of achievement motive would be over-estimated relative to other subjects who do not share his experiences. There are other methodological problems, that of contamination was mentioned earlier, associated with the administration of the TAT but they are all difficult to control in a "field" type study.

5.3 Conclusions

The principal results are summarized at the beginning of this chapter. Because the majority of these results failed to reach statistical significance, it is difficult to assess their theoretical implications, but they do raise a number of questions. One of these is the need to consider, within the framework developed for the theory of achievement motivation, the interdependence of motives in determining human behaviour. There is a great paucity of information available in this area, the majority of available literature concentrating on the effect of one type of motive on some specific kind of behaviour (or more specifically achievement motivation and success striving). It is apparently assumed implicitly that there is a one to one relationship between the type of behaviour and motivation. While this approach offers some advantages in isolating certain variables, it com-

pletely ignores the fact that under normal circumstances human behaviour is seldom, if ever, governed by a single motive -- it is probable, for example, that an individual striving for occupational success is motivated by affiliation, power, and possibly other motives and not only by the achievement motive. These considerations would tend to cast doubts on the applicability of the theory of achievement motive in predicting behaviour in non-laboratory situations. Atkinson is quite explicit in stating that the risk-taking model, the operational model of the theory, is applicable only in an idealized situation where only the achievement motivation is aroused. Clearly this condition is not satisfied in the experimental situation which prevailed in this study.

The present research had attempted to incorporate the preceding argument by attempting to relate the configuration of motives, rather than specific motives, to goal setting behaviour. Some of the methodological problems have already been discussed but the research had also lacked sufficient theoretical development with reference to the interaction of the various motives. Some of these points are raised here for further consideration.

1. It has been assumed that achievement and affiliation motives are mutually complementary so that an individual high in both of these motives would show higher aspirations than the individual who is high in only one of them. But what would happen if that individual's

reference group is a low aspiration group? There would obviously be a conflict of tendencies but how would this conflict be resolved? Under what circumstance would the achievement motive prevail, and vice versa?

2. Would there in fact be, as Crockett suggests, a decrement in performance if both achievement and affiliation motives are strong?
3. The literature stimulated by the theory of achievement motivation identifies a power motive in addition to achievement and affiliation motives. If the existence of these three motives is accepted it naturally leads to speculations about the possibility of the existence of other motives, and about whether there is a limit to the number of motives that can be enumerated. This train of thought also leads to the question of whether it would be useful, or even wise, to try to isolate and define all possible motives. It is to be remembered that the drive theorists had followed this route earlier and had floundered in the jungle of their own creations.

It has been argued that the development of the theory of achievement motivation had ignored the fact that behaviour is predicated by a multiplicity of motives. Inasmuch as there is no theoretical development relating to affiliation and other motives comparative to that relating to achievement motive, this approach of studying individual

motives can, however, still be useful. Following the precedence set by the risk-taking model, it would be expected that an affiliation oriented situation would arouse two opposing tendencies. One of these, of course, is the affiliation motive itself, but what of the other? Would it be necessary to invoke an avoidance motive, say the fear of rejection, or would it suffice to assume that the fear of failure can adequately be adapted for the situation (insofar as the attainment of affiliation goals can be conceived as "success" and rejection as "failure")? Similar argument can be made for the power motive (fear of being dominated?) and all other motives that may be postulated in the future.

The points and questions raised in this study suggest a need to jointly develop a more adequate instrument to measure motives and performance indices, and a comprehensive theory of motivation. At this point it would appear that neither the achievement motive nor the configuration of achievement and affiliation motives is adequate to satisfactorily explicate complex social phenomena.

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