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Repeated geographical mobility: I. Perspective. li. Effects and coping styles.

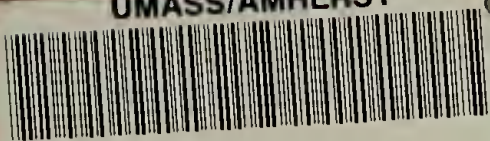
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REPEATED GEOGRAPHICAL MOBILITY:

I. PERSPECTIVE

II. EFFECTS AND COPING STYLES

A Thesis Presented

By

DENISE JEANNE GELINAS

Submitted to the Graduate School of the
University of Massachusetts in partial
fulfillment of the requirements for the degree of

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April 1974

Psychology

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April 1974

- Dedication to -

my family, all of them

but especially to Victor M. and Jeanne C. Gelinas

for their love and strength

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I N T R O D U C T I O N

Our society is widely regarded to be mobile, with mass migrations to the West Coast, into the cities and more recently, back onto farms. Business Week's executives suggest a new influx of professionals into the South and Toffler's book Future Shock was a best seller. Investigation into this characteristics of our society has produced reasonable consensus on demographic variables.

Since the end of World War II, approximately 20% of the U.S. population has moved annually (Landis and Stoetzer, 1966; Shryock, 1964; Taeuber and Taeuber, 1968; Toffler, 1970); this represents some 36,600,000 people moving, one-third of whom made long-distance moves. This proportion of one-third long distance, two-thirds short distance moves has held since at least the decade of the 1930's. From 1935-1940, an extensive rural and urban population redistribution occurred, with sixty percent of all relocations being intra-state.

This mobility is by no means a purely American phenomenon; England, Wales and France are experiencing an accelerating rate of migration, to the point where fully twenty-five percent of those people living in Kensington have done so for less than one year (Toffler, 1970).

Interestingly, the high mobility rate of twenty percent per annum is not distributed evenly over the population. The large volumes of migration attributed to Americans may char-

acterize highly mobile sub-cultures, while the majority is geographically stable (Goldstein, 1954). In one extensive study the average number of relocations among families of college students is only 1.8. On the mobile extreme, two percent of the population has moved eight or more times, elevating the per annum rate for the country as a whole (Whitney and Griggs, 1958; Morrison, 1968; Toffler, 1970). R. Clarke (1970) suggests that individuals who have moved once are more likely to move again than individuals who have not moved; although not directed to Clarke's contention, data from Landis and Stoetzer (1966) support it; further Morrison (1968) suggests that length of time in the community is negatively correlated with the probability of moving again.

Consensus exists, then, that the high migration figures are largely attributable to a small group of highly mobile people; within this group, it seems reasonable to assume that mobility has eventually colored their coping patterns and personalities (or is itself a coping pattern). This sample is attractive in terms of research because they are an easily identifiable, discrete group, involved in the extreme end of a quantifiable process. The process of migration and adaptation is of considerable importance and shows no sign of diminishing in the foreseeable future. Oddly enough, though, very little work has been done on high-frequency migration. The present study hopes to somewhat alleviate this deficiency. In particular, how would repeated moves during childhood and

adolescence affect later coping styles, friendships, achievement, and trust.

REVIEW OF THE LITERATURE

There is an extensive and complex literature on migration which will be reviewed to give perspective on the field and to provide a context for hypotheses about the subset of repeated migraters. Toward this end, all Psychological Abstracts from Volume I, 1927, to Volume 46, 1972, inclusive, were systematically consulted and all applicable research was reviewed in the referred journals. Assorted books, articles, and supplementary materials are also included.

Attempts to Conceptualize Migration

In general, attempts to explain migration have progressed from one-factor models to multi-factorial and probabilistic explanations. During the period from 1933-1949, several attempts were made using single-factor theories; for example in 1933 Jenkins strongly emphasized the relative attraction of various urban centers in determining mobility of local populations.

Another important single-factor model was Stouffer's (1941) "intervening opportunities" approach relating distance and mobility. He hypothesized that "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities" (p. 846). His empirical results in Cleveland proved to be close enough to predictions

to encourage a spate of work, using refinements (Bright and Thomas, 1941), which supported intervening opportunities approaches, except for two large discrepancies, California and Florida. Refinements began to include concentric rings of distance (Strodbeck, 1949, 1950), then later population/distance potentials.

Gradually, the role of distance began to assume importance and concurrently, the models became more sophisticated as research progressed. Bogue and Thompson (1949) demonstrated a close relationship between distance travelled and migration out of the area (differences between urban and rural areas, sexes, or white and non-white populations were seen as only minor variations on the theme of distance). Later work (Rose, 1958; Stub, 1962) demonstrated the importance of socio-economic status on distance moved; higher status groups (e.g., professionals and managers) tended to migrate longer distances than lower status groups as judged by occupation.

After intervening opportunities and distance approaches, attempts were made to compare (Anderson, 1955), then synthesize models (Anderson, 1956), with recognition that no definitive theory was likely to be forthcoming. Multi-factored models began to appear. Anderson (1956) concluded that:

Variations in the rate of in-migration, out-migration and total migratory activity between metropolises in the northeastern and north-central regions of the United States, 1935-1940, may be sub-

stantially explained by four independent measures derived from two theories of migration: 1) percentage of unemployed in the labor force; 2) the mean rent, 3) population size, and 4) location of the metropolis (p. 459).

Stub (1962) also synthesized models by indicating that lower status migrants find larger numbers of "intervening opportunities" in a given distance than do upper-status individuals.

In short, the methodological trend was toward greater complexity and the findings implicated opportunity, distance, status, sex, color and occupation in migration.

A somewhat different, purely theoretical, approach has been presented (Peterson, 1958), which used broad typologies for classifying human migration. Though somewhat peripheral to the material previously presented, it does have interest to later findings. Peterson has classified migration as primitive, forced, impelled, free, and mass; primitive migration is decided primarily by food supplies. Forced migration is decided by actual force, e.g., prisoner, slave, displacement due to direct effect of occupying armies, whereas impelled migration has some element of choice (migration because of tax discrimination; before an occupying army is established, under some form of threat). Free migration means that the will of the migrant is the decisive factor. Finally mass migration is where migration has become the style, an established pattern, an example of collective behavior. The growth of mass migration is semi-automatic; when migration has been set as a social pattern, it is no longer relevant

to inquire concerning the individual's motivation.

In view of the previously described demographic data, it seems as though we are dealing with migration that has slid from free to mass, where the will of the individual is no longer the decisive factor and where some form of coercion is once again present, as in impelled, forced and primitive migrations. Coercion in mass migration seems closely related to occupation, color, age and education in migration.

All the preceding theories have addressed themselves to the reasons for migration rather than its effect. Recently, interest has verred toward ascertaining the consequences of mobility on the overall adjustment of the individual especially as pertaining to occupation (Toffler, 1970) or to psychiatric disorder. Kantor (1965) has written about migration and consequent mental illness, conceptualizing the adaptation process as a function of four primary variables in migration, namely the characteristics of the sending community, the receiving community, the individual, and the circumstances of the move.

Antecedents or Determinants of Migration

Review of conceptual work on mobility has made it painfully obvious that there is no single antecedent of mobility; rather, there are a number of important inter-related variables that increase or decrease the probability of migration and also affect the characteristics of that migration. Some

operate on demographic levels, other on social and/or individual levels (Butler, Sabagh and Vanarsdol, 1964). There have been mass movements on a demographic scale, e.g. immigration to the U.S. prior to restrictive quotas, and relocation during the Depression; Toffler (1970) discussed the two large patterns of East to West and South to North migration of the highly educated. Butler's social level migration is best seen where, in 90% of all families that moved, a distance move is followed by one local move; further, if a family makes N moves, the Nth move will be for status. Also, the time of greatest mobility is early in a marriage (Whitney and Griggs, 1958).

The role of education has been of great importance as a determinant of migration; while cognizant of the many variables that must be considered in the decision to move, education seems to be the best single predictor of probability of migration, particularly during early adulthood. In general, the greater the amount of education, the greater the probability of migration. This pattern holds true for migration out of the South (Soval and Hamilton, 1965), away from farms (Hamilton, 1958, 1959), and both into and out of small towns (Gist, Pihlblad and Gregory, 1943; Mauldin, 1940; Pihlblad and Gregory, 1957). The relationship between degree of education and migration varies according to age, sex, color and areas of the country. Hamilton (1958, 1959) indicates that in the 1940's, while migration away from the farms was gene-

rally selective of the best educated youth, net migration out of the South was higher for the best and the most poorly educated white groups, but high primarily for well educated, and not poorly educated, black groups. Later work by Soval and Hamilton (1965) again demonstrated this selection from the higher educational categories leaving the Southern regions; in particular highly educated young, black men were most likely to be geographically mobile.

Again, in dealing with towns and cities, the more formal education the greater tendency to migrate, which was especially true of professionals, students and skiller workers (Gist, Pihlblad and Gregory, 1943; Pihlblad and Gregory, 1957). Mauldin demonstrated though (1940) that the relationship between academic achievement and migration held only for those of superior achievement; there was little difference between the mobility rates of those groups of average achievement, and those groups of below average academic achievement.

Intelligence is also an important factor related to mobility; here again migration is selective of the most intelligent (as measured before migration). There is, furthermore, a positive relationship between distance of move and size of metropolitan community and degree of intellectual acumen (Gist and Clark, 1938; Gist, Pihlblad and Gregory, 1943). The intelligence-migration relationship has also been demonstrated in Germany, Switzerland, Sweden and England (Kunstle, 1938; Brugger, 1939; Hussen, 1948; Brown, 1957,

respectively).

Occupation is often a major determinant of mobility, with professional, technical and upper-level bureaucratic-management occupations showing the highest mobility figures (Gist, Pihlblad and Gregory, 1943; Meade, 1970; Toffler, 1970); mobility is detrimental to manual workers where seniority or opening a small business are hallmarks of advancement (Litwak, 1960). Approximately 40% of geographical moves are motivated primarily by economic reasons and 38% by desire for better opportunities or chances for advancement; 80% had job guarantees (Landis, 1966).

Socio-economic status (SES) is the last of the major determinants of the inter-related group of education, intelligence, occupation and socio-economic status. In general, both socio-economic extremes have elevated mobility rates, with upper socio-economic status groups experiencing more moves than either middle or lower groups. Hall (1966) indicates that older people of low socio-economic status are geographically stable, but this finding seems not to take proper account of the age variable; typically, older people are less migratory than younger groups. It is difficult in Hall's case to parcel out the effects of age versus those of socio-economic status. A pattern appears in which the upper socio-economic status groups move for "positive" reasons, e.g. to suburbs from urban environments (Hendrickson, 1967) or to neighborhoods viewed as socially superior (Butler et al.,

1964). High frequency mobility among lower socio-economic groups, however, seems more random and characterized by an air of moving away from something rather than towards a positive situation. For instance, Hendrickson's study in Baltimore demonstrated inflated rates of mobility to be associated with low socio-economic status, low mental ability and achievement, repetition of grades, poor housing and referrals to social service agencies; his groups moving to suburbs, as previously mentioned, were of higher socio-economic status. Brown (1960) includes these social considerations when he discusses the probability of moving as a function of unfavorable attitudes toward the place of origin (whether because of poor housing, economic depression or political repression, etc.) and a positive attitude toward the place of destination (e.g. the suburbs, or locale of a new job). Experience of people living in the place of destination seems important in initiating the process.

Brown's work and Kantor's conceptual model of mobility have a good deal in common. Brown's consideration of attitudes toward places of origin and destination seem akin to Kantor's discussion of the characteristics of the sending and receiving communities. Her "circumstances of the move" seems to be a later expression of Brown's awareness of the importance of prior migrants' experiences.

Literature search on racial or color factors as antecedents revealed relatively few studies and these dealt with the

black and white color groups, giving short shrift to yellow and red groups. In general, data are interpretable in terms of socio-economic factors rather than racial factors. For instance, urban black groups within Baltimore exhibit higher mobility rates than white groups (Hendrickson, 1967). Gross migration to and from the South is greater for whites of all educational levels, but net migration out of the South is greatest for blacks (Soval and Hamilton, 1965). Among net migrants from the South, whites are characterized by both educational extremes and blacks by the upper levels of education (Hamilton, 1959). Nationally, blacks have been less migratory than whites, especially for very short distances (2-600 miles) and very long distances (over 2000); here again historical socio-economic factors are probably of primary importance (Bogue and Thompson, 1949).

In general urban populations are more mobile, with distance restricting their movement less (Bogue and Thompson, 1949). Urbanites tend to have the highest rates of education which further boosts their migratory propensity (Burchinell and Jacobson, 1963); they are more likely to move again than even suburbanites, to live in single person households, have younger heads of household, and be dissatisfied with the neighborhood (Butner et al., 1964). They seem to be simply, in a word, younger.

Age is an important antecedent variable and typically very early adulthood is the time of highest mobility rates

(Butler et al., 1964; Hall, 1966; Landis, 1966; Soval and Hamilton, 1965; Whitney and Griggs, 1958) particularly ages 15-29 (Hamilton, 1958, 1959), where there is the strongest interaction with education. During youth is the time of greatest general mobility, but repeated migration is characteristic of the 20's and 30's when occupational advancement often demands re-location. The exception to the younger age pattern seems to be unmarried urbanites over 35; they move more frequently than suburbanites (Butler et al., 1964) which is not surprising. The overwhelming majority of repeatedly mobile persons, however, is in the 20-40 age range.

Sex seems to be a relatively minor variable in its effects on the decision to migrate. Typically census information shows males and females have the same rates for in-state migration, but as distance increases, progressively more men than women migrate (Bogue and Thompson, 1949). The selection of intelligence is remarkably similar for both sexes, with males migrating to medium size cities and females to cities of less than 10,000; women are more migratory than men in farming communities because of job scarcity (Gist, Pihlblad, and Gregory, 1943). More men than women move out of the South (Soval and Hamilton, 1965) which can probably be construed as an effect of distance.

Consequences of Migration

Antecedents of mobility were primarily demographic and

included: education and intelligence, occupation and socio-economic status, color, sex, age, and rural or urban point of origin. Consequences of mobility must necessarily fall under different categories, that is they are some of the effects of mobility: for instance, while chronological age is a significant factor in the probability of migration, age does not generally change as a function of travel (with the currently rare exception of space travel). Similarly, sex is very rarely changed, except in cases, which are becoming more common, of travel to one of several medical centers offering sex-changing surgical reconstruction. Color change is not actually a consequence of mobility, though the social valuation of any particular color is subject to change over locales. For present purposes, however, age, sex, and color are held to be immutable and not subject to changes as a function of migration.

Occupation, intelligence and socio-economic status are quite likely to be affected by migration and there is literature documenting these changes; there is also a body of literature concerned with personal adjustment and psychiatric casualty that will be reviewed. Not surprisingly, there is almost no prospective or longitudinal work on adjustment and health prior to, and influencing, the decision to migrate. All work in this area investigates poor adjustment and casualty as a possible consequence of migration.

Mobility has generally been found to have an enhancing

effect on upward occupational mobility (Burchinal and Jacobson, 1963). In a sample of nearly 500 middle income urban families aged 40-50 years, 90% of their residential long-distance moves were for economic and occupational reasons; interestingly, 90% of the short-distance moves were for status. Twelve of these families, accounting for 47 moves, were in nomadic occupations, e.g. military, construction, and the ministry (Whitney and Griggs, 1958). In another study 80% had job guarantees, 40% moved because of company transfer (Landis, 1966). Post-migration occupational mobility was 2.7 times greater than that of nonmigrants in Michigan; this was not due to high unemployment rates or high rates of occupational mobility prior to migration (Freedman, 1949). The relationship between migration and occupational rise has become increasingly close, to the point where Jennings (1970) contends that during the 16 years of a study, he can predict occupational peaks from the present mobility rate of an individual; for instance, the "average" corporation proesident moved once geographically for every three moves (i.e. promotions) within the corporation.

There have been a few studies indicating occupational mobility is not affected by migration, but methodological questions leave their findings open to doubt. For instance, Riccio (1965) listed 194 males from grades 9-12, half of whom were natives of Columbus, Ohio, and half of whom were

migrants from Appalachia; they were matched by intelligence levels. He found no significant differences on Haller's Occupational Aspiration Scale. Unfortunately, aspiration toward occupations and occupational mobility are not synonymous. Also, as these subjects were in grades 9-12, they were probably carried along by a family move. It seems too that even if dealing with aspiration levels (leaving occupational mobility aside temporarily), as a control group for his migrants, Riccio should have used Appalachian peers from the point of origin rather than subjects in Columbus, the point of destination.

Dorfman's study (1952) of a 10% random sample of Morristown, Pennsylvania, households indicates little difference between occupationally mobile and non-mobile men for migration. However, he also finds little difference in their voting patterns, number of children, and age of marriage which is unusual since most work does demonstrate these differences between occupationally mobile and non-mobile individuals.

These two studies were the only ones encountered that found neutral consequences of migration; there were none found that reported negative consequences and the remainder all reported positive effects. Socio-economic status is of course elevated as a consequence of occupational mobility; migration is also more directly related to socio-economic status, as when people change neighborhoods (Whitney and Griggs, 1958) for status reasons.

The effect of migration on children's academic performance and intelligence has received a good deal of attention, with investigators reporting positive, negative and neutral effects. Increased overall achievement and IQ's are reported for military children (Kenny, 1967) and for college students (Smith, 1943; Snyder, 1967). General negative consequential reports also exist. Approximately twelve percent of families surveyed indicated their children experienced "difficulties" (non-specific) in the new schools as a result of the family relocation (Jones, 1972). High school drop-outs have been reported to have experienced more family moves (Robins, 1967). Absenteeism is a harbinger of dropping out of high school, and migrants from farms to an urban area exhibit higher rates of absenteeism than either non-mobile urbanites or urban to urban migrants (Burchinal and Jacobson, 1963); in this case, the effect of socio-economic status seems important. It would have been interesting to see socio-economic status controlled, then have farm migrants compared to both the urban-nonmigratory and the urban-migratory samples.

Several authors have reported no overall effects of migration on academic success. They include Gilchrist's (1968) work with 2,386 sixth graders in Indiana; when parental education and occupation were held constant, there was no effect of migration on either reading or arithmetic achievement. Mankowitz (1969) contends that the single variable of mobility as well as its interactions with sex, socio-economic sta-

tus and intellectual factors appeared to have little influence on achievement; most of the variance was attributable to the effects of intelligence. Holcombe (1969) found no overall differences between mobile and non-mobile sixth graders, but did find accelerated language development in mobile ninth graders (compared to non-mobile ninth graders).

A few authors have investigated the effects of mobility on specific areas of academic functioning. Increases have been found in language development (Holcombe, 1969) but the most frequent finding is a decrement in different quantitative skills. Mobility has negatively influenced spelling and arithmetic fundamentals (Perrodin and Snipes, 1966), arithmetic and quantitative thinking (Sogbandi, 1970), and arithmetic achievement in sixth grade female and black students (even when controlling for socio-economic status, sex, education of the father and mother); science achievement for mobile groups, except the black students, was also negatively affected (Holcombe, 1969). Pepin, (1967) reports significant differences in both mathematical achievement tests and overall academic achievement, but does not say in which direction.

Mobility's effects on the health and adjustment of people has more recently gotten attention, and here again the literature is not unanimous, though certain trends are discernible. First, health, both physical and psychological, is rarely considered in the literature as an antecedent factor,

except indirectly as in job dissatisfaction or desire for a better neighborhood. Most authors have investigated consequent adjustment and/or psychiatric casualty.

Briefly, migration has been overwhelmingly associated with increased psychiatric casualty and/or personality or emotional difficulties, particularly in the time period immediately surrounding the relocation. Increased casualty rates have been demonstrated for refugees to Norway who showed confusional states with persecutory ideas (which is not surprising since they were refugees) (Eitinger, 1960). Similar findings have been demonstrated with immigrants to the Far East (Murphy, 1961), to Scandinavia (Ødegaard, 1932), and in averages of various immigrant groups (Clark, 1948), when there has been no standardization for demographic or personal variables.

A pattern emerges in which immediately after relocation there seems to be increased psychiatric casualty which is usually temporary, and of a confusional nature. The often-held idea of mobility being conducive to non-remitting psychological disorder seems not to be supported. Listwan demonstrated (1960) that migrants to Australia were affected by a collective anxiety neurosis, which he realistically attributes to migratory stresses and collision with prejudice in the receiving country. Mezey (1960) documented the considerable psychological casualty rate soon after arrival, with a steady decline over time, attributing the difficulty to lack

of adequate social communication for immigrants.

Typically, the elevated rates have been for schizophrenia (Clarke, 1948) or the psychoses in general; Malzberg (1955) indicates psychoses to be elevated and neuroses to be decreased among migrants. It is Klow's contention (1943) in discussing inductees, that what are called schizophrenias are actually acute, confusional states with rapid and complete recovery. There is some evidence he may be quite accurate, since Eitinger's (1960) immigrant groups showed specifically "higher rates of confusional states." U.S. Army enlisted men had more hospitalizations for schizophrenia in 1956-1960 and showed the greatest rate of hospitalization in their early months of military service as compared with the second year; early detection of chronic cases probably accounted for only a small part of the differential rate (Steinberg and Durrell, 1968).

Will (1944) has indicated that 77% of a sample of early psychotic breakdowns among inductees had never previously been away from home, as compared to 35% of the controls. Perhaps there is a positive practice effect in migration. Are these individuals a qualitatively different sub-group within the population prior to their psychotic episode? Related to this question is Swanson's work (1968), which found no effect for migration on white male patients of Southern Louisiana Hospitals. Patients were no more or less migratory than random sample non-patient controls, but, oddly enough, all of

the patients who experienced migration manifested psychiatric symptoms before they changed residences. Perhaps for the psychiatrically vulnerable, the effects of stress due to adaptational demands have an anticipatory component, as well as a "coping during the process" quality.

The idea of psychologically vulnerable individuals is dealt with by H. B. M. Murphy (1961) in his very useful framework for construing the role of change in the etiology of psychiatric disturbance and subsequent hospitalization. He contends that since the Enlightenment with its accompanying rapid social and geographical changes, mobility has been productive of mental disorders; the evidence has been separated into two concepts or perspectives. The first concept is that "change, per se, is productive of mental illness"; thus for every situation in which groups can be compared, one should expect to find higher rates of mental disorders in people who have undergone that change. This view Murphy christened the "general hazard" theory of change. The second concept is that change is disturbing to everyone but produces clinical pictures only in potentially sick persons, those for whom a balance was precarious; this Murphy has named the "associated factors theory" of change. Murphy's work implies the existence of a subset of individuals vulnerable to psychological disorder if placed under adaptational stress; Swanson's work (1968) showing some anticipatory problems might be identifying that potentially vulnerable group (or it might be point-

ing to a different coping style where the effects of the adaptational demands are felt prior to relocation and not afterwards).

As one goes through the research on migration and psychiatric casualty, Murphy's conceptualization gives structure to large amounts of work. Early studies demonstrated higher rates of hospital admissions for immigrants than for native-borns; this early work was without controls for sociological variables. When ages, sexes, socio-economic status, education, predominant type of residential milieu and marital status were either standardized or examined separately, the differential casualty and admissions rates decreased (Malzberg, 1936). Apparently, change itself has deleterious effects, but there are associated factors which can either exacerbate or ameliorate these deleterious effects.

Extensive work in New York by Benjamin Malzberg has documented the finding that control of associated factors diminishes but does not eliminate the differentials in psychiatric casualty subsequent to geographical mobility. In 1936, Malzberg demonstrated that native New Yorkers were admitted to psychiatric hospitals at a lower rate than those presently living in the state but born elsewhere; effects of age and race failed to disturb the conclusion. Foreign-born white populations in New York State in 1939-1941 showed virtually the same admission rates as native born but rates of psychoses were elevated and rates of neuroses decreased

(Malzberg, 1955). (This is particularly interesting in view of the early confusional states already mentioned.) In 1956, Malzberg and Lee demonstrated higher rates again for migrants, with variables controlled (age, sex, color, race, types of disorder).

In discussing first admissions only, he examined all first admissions in New York State, 1949-1951, in both public and private hospitals, and found migrants to have higher first admission rates as well (Malzberg, 1959, 1962), with differential rates of 171.9/100,000 versus 135.4/100,000. Canadian patterns were quite similar (Malzberg, 1964). Most recently for migrants, both the average annual rates for first admission, and the rates of admission for schizophrenia at every age level, are significantly higher than for non-migrants (Malzberg, 1967), which he has interpreted as support for an environmental factors approach, a perspective with which Murphy would very likely feel comfortable. Results similar to Malzberg's work, have also been found in Ohio (Lazarus, Locke, and Thomas, 1965; Lee, 1963; Locke and Duvall, 1964; Locke, Kramer and Pasamanick, 1960), with the usual variation for age, sex, race, urban area and diagnosis. Data from Great Britain lend support (Chave, 1966; Hall, 1964, 1966; Sainsbury and Collins, 1966). In short, even with standardization of exacerbating and ameliorating variables, the event of geographic mobility is significantly related to increased psychiatric disturbance and/or hospitalization; the

process of adaptation to change apparently takes its toll.

Facilitators and Impediments to Adaptation

Consensus seems to be that migration is associated with increased psychiatric casualty, but that some associated factors can exacerbate or ameliorate the effects of migration, though not cancel these effects altogether. Some of these factors are age, socio-economic status, orientation toward mobility, transfer of skills and the workings of the family situation. Over repeated relocations, the effects of these associated factors whether positive or negative for an individual, would very probably be cumulative.

Orientation towards moving has proved to be a significant factor associated with later ease or difficulty of adaptation. Frye, South, and Vegas (1965) have demonstrated that there is a positive correlation between the orientation of the parents to each other and to their children. Parents who have a positive attitude toward changing schools have children who adjust more readily; negative attitudes resulted in less facile adaptation (Barrett, 1972; Snyder, 1967); interestingly, Snyder asserts that the attitudes of the parents and children were not based on fact. Similar relationships were suggested with Japanese students at an American university (Rychlak, Mussen, and Bennett, 1957), with English migrants to New Zealand (Brown, 1959), and with learning cultural interaction skills (Eachus and King, 1966). Finally,

voluntary, prepared moves were much less disruptive than involuntary, unprepared moves (Fried, 1965). For instance, the voluntary Cuban emigres to the United States showed little increase in disorder (Wenck, 1968) (contrary to usual findings with immigrant groups). A possible interpretation is that they were self-selected and very highly motivated and competent to have gained refugee status in this country during the 1960's when emigration from Cuba was being actively discouraged by their government. Self-selection seems again influential in the positive adjustments of migrants to Israel and Singapore where they show decreased rates of hospital admission, while displaced persons (who by definition are not self-selected for migration) to France and Great Britain from North Africa showed higher rates of disorders (Murphy, 1961). The attitude of the receiving community (using Kantor's model) would seem to also be a factor here, since emigrants to Israel, for example, are generally welcome, while immigrants from North Africa to Great Britain have been less welcome. Ødegaard (1932) found greater incidences of psychiatric disorder in emigre groups, particularly among the women. He hypothesized that the higher incidences for the women were attributable to the situation that they were rarely self-selected for migrating.

Butler (1972) asserts, contrary to all the above, that women who did not plan to choose to move, but did so for some reason such as husband's job, made adjustments as successful

as those women who had had some part in initiating the move. This finding in other than the usual direction is difficult to understand, particularly since he also asserted that women felt less alienated toward the new community than did the men. This is generally not the case. The greater casualty rate of women is also related to another facilitator, transfer of skills.

Transfer of skills (language and occupation especially) is one of the major facilitators of integration and adaptation, predicting better than relationship with neighbors or participation in community groups, whether a person feels integrated into his new location (particularly for those over 51) (Hunt, 1970). Weinstock (1964) showed that for post-1956¹ Hungarian refugees, transfer of occupational skills accelerated the acculturation process; physicians with certification could practice in the United States but lawyers couldn't since Hungarian jurisprudence is not based on English common law as American law is. Loyalty to professional group rather than to location has accelerated adaptation of the relocation (Abrahamson, 1965). Wallen (1967) speaks of environmental carry-over, (which includes transfer of occupational skills) as helpful in alleviating culture shock; he points out that culture shock is more frequent in women because men have a substantial environmental carryover as a result of constancy of their jobs. His opinion is lent support by work done recently in connection with the British New Towns where wives

significantly more often than their husbands were subject to neuroses, loneliness, boredom, and isolation, especially in the 45-50 year range (Chave, 1966; Sainsbury and Collins, 1966). Similar findings are related by Hall (1964) in a university setting. Burger (1966) prefers the term syncretism, and uses it to describe an individual process that makes analogies between the old and new, thus facilitating the understanding and acceptance of the new environment.

Age has proved to be a variable affecting adaptation (Berner, 1966) but it seems to be important largely because of the environmental and/or occupational transferring that does or does not occur. For instance, Chave (1966) indicates that in British New Towns there is an elevated rate of psychiatric disorder for women of all ages, but especially for those between the ages of 45-54, and not just housewives; ages 45-54 are just when children are leaving the home and the woman loses one of her occupational roles. Young housewives, however, would still have young children to look after and this role would supply some occupational transition to their lives. Weinburg's data (1969) that relocations are most difficult for teenagers and elderly would lend support to this view, as well as call attention to the role of personal friends and family.

The family serves as an important facilitator, particularly early after the relocation. Vincent (1964) hypothesized the family serves as a mediator by interpreting change

for its members and acting as a shock absorber. Landis (1966) asserts that highly mobile families often send a member ahead as a "scout". The role and attitudes of the wife are largely responsible for early adjustment to a neighborhood (Jones, 1972; McKain, 1972), and children often act as unofficial integrators. Litwak (1960) provided evidence that extended families facilitated mobility, particularly to those families in the early part of a career upswing; the extended family, however, can in later phases of mobility impede assimilation into a neighborhood as it competes with neighborhood integration (Fellin and Litwak, 1968; Toffler, 1970). A study by Berardo (1966) of 1093 randomly selected new-comers to East-Central Florida suggests that long term migrants would more frequently interact with kin than migrants of shorter residential duration and that there was no relation between degree of interaction with kin and with formal organizations. My opinion is that Berardo is dealing with two separate populations; the short term residents seem to be with the aerospace industry and there is little reason to believe that members of their extended family would also live in the area; the long term residents are probably not directly related to the aerospace industry and since short distance moves are not common, members of their extended family are very probably close enough to visit.

Finally, socio-economic status and standing in the community act as impediments or facilitators to adaptation. In-

dividuals with high socio-economic status experience less environmental change than individuals of low socio-economic status, with distance of moves controlled (Burchinal and Bauder, 1963). High socio-economic status groups use work skills and some participation in formal groups to ease adaptation (Hunt, 1970); the interaction of high socio-economic status and formal group membership obviously eases the transition considerably.

For those people of low socio-economic status, migration is usually more disrupting. Tietze, Lemkau and Cooper (1942) have demonstrated the connection between low socio-economic status and repeated intra-city relocations within Baltimore; mobile individuals had higher rates of personality disorders. Robins and O'Neal (1958) traced juvenile delinquency and disturbed individuals from St. Louis to Los Angeles and Chicago; their subjects were chiefly white, male and poor. They demonstrated the interrelation of poverty, impelled migration, psychiatric and/or delinquent behavior and its self-perpetuating aspects.

Minority status as well as poverty can prove to be a powerful impediment to successful adaptation. Malzberg (1964) documents this beautifully in his study of comparative incidences of mental disease in groups of French and British ancestry living in Canada. He demonstrates that the French Canadians, who are a majority in the province of Quebec, had a lower incidence of mental disorder than those of British ori-

gin living in Quebec. The French Canadians in Quebec also had a lower rate than French Canadians living in Ontario. On the other hand, those of British origin living in Ontario had a significantly lower incidence than the minority French Canadians in that province. Further those of British origin also had higher rates in Quebec than in Ontario!

Similarly Murphy (1965) demonstrated that where the Chinese live in relatively large numbers, e.g., on the United States Pacific Coast and in British Columbia, they have a low incidence of mental disorder. In Ontario, where the Chinese are few and scattered, the incidence is high.

With the role of certain facilitating and impeding factors documented, it becomes clear that a combination of these situations can make an enormous difference on the adaptation of an individual to a new location. Someone who is of high socio-economic status, white, male, with a job and family will have a relatively easy time of adjusting. A poor, elderly woman with no job or family, living in an area where she is in a minority has a series of impediments and is very likely to find the adjustment very difficult. It is not at all outlandish to speculate that a cumulation of impediments is conducive to psychiatric disorder, particularly of the acute, confusional and rapid type that are usually seen if any disorder occurs.

These are some effects on people who migrate, what of those people who migrate often? Reviewing some of the conse-

quences brings to mind the two percent of the population that moves eight or more times. With the increased incidences of disorder and the adjustment demands, have they by now joined the category of the walking wounded? It would seem so. And if not, why not? Have they in some way adjusted to continual readjustment, so that change has become the status quo? This seems to be the case.

High Frequency Mobility

In contrast to the field of geographical mobility in general, where research is plentiful, few research efforts have been focused on the highly mobile subsample.

What data there is strongly suggests that children show no gross ill-effects from these high rates of mobility and that the role of facilitators is a potent one. Rates of mental illness and juvenile delinquency are approximately the same for highly mobile populations as for non-mobile, at least among military children (Bower, 1967; Kenny, 1967). Bower researched approximately 130,000 American children in Europe, and demonstrated that rates of mental and behavioral problems are the same as that found in the general population, with far fewer resources than were available for comparable civilian populations. (As of April, 1966, for 415,000 Americans, half of whom were dependents, there were 41 or 42 psychiatrists, 8 psychologists, and 17 social workers in the entire European area, 23,000,000 square miles.)

Obviously, professional help is not a significant factor in adjustment, particularly as Bower's study was directed at children and he states that soldiers received priority treatment and dependents received professional care only if time allowed.

Lack of professional services might not be as damaging as it would first appear. Informal caretaking systems apparently function to ease families through transitions and to give support in times of stress (Litwak, 1960; Landis and Stoetzer, 1966; Montalvo, 1964). Montalvo's study of family separation in the Army demonstrated that as many as half the problems encountered were attributed to a family's relocation, but that the closely-knit network of relationships within the military community was seen by wives as providing significant protection against stress. He states that separation from the military community appeared more stressful than the soldier's absence, and many dependents believed their problems could have been prevented if they'd been better integrated into community life. Obviously, these systems function as a primary facilitating process.

The family also serves this function. Those families with the strongest internal relationships seem to experience the best relocations (McKain, 1972). Highly mobile families, further, have adapted themselves to this way of life with a minimum of stress. Landis and Stoetzer (1966) contend that middle-class families that have gone through the moving pro-

cess frequently, develop certain skills that non-mobile families have not. Lyon and Oldaker (1967) carry this viewpoint further, writing that "the military child in the military community is a mobile child in a mobile community, who develops an expectation of mobility in a culture in which mobility is the norm" (p. 270). This expectation of frequent mobility is particularly important in areas of the previously discussed importance of psychological orientation as a facilitator or impediment.

Falik (1969) has also indicated that in highly migratory families, migration is perceived as a significant aspect of the life of the family and that the family actively develops strategies to cope with it, and generally see themselves as successful. Using a thorough matched pair design, Falik argued that high frequency mobility is not a significant factor of school adjustment for highly mobile children. Jones (1972) on the other hand indicated that after a family moves, 12% of the families said that their children experienced difficulties which could be attributed to the relocation. Jones and Falik seem to be describing two different populations. Jones' sample consists of families who have recently experienced a relocation; since only two percent of the population is highly mobile, the majority of her sample could not possibly be highly mobile. (Even accounting for the fact that since they are highly mobile that two percent sub-group would have a greater probability of showing up in her sample. It's very

improbable that Jones' sample would be comprised primarily of that two percent high-frequency group.) In short, Jones' work with "non-experienced" migrators indicates some difficulty with school adjustment, while Falik's highly mobile group (3 or more prior to fourth grade or 4 or more prior to fifth or sixth grade) seems to experience little difficulty.

Rationale

With these differences between highly mobile and non-mobile populations in mind, several hypotheses were forwarded regarding the former group's methods of adaptation.

Hypothesis 1. It is first hypothesized that highly migratory people have developed different patterns of coping with a new environment, more specifically, that they are more exploratory of their environment, seeking and using its resources readily and easily.

Highly migratory families often write to friends or relatives in the area for information or one member of the family is sent ahead to check out the situation (Landis and Stoetzer, 1966). Once arrived, social interaction peaks during the first six months immediately after relocation, then drops off sharply until about the second year, when it gradually begins to rise again, but never attains that initial intensity (McAllister, 1972). On the other side of the coin, those people who cannot engage in this type of behavior seem

at risk for disorder soon after arrival. Mezey (1960) has contended that inadequacy of social communication is conducive to affective disorders and McKain (1972) related that these families who seemed to have the greatest number of problems also tended to use community resources least. In short, the inability and/or inexperience of using information and community resources renders adjustment more difficult for the relatively non-mobile. Mobile families are hypothesized to intensify the coping behavior in which individuals in major transitions typically seek increased information (Hamburg and Adams, 1967).

There is probably a practice effect operating in this coping strategy, since it has been demonstrated that individuals who have never moved have more difficulty coping with a new environment than people who have previously experienced new situations (Will, 1944; Fellin and Litwak, 1963). Further, Berner (1955) and Bene (1961) have implied that adaptation to first experience with stress is less difficult at an early age. Experimental effects then would be most marked in those who had experienced multiple relocations; preferably since early childhood.

Hypothesis 2. Highly mobile individuals exhibit higher levels of achievement orientation than non-mobile persons. The rationale for this hypothesis is based on the previously reviewed material on facilitators of adaptation, where conti-

nuity of work was of crucial importance. For a child experiencing multiple relocations, school and schoolwork would seem to serve the same continuity function as occupation would for an adult. Since schoolwork is a stable element in the mobile child's life, it seems probable that it would be regarded with some degree of importance.

Hypothesis 3. Highly migratory individuals are low on those behaviors directed towards making friends. Their affiliative behavior (but not necessarily need) will be lower than that among non-movers. This seems logical in terms of learned behavior since friendships would be disrupted with fairly high and predictable frequency as repeated relocations ensued. This would seem to be traumatic and it might be reasonably expected that as time progresses, the individual learns to make few friends as a form of self-insulation. Toffler (1970) refers to such a process in Future Shock:

. . . we have all learned to invest with emotional content those relationships that appear to us to be 'permanent' and relatively long lasting, while withholding emotion, as much as possible, from short term relationships . . . (p. 84).

Migration seems to be particularly disruptive of informal structures such as friendships and neighborhood friends, rather than membership in formal organization or at work (Hunt, 1970). Further, evidence forwarded by Tyhurst (1957) breaks the adaptation process into three stages which usually

take several months to accomplish. Successful adaptation begins with concern and activity toward satisfying immediate needs--shelter, work, food, etc. The second stage, psychological arrival, is characterized by increased anxiety, depression, self-preoccupation, suspicion, and awareness of being new or different. The third period is one of relative adjustment to the new surroundings. The point is that successful adaptation and psychological arrival typically take several months to a year. Most highly-migratory people don't have that much time, even if they wanted to undergo the process for each new location. In light of the probable facilitatory effects of practice and long period for typical adaptation, it seems likely that high frequency movers make a quick, but different, adaptation which probably rapidly fulfills the requirements of stage one, but shortcircuits stage two, psychological arrival. They mentally are still living out of suitcases and it is doubtful that they easily extend themselves to emotional or affectional ties.

Hypothesis 4. Highly mobile groups are low in interpersonal trust. The rationale is simply that it takes time to learn to trust people and these constantly mobile individuals rarely have such an opportunity. My anticipation is that the interaction of low interpersonal trust and high exploratory behavior will typify the highly mobile individual and reveal individuals who are very good at coping with most situations,

are socially facile and pleasant, but with a good deal of reserve and reluctance to commit themselves to many things deeply.

M E T H O D

Subjects

Several restrictions were placed on sampling. First, subjects with very high and very low mobility rates were needed.

From available evidence (Whitney and Griggs, 1958; Toffler, 1970; and a survey of two introductory classes) there were relatively few people in the late adolescent-early adult age range that had moved repeatedly. High-frequency movers are generally somewhat older. Upon inspection of the distributions, it was decided that seven or more moves would be defined as high mobility (about 2% of the population). Control groups would consist of individuals who had never moved.

Second, there were several variables that were controlled as closely as possible to assure comparability of experimental and control groups. The effects of socio-economic status for instance are very powerful, as is seen in the general literature in psychology, and controls for socio-economic status were incorporated. Other such variables include age and sex. Because of the unknown effect of divorce and death on the mobility process, subjects were matched for whether the family was intact and if not, for the sex of the parent with whom the subjects had lived the longest.

With these restrictions in mind--the age range of inter-

est, small percentage of high movers, and variables to be controlled--it seemed best to concentrate on the incoming class of 1975 at the University. With the Assistance of Dr. A. Southworth of the Counseling Office, it was possible to attend each of the semi-weekly freshman orientation meetings. In this way it was possible to see every member of the incoming class that attended their orientation meetings; a total of exactly 2201 questionnaires was obtained from a class of approximately 3100 freshmen. Each freshman (not including new transfers and swing-shifters) received, and most filled out, the short questionnaire asking for the basic demographic information necessary for matching. High mobility (HM) subjects numbered 115; there were 659 subjects who had never moved (henceforth referred to as low mobility (LM)). Each high mobility subject was matched with a zero mobility subject with respect to sex, age (within one year), socio-economic status and intactness of family.

Socio-economic assignments were made for all Ss using a table (see Appendix A) developed by Dr. N. Watt using father's occupation and education. The basic occupational levels are based on those used by Hollingshead and Redlich (1958). Most socio-economic status matchings are exact by index number; often the occupations and educational levels of the matched pair are identical (e.g., both fathers would be salesmen, or machinists or civil engineers); in no case does socio-economic index number of a non-mobile subject dif-

fer from the mobile subject by more than four points (from a possible 114 point spread). Subjects were also matched as to whether their families were intact or not. If not, the subjects were matched for the sex of the parent having primary responsibility for raising them.

In short, the subjects were chosen from a large pool using the criteria of zero or greater than six moves; then all high mobility subjects were matched with at least two low mobility subjects on age, sex, socio-economic status and family. An extreme-group (0 vs. greater than 6) design was chosen because it offered the greatest probability of identifying differences between the two groups (Campbell and Stanley, 1968). Its major weakness as a design is that it cannot demonstrate patterns of curvilinear relationships, but at this point, with so little work in the field, it seemed best to work with extreme values of the independent variable, and in subsequent work to investigate the intricacies and subtleties contained within these major differences.

Measures

The success of people in the field to extract variables or to demonstrate the validity of a concept in which they were interested has been meagre usually because the methodology has been lacking in a) controls of certain variables or b) lack of complexity in designs. Simple designs are aesthetic, but usually reveal little information when mobility is

the focus of attention. For these reasons, more than one hypothesis was examined and each hypothesis was tested by more than one measure whenever possible. In this way, the validity of the concepts of interest was found in a convergent manner by means of two independent procedures as recommended by Campbell and Fiske (1959).

For the first hypothesis, the adequacy and style of coping behavior was measured by the Edward's Exploratory Scale (see Appendix B). At the inception of this research, the EES was an experimental measure with promising preliminary work on validity and discriminability among coping styles.

The second hypothesis, concerning achievement, was measured by content analysis of TAT stories for need Achievement (n Ach) (McClelland, 1958) (see Appendices C and D), and also by peer ratings (see Appendix E).

Affiliative need (n Aff) was similarly measured by TAT content analysis and behavior by peer ratings. The same TAT pictures were used for both n Ach and n Aff (see Appendix F).

Interpersonal trust was measured by the Rotter Interpersonal Trust Scale (Rotter, 1967; Katz and Rotter, 1969) (see Appendix G).

In the questionnaire packet, the order followed was Edwards Exploratory Scale, Rotter Interpersonal Trust Scale, a check of number of moves and age at time of relocation, TAT instructions and blank sheets; the four TAT pictures were a separate packet since they carried no information pertaining

to each subject; they were in the same order of presentation. Peer ratings for achievement and affiliation for three of the subjects' friends were given to each subject at the end of the testing session.

Procedure

During the summer months of 1971, all incoming freshmen were scheduled to attend orientation conducted by the University's Counseling Center. Prior to their arrival, arrangements were made with the Center wherein a short survey applicable to geographical mobility would be administered to each group of freshmen after their standard orientation procedures. Accordingly, during that summer, two groups per week answered a short survey which included information by which subjects of high mobility (seven or more moves) were matched to subjects of zero mobility on the parameters of age, sex, socioeconomic status and intactness of family unit. Mobility was defined as a relocation that included a different house, different school, new neighborhood and different stores. In this way, an intra-city move in a place like Chicago is validly seen as relocating; it seems just as disorienting as a Chicago to Minneapolis move. But, these criteria eliminate down-the-street moves, back to old neighborhood moves and very short distance moves that call for none of the usual adaptive processes, whatever they are.

In this way, 2201 usable surveys were obtained. Of

these, there were 115 high mobility people and 659 people who had never moved. Of the 115 high mobility questionnaires 102 were usable; the remaining 13 were either partially illegible, obviously falsified or otherwise unsuitable and were set aside. Then the 659 low mobility questionnaires were matched by demographic variables to the high mobility subjects, with each high mobility subject having 2-7 low mobility matches. In short, from the original set of 2201, 102 were usable high mobility questionnaires, and the parametrically appropriate low mobility questionnaires were then matched to the high mobility. This resulted in a potential pool of 102 high mobility individuals each matched with at least two low mobility individuals.

In the fall, upon the subjects' arrival at school, they were contacted by phone about the research. They were told that they were of interest to the experimenter because they had moved zero or seven or more times and asked if they would participate in the research by answering a longer questionnaire than that one they had answered during the previous summer. Telephoning each subject was more time-consuming than writing, but in view of their relative scarcity, the investment of time seemed appropriate. It was particularly important to get a high rate of volunteering since both individuals in a matched pair had to reply or his partner's data would be unusable, thereby reducing the number of pairs in later analysis of data.

All subjects were tested in groups in the same room between November, 1971, and March, 1972. Length of time was extended by several weeks in re-contacting subjects who had failed appointments. All subjects received identical questionnaire packets with identical instructions and were given 90 minutes in which to finish. Peer ratings were distributed at the end of the session and the subjects were told that their experimental credits would be mailed to them upon my receipt of their peer ratings. This was done to encourage a high rate of return.

Upon receipt of peer ratings, all information was numerically coded by subject to eliminate name and sex of the individual during scoring of the data. All tests and surveys were scored by the experimenter during the spring of 1972. Because the subjects turned in their packets upon leaving, but had to make a second trip to return the peer ratings, there were fewer of these than there were packets.

Treatment of Data

Analysis of the data was carried out in sequence within two major stages. The first stage concentrated on the characteristics of the original large sample ($N = 2201$) and the subsequent smaller ($N = 774$) sample of high mobility and low mobility subjects. These groups were examined as to their comparability to the populations at large and also for whatever demographic information they could reveal.

The second stage of analysis examined the measures relating to the specific hypotheses that had been generated concerning achievement, affiliation and trust for the high mobility-low mobility pairs.

First, the original large pool of 2201 subjects was examined to see how closely it corresponded to the mobile and non-mobile population at large. It was hoped that the sample would be close enough to the population to provide a base for generalizations; lack of such similarity would have reduced the validity of extending later inferences to the population at large. With this qualification in mind, the sample was compared to population figures on socio-economic status, sex, and number of geographical relocations. The proportion of high mobility and low mobility individuals was compared to the generally accepted figures for high mobility and low mobility in the population.

The representativeness of the sample of high mobility and low mobility subjects ($N = 774$) was then addressed. Specifically, in the present sample, were men and women equally present in the two extreme groups? It was thought that they probably would be. Thus, the interaction of mobility and sex was tested by chi-square with the degree of association indicated by a contingency coefficient (Siegel, 1956).

Similarly the interaction of socio-economic status and migration was investigated; earlier work has demonstrated that both socio-economic status extremes have higher mobility

rates than middle socio-economic status categories (Brown, 1960; Butler et al., 1964; Hall, 1966; Hendrickson, 1967), with the upper socio-economic status categories experiencing the highest frequency of geographical mobility, if not the greatest effects (Burchinal and Bauder, 1963; Hunt, 1970). At this point, the interaction of socio-economic status and mobility was tested by chi-square to see if there was a relationship; the chi-square was then converted to a contingency coefficient to find the degree of relationship.

Finally, to ascertain whether the effects of socio-economic status or sex were more pronounced with regard to migration, a chi-square for heterogeneity was done (Snedecor, 1956).

The second major stage of analysis addressed itself to testing the hypotheses. Since the subjects were matched (high mobility-low mobility) a paired t-test analysis was performed for the measures concerned. Then paired t-tests were done on males and females separately so that sex differences could be ascertained.

From the results of the separate t-tests by sex, it seemed advisable to follow-up certain results, and the interaction of sex and mobility for some hypotheses was investigated using a non-random analysis of variance.

Finally, the effect of the triple interaction of socio-economic status, sex and mobility on measures testing hypotheses was pursued, again by a non-random analysis of variance.

R E S U L T S

Table 1 presents in summary the results of the short survey conducted during the summer of 1971 with the incoming freshmen during orientation. The table shows the number of geographical relocations for each person as member of the entire group, and also by sex.

From this table can be seen the total number surveyed (2201) and the total number of people having moved zero times is 659; these are the people later assigned to the low mobility category. In the general populations, 30 percent have never migrated; in the present sample 29.9 percent is in that category. All the people with 7 or more relocations were included in the high mobility category; there were 115 such high mobility subjects. Population figures for high mobility groups have set their criterion number at 8 moves; two percent of the population is thus characterized as high mobility. In the sample 3.7 percent moved 8 or more times. Thus population figures for low and high mobility respectively are: 30% and 2%; sample figures are 29.9% and 3.7%. There seems to be close correspondence between the two groups, the population and our sample.

Figure 1 is a visual presentation of percentages of the original 2201 sample who have experienced each number of relations; it is also very representative of the population

TABLE 1
Subjects and Migration Categories

Number of Geographical Relocations	Males	Females	Total
0	341	318	659
1	303	281	584
2	165	156	321
3	125	121	246
4	76	61	137
5	41	53	94
6	21	24	45
7	12	20	32
8	14	18	32
9	7	11	18
10	6	9	15
more than 10	10	8	18
Totals	1122	1079	2201

Low Mobility: 659
Males: 341
Females: 318

High Mobility: 115
Males: 49
Females: 66

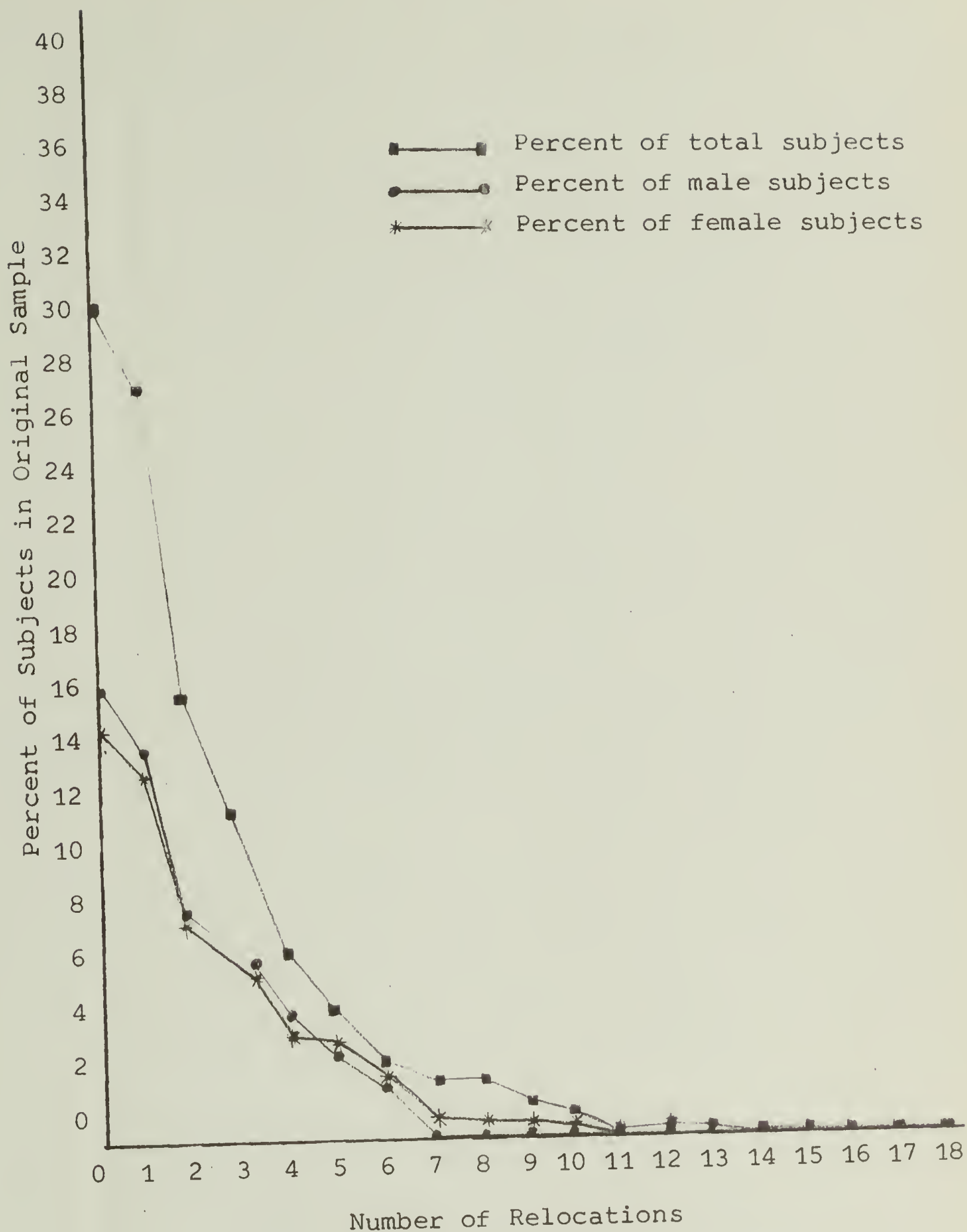


Figure 1

Percent of original 2201 subject sample
at each level of geographical relocation

in this country. As can be seen, by far the largest category (30%) is comprised of people who have never experienced geographical mobility (by ages 18-21), and the percentages drop very rapidly with increasing mobility until the sixth or seventh relocation. At this point, the pattern is altered. It looks as though this 2% of the sample might indeed be the discrete high-mobility sub-group identified by the various workers already reviewed (Goldstein, 1954; Whitney and Griggs, 1958; Morrison, 1968; Toffler, 1970).

Further perusal of Table 1 will reveal that of the 659 low mobility subjects, 341 are male and only 318 are female. Further, in the high mobility category, of 115 subjects, 49 are male and 66 female. The males are over-represented in the low mobility group and the females in the high mobility group. When this discrepancy is subjected to analysis by chi-square, it develops that there is a trend for the women in the sample to migrate more than the men ($\chi^2 = 2.92$, $p < .10$). The contingency coefficient ($C = .06$) indicates some slight association between sex and high rates of geographical mobility in the two extreme mobility groups. The present trend of females being more migratory is best discussed subsequent to analysis of the interaction between migration and socio-economic status.

Socio-economic status is one of the previously reviewed variables that is most intimately involved with migration. Examination of Table 2 suggests some interesting trends.

Table 2
SES and Migration Categories

Mobility Groups	SES Categories				Totals
	I	II	III	IV	
High	76	25	10	4	115
Low	181	216	212	50	659
Male: High	25	16	4	1	46
Male: Low	92	113	108	28	341
Female: High	51	9	6	3	69
Female: Low	89	103	104	22	318

NOTE: SES category I is highest, with SES designations of 20-48; II contains designations 49-78 and III contains 79-106. Category IV is the lowest SES category and contains designations 107-134.

First, looking at high and low mobility groups, there seems to be a greater proportion of high mobility subjects within each socio-economic status category as the status gets higher. For instance, in the lowest socio-economic status category IV, only 4 of 54 subjects are high mobility, whereas in the high socio-economic status category I, 76 of 257 are high mobility. Looking at frequency of migration and socio-economic status by sex further reveals that most of this preponderance of high migration people is concentrated among the high socio-economic status females. Well over half of the socio-economic status I females are high mobility; only one-quarter of the socio-economic status I males are so migratory.

Analysis of this situation was initiated with a chi-square testing of mobility and socio-economic status. The resulting chi-square ($\chi^2 = 69.42$, $p < .001$) demonstrated a highly significant relationship between elevated migration rates and high socio-economic status. Contingency coefficient ($C = .29$) indicates a fair degree of relationship, especially since C can not mathematically reach unity even if correspondence between variables is perfect (Siegel, 1956). Even with perfect correspondence, $C = .816$.

To this point, there is a trend that the women are more migratory than the men and there is a very significant relationship between high socio-economic status and high mobility in general. Looking at the preponderance of high mobility females in socio-economic status category I leads one to ask is

the strong socio-economic status effect due to this group alone. The result of a heterogeneity chi-square indicates the answer to be no. The sum of the separate chi-squares on men and women investigating the relationship between socio-economic status and migration is smaller than the pooled chi-square which combines men and women (Snedecor, 1956).

Exploration and Migration

The second stage of analysis concerned specific hypotheses and measures. The first hypothesis was that high mobility people would be more exploratory of their environment, actively seeking information to help them adapt. The Edward's Exploratory Scale was used; subsequent personal communication from its author indicated the scale was not discriminating between exploratory types as well as the preliminary work had led him to believe. For this reason, conclusions made on the basis of the scale should be very tentative.

Table 3 shows that the high and low mobility groups did not differ on exploration. Neither was there any sex x mobility interaction (Table 4) and separate analysis by sex revealed no differences between high and low mobility groups. No conclusions can be made with confidence since no differences were revealed and since the validity of the measure is presently under investigation.

The second hypothesis was that high mobility people would exhibit higher levels of achievement orientation and

Table 3

Summary of T-tests between High and Low Mobility
Groups on All Measures

Measures		High Mobility	Low Mobility	t-test	Level of Probability
Achievement: TAT (n = 62)	M.	4.95	5.75	-1.03	n.s.
	S.D.	4.26	4.18		
Achievement: Peer R. (n = 34)	M.	4.45	3.93	1.25	.11 ^a
	S.D.	1.53	1.77		
Affiliation: TAT (n = 62)	M.	5.21	4.29	1.61	.11
	S.D.	3.61	3.15		
Affiliation: Peer R. (n = 33)	M.	4.84	4.72	0.26	n.s.
	S.D.	1.76	2.17		
Trust (n = 55)	M.	64.95	64.29	0.88	n.s.
	S.D.	10.18	10.87		
Exploration (n = 61)	M.	19.93	19.70	0.25	n.s.
	S.D.				

^aone-tailed probability level

Table 4

Summary of T-tests by Sex between Mobility Groups
and T-tests of Sex x Mobility Interactions

Measures		Mean scores		t-tests		Interaction of sex and mobility	
		High mob.	Low mob.	t	P	F	P
Achievement: TAT	Males (n = 32)	4.72	6.66	-1.86	.10	3.80	.001
	Females (n = 30)	5.20	4.80	.34			
Achievement: Peer Ratings	Males (n = 17)	4.26	3.84	.74			
	Females (n = 17)	4.65	4.02	.976			
Affiliation: TAT	Males (n = 32)	4.19	3.22	1.22			
	Females (n = 30)	6.30	5.43	1.04			
Affiliation: Peer Ratings	Males (n = 18)	4.84	5.29	-0.67		1.30	.20
	Females (n = 16)	4.83	4.11	1.186			
Trust	Males (n = 27)	61.93	64.15	-0.74		2.06	.05
	Females (n = 28)	67.86	62.46	2.52	.01		
Exploration	Males (n = 31)	19.38	18.41	.83			
	Females (m = 29)	20.48	21.00	-0.37			

imagery than low mobility people. The TAT measured n Ach. Table 3 shows that the high and low mobility groups did not differ significantly on n Ach; in fact, the high mobility group have slightly lower scores, contrary to prediction. There was, however, a significant sex x mobility interaction (Table 4, $F = 3.80$, $p < .001$, $df = 60$). The high mobility males scored almost significantly lower (Table 4, $t = -1.86$, $p < .10$) than the low mobility males, whereas the direction of difference was very slightly reversed for the females. Therefore it can be concluded with at least marginal confidence that high mobility is associated with lowered achievement needs in males and with great confidence that for achievement needs, the process of mobility interacts quite differently with the two sexes.

The second measure of achievement was directed toward behavior rather than imagery and need; for this purpose, peer ratings were used, which judge relative standings among peers on achievement-oriented behavior. Table 3 indicates that the high mobility group is slightly more behaviorally oriented toward achievement than the low mobility group ($t = 1.25$, $df = 33$, $p < .11$) which is in the expected direction. There was no interaction of mobility x sex (Table 4); in fact, separate analysis by sex suggests that in the high mobility group, both males and females measure in the same direction, i.e. as slightly more behaviorally oriented toward achievement (Table 4).

The third hypothesis was that high mobility individuals would be low on those behaviors directed toward making friends (i.e. lower on peer ratings for affiliation), but would probably be higher on need affiliation (measured by content analysis of TAT stories for affiliative imagery). Table 3 shows that the high mobility group is slightly higher than the low mobility group in needs for affiliation ($t = 1.61$, $df = 61$, $p < .11$) which is in the expected direction. Separate analysis by sex (Table 4) suggests both male and female high mobility groups are non-significantly more need Aff than low mobility males and females; there is no interaction of mobility x sex for affiliative needs.

Comparison of the high and low mobility groups demonstrates no differences (Table 3, $t = 0.26$, $df = 32$, n.s.) on behaviors toward affiliation. Table 4 shows no significant differences on separate analyses by sex and no significant interaction of mobility x sex for behaviors toward affiliation.

The last hypothesis was that high mobility subjects would be less trusting than their low mobility controls. Table 3 indicates there is no difference between the high and low mobility groups ($t = 0.68$, $df = 54$, n.s.). There is, however, a significant interaction of mobility x sex (Table 4, $F = 2.06$, $df = 53$, $p < .05$), which is attributable to high mobility females being much more trusting than low mobility females (Table 4, $t = 2.52$, $df = 27$, $p < .01$).

The possibility of an influential triple interaction of mobility x sex x socio-economic status was investigated in post hoc analysis for two reasons. First, the analysis of the hypotheses had results in only two main effect differences between high and low mobility groups (Table 3, achievement peer rating and affiliation TAT), at the trend level of significant ($p < .11$). There were, however, three mobility x sex interactions (Table 4): TAT achievement, affiliation peer ratings, and trust. The importance of mobility x sex interaction was particularly interesting since it had been demonstrated that women were slightly more migratory in the sample ($\chi^2 = 2.92$, $p < .10$), that they had slightly higher (nonsignificantly) socio-economic status, and that socio-economic status and migration are very significantly related ($\chi^2 = 69.42$, $p < .001$). For these reasons, it seemed advisable to investigate the possible interactions of mobility with sex and socio-economic status using a non-random analysis of variance.

Table 5 shows that trust was the only variable that was influenced by socio-economic status, where trust increases with socio-economic status and mobility ($F = 2.33$, $df = 1, 52$, $p < .20$). There was also a possible interaction with sex (Table 5, $F = 2.03$, $df = 1, 52$, $p < .20$) which is mainly attributable to the high mobility women having been significantly more trusting. Examination of Table 5 shows that socio-economic status is not a significant factor in any other measure.

TABLE 5

Summary of Anovas for Interaction of SES x Sex x Mobility

Measure	Anova					
	Source	df	SS	MS	F	P
TAT Ach.	A=Sex	1	166.93	166.93	4.00	.05*
	B=SES	1	11.5	11.5	0.03	
	AB	1	0.47	0.47	0.01	
	S/AB	56	2339.1	41.77		
P.R. Ach.	A=Sex	1	0.65	0.65	0.02	
	B=SES	1	18.77	18.77	0.52	
	AB	1	0.22	0.22	0.01	
	S/AB	32	1162.17	36.32		
TAT Affil.	A=Sex	1	0.06	0.06	0.00	
	B=SES	1	17.06	17.06	0.80	
	AB	1	15.01	15.01	0.71	
	S/AB	56	1191.60	21.27		
P.R. Affil.	A=Sex	1	13.44	13.44	1.61	
	B=SES	1	4.09	4.09	0.49	
	AB	1	4.14	4.14	0.50	
	S/AB	28	234.00	8.36		
Trust	A=Sex	1	864.00	864.00	4.80	.05*
	B=SES	1	413.00	413.00	2.33	
	AB	1	360.00	360.00	2.03	
	S/AB	52	9213.00	177.00		
Exploration	A=Sex	1	15.125	15.125	0.02	
	B=SES	1	.905	.905	0.00	
	AB	1	236.14	236.14	0.26	
	S/AB	60	54748.83	912.48		

The most obvious result is that high-frequency mobility affects the two sexes differently. Most of the significant findings involve interactions of mobility and sex: TAT achievement ($p < .001$), trust ($p < .05$) and peer rated affiliation ($p < .20$). Also, separate analysis by sex shows slight differences for males on TAT achievement ($p < .10$) and clear differences for females ($p < .01$) in trust.

In summary, it may clarify the results to characterize high mobility subjects as slightly more behaviorally oriented toward achievement and also slightly more involved in affiliative needs and imagery. The males are slightly less concerned with achievement needs and the women are clearly more trusting.

Table 6 more graphically shows the directions of these differences. If high mobility subjects are higher than their low mobility controls, the arrows point upward and if they are lower, they point down. For instance, high mobility males are lower on TAT n Ach, so that arrow is directed downward. As can be seen, most of the differences are interactions of mobility x sex or are separate analyses by sex of measures.

TABLE 6

Directions Exhibited by High Mobility Subjects
Compared to Their Matched Low Mobility Controls

Measures	High Mobility Males (from Table 4)	High Mobility Females (from Table 4)	Interaction of Sex and High Mobility (from Table 4)	Combined High Mobility (from Table 3)
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Achievement:

TAT	↓**		↑***	
Peer Ratings				↑*

Affiliation:

TAT				↑*
Peer Ratings			↑**	

Trust		↑**	↑**	
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Exploration

NOTE: * denotes $p = .11$
 ** denotes $p < .10-.01$
 *** denotes $p < .001$

D I S C U S S I O N

The preliminary survey conducted during that first summer indicates the university's population of undergraduates to be migrationally representative of the U.S. population; in both populations, 30% have never relocated and 2-3% have done so 8 or more times. In the present study, there was a trend for more women to be in the high mobility group than expected. Also there was a highly significant relationship between socio-economic status and high mobility. Subjects from higher social class families migrated more frequently. There was a particularly large group of subjects that were high socio-economic status, high mobility, and female, but analysis demonstrated that the highly significant interaction between socio-economic status and high mobility was a general effect over several socio-economic categories and not due to the single large group of high mobility-high socio-economic status women.

It wasn't at all surprising to find that socio-economic status was related to mobility; it's a relatively common finding in the literature. What was surprising was the fact that more women than men were in the highest socio-economic status category and that, further, more women than men were in the high mobility category. It is likely that the antecedent variable (social class of father) caused the consequent vari-

able (high migration). It seems reasonable to infer that the higher social class backgrounds of the women accounts for their higher frequency of migration.

It can only be speculated why the women in the sample came from higher social class backgrounds in the first place. The reasons are undoubtedly many, but at present, two come to mind. First, literature search has suggested that men and women exhibit different migration patterns; women are more likely than men to move short-distances, intra-state, and to small cities (as opposed to major metropolitan centers). It would seem possible that as a state university, this institution would attract more women than men, the men being more likely to attend school at a more distant point from Massachusetts. Also, the university and its environs constitute a small city, which has traditionally been more attractive to women; it would be expected that men would be more likely to go to a school in a metropolis than would women students.

Also, it's intriguing that the women in the sample are more often from the upper socio-economic status categories. Why are upper socio-economic status women over-represented? It certainly couldn't be because families of higher socio-economic status groups send their daughters to college with greater frequency than their sons. It also can't be because there are more women in colleges in general than men. The best alternative speculation is that among many upper socio-economic status families, sons are sent to schools other than

state universities and daughters are sent to the state-supported institutions.

In testing the hypotheses it's interesting that the high mobility males are slightly less need achieving than their controls. High migration rates are associated with high socio-economic status (to the $p < .001$ level in this study), which is related to need achievement. The expectation would be that although the males were matched for socio-economic status, the socio-economic status advancement is perhaps more important to those families who migrated frequently, often in pursuit of increased successes. Why then would the sons be lower in need achievement, particularly since they were very slightly elevated on behavior which was achievement oriented?

It's also rather surprising that socio-economic status influences only the trust variable. In this study, high socio-economic status was very significantly related to high migration rates, which corroborates previously reviewed work. Other studies have suggested that the effects of many relocations are less marked for individuals of high socio-economic status groups than comparable migration rates for individuals of low socio-economic status. This suggestion has seemingly been contradicted by this study, in that all but one of the analyses of variance demonstrated no strong differences in mobility effects due to high socio-economic status. Apparently, for achievement, affiliation and exploration, high socio-economic status does not blunt the effects of high mi-

migration rates. It does seem reasonable however that other variables could well be affected differently by socio-economic status.

Unfortunately, even at a university of this size, there were very few low socio-economic status subjects in the study, that is only 4 high mobility subjects, in socio-economic status categories 107-134, and only 50 low mobility subjects in those low socio-economic status groups, from a pool of 2201 subjects. This has the serious consequence of restricting generalizations to upper and middle socio-economic status groups, to the exclusion of lower socio-economic status groups, a phenomenon that is probably all too prevalent in social science.

In part, this low number is an artifact since high mobility subjects were drawn from the pool first and the low mobility people that matched them on sex, age, socio-economic status, and family were then selected. Thus, all the high mobility-low socio-economic status subjects are accounted for, but not all the lower class persons of low and middle mobility; all the middle-mobility persons (both high and low socio-economic status) were eliminated, so that isn't important. What is important is that there were only 4 people in 2201 that were both high mobility and low socio-economic status. Where are all the other high mobility, low socio-economic status adolescents? Is mobility indeed so disruptive under conditions of low socio-economic status that only 4 of

2201 adolescents get themselves into a college? Generalizations about migration and low socio-economic status must be made, most gingerly, if at all, from this study. Most of the information seems to be "non-information." For instance, why are there so few low socio-economic status freshmen of any migratory category? This is, after all, a state university and it would seem as though more low socio-economic status students could have matriculated at such a place. Were there that few admitted to university that summer or perhaps many did not come for summer orientation? If they were here, did they number more frequently among those that didn't attend testing sessions, or those that falsified questionnaires?

It's rather puzzling; a plausible inference is that the social class distinction is truncated because making as many as seven moves requires at least a modicum of affluence, just to bear the cost of moving, except in the rare case that the migrations also reflect extreme disorganization in the family. In that case, the children are unlikely to go to college.

In general, the empirical results of testing the hypotheses were disappointing. It can be stated with some confidence only that high mobility groups are slightly more behaviorally oriented toward achievement and are higher in needs for affiliation. No important differences between mobility group were found for achievement needs, behavioral affiliation, trust, or exploration.

In testing exploration a problem arose with the Edward's

Exploratory Scale. Analysis suggests no difference between high and low mobility groups on exploratory behavior. Any conclusions, however, must be made with reservations in view of Dr. Edwards' later communication to me; new work he'd done suggested the scale was lacking in discriminative ability. Because of this, it seems as though the first hypothesis was not really investigated.

Work which has recently come to my attention conceptualizes the issues of coping styles and exploratory information-seeking behavior in much the same way as the present study. Hamburg and Adams (1967) suggest that in a variety of situations which are seen as threatening (either inherently, in the life style, or because of society or technology), there is a wide range of individual reactions, strongly influenced by meaning, history, and disposition. There different coping mechanisms are characterized by decreasing emotionality (at the time of coping) and increasing information-seeking behavior. At this point, it still makes sense to hypothesize that high mobility people would have a well-practiced and highly effective set of behavior directed toward getting information.

The most important finding of the data is the different patterns demonstrated by the high mobility males and females. Inspection of mean scores over all measures demonstrated little differences between the sexes, yet comparison of high mobility males and females with their low mobility controls of-

ten revealed significant interactions or trends. Apparently, it's not sex differences on the measures that are being demonstrated but rather the differential effects of high frequency mobility on the sexes as demonstrated by some measures, a consistent interaction of sex and mobility, not straight sex differences.

Examination of Table 4 again for direction of trend rather than significance demonstrates more consistency among the trends for the high mobility females than males; five of the six measures are in the same "direction", i.e., high mobility females are "more" achievement oriented (on both TAT and peer ratings), affiliative (here again on both TAT and peer ratings) and trusting than low mobility females. High frequency migration seems to have been an enlarging experience for them. On the other hand, results for the high mobility males are less consistent; they are non-significantly higher on achievement orientation as measured by peer ratings but slightly lower as measured by TAT analysis. On affiliation, they are non-significantly higher by TAT, but lower by peer ratings. The picture for the males is quite variable over measures.

It is tempting to believe that the significant results obtained serendipitously represent experimental artifacts, but the probability levels for at least one of the sex interactions merit more theoretical attention than that. There were no suggestions in the literature that these interactions

would occur, or why repeated mobility should differentially affect male and female children. What supports this interaction in the society, family, or individual is open to speculation.

One plausible explanation concerns the roles for which male and female children are usually differentially reinforced. Traditionally, male children have been rewarded for instrumental behaviors and female children for interpersonal affiliation. For the males, Table 4 shows that of the mean scores on need achievement the score for low mobility males is quite the highest; these low mobility males stand out from the high mobility males and females, and the low mobility females. Since repeated migration has a cosmopolitanizing effect, the low mobility males can be seen as relatively parochial. If college is indeed seen by most males as offering a variety of opportunities for instrumental behavior, the impact of arrival at college must have been much stronger for the low mobility males than either the high mobility males, who have been exposed to various settings and opportunities, or than the females for whom college is interpreted in more personal and interpersonal terms. Hence, a stronger impact of opportunities for instrumental development is reflected in heightened awareness and needs for achievement and the mean scores (Table 4) are elevated. Being yet freshmen, the necessary behaviors for achievement have not yet been developed and the mean score for low mobility males on behavior is

lower than the score for high mobility males, who have already been acquainted with some of these opportunities and have had time to develop the necessary behaviors to bring their needs to fruition. There is a concomitant lowering of affiliative needs when the achievement needs rise, as reflected again in the mean scores for need affiliation. Finally, the old high affiliation behavior rates from home have not yet diminished in the low mobility males. It would be elucidating to see if over time the behavioral achievement rates increased and the affiliation behaviors decreased for these low mobility males, as they should if the present explanation is to be substantiated.

The variable scores for males seem then to be attributable more to the low mobility than the high mobility group. Among the women, the pattern is more consistent and seems attributable to the high, and not low, mobility females. Again taking into account that female children are traditionally reinforced for interpersonal and affiliative behaviors, it's reasonable for most of them to view college as an opportunity for personal growth and interpersonal affiliation. Frequent migration would foster these interpersonal skills because of their having to deal repeatedly with new interpersonal situations. It makes sense then that the high mobility females would have the highest mean scores (Table 4) on needs for affiliation and trust and higher scores than low mobility women on peer-rated affiliative behaviors.

Finally, it's obvious from both the review of literature and present empirical work, that the process of mobility is complex, usually functioning in interaction with both demographic and individual variables rather than as an independent main effect. Its effects seem to be synergistic with the personal resources of the individual and the set of facilitators or impediments at his command. The differential effect of mobility on female and male children is a case in point; this finding was unanticipated yet suggests an important process occurring between a major demographic phenomenon and a critically important personal attribute.

The role of mobility as a major life change is also of interest for future investigation, especially as it applies to differential coping styles and physical, as well as emotional, health. Recent work (Holmes and Holmes, 1970; Rahe, 1968; Rahe and Arthur, 1968; Burke, 1971) has demonstrated a significant relationship between life changes (including mobility) and subsequent physical illness. In essence, during a specified amount of time, the greater the number and impact of life changes, the greater the probability of an individual's becoming physically ill. The relationships of mobility with subsequent psychiatric casualty has been convincingly documented, as has the synergistic quality of the mobility process; now, physical illness subsequent to relocation is reported. The specific processes and mechanisms, however, have still not been delineated; of the possible ap-

proaches, the life change-synergistic process model seems most promising for future work.

S U M M A R Y

A review of literature documented the already high and accelerating rates of geographical mobility in technologically advanced societies; in the United States, approximately 20% of the population migrates each year. There is also a small group, about 2% of the population, that can be characterized as high frequency migrators, i.e. 7 or 8 moves in 20 years.

The probability of migrating increases with increasing intelligence, socio-economic status, technical and high-level managerial occupations and especially with increasing education. Urban, young and non-married individuals tend to move more often than rural, middle-aged and elderly or married individuals. Race factors are primarily attributable to educational and socio-economic status factors. As many women relocate as man, but women tend to migrate shorter distances and go to medium size cities rather than the long distances and larger cities of the male mobility pattern.

The consequences of mobility depend upon the individual's personal resources and the characteristics of the situation in which they find themselves. Mobility produces a synergistic effect among a series of impediments or facilitators to adaptation.

There are several important facilitators to adaptation.

Orientation toward relocation is probably most important; positive attitudes toward a voluntary move are very facilitating to rapid and facile adjustment in the new situation, as measured by school adjustment, psychiatric casualty rates and self-reports. Transfer of skills (particularly language and occupation) is a major facilitator; this transfer functions as an environmental carry-over, maintains the individual's sense of integration, and reduces the amount of change to which he must adapt. Age is a variable affecting adaptation but its effects are largely attributable to the amount of environmental and/or occupational transferral that occurs; for instance, women of an age where their children have left the home are more vulnerable to psychiatric disorder subsequent to migration than women of an age where their children are yet at home and they therefore have more occupational transfer. Because of these factors, relocations are most difficult for teenagers and elderly people.

The family is important in its functions of interpreting the changes, acting as a shock-absorber and in giving increased emotional support until interpersonal relationships are established in the new community.

Impediments to successful adaptation center around low socio-economic status, minority status and isolation. There is a self-perpetuating relationship among the factors of poverty, impelled migration, psychiatric and/or delinquent behavior. Minority status, in number and sense of isolation,

is a powerful impediment to assimilation and adaptation.

The exact consequences of mobility for individuals depends upon the series of facilitators or impediments encountered. Among those populations studied, generally middle-class or higher, occupation, intelligence and socio-economic status have increased with increasing mobility. Children's general academic performance has been unaffected or improved, though the latter finding has sometimes been attributed to intelligence levels. There is often a transient period of upset and adjustment difficulty upon entering school.

There is an extensive literature documenting the increased psychiatric casualty rate subsequent to migration but the often-held idea of mobility being conducive to non-remitting disorder has not been supported; rather disorders tend to be acute, disorganized states that remit. There is also new work demonstrating increased rates of physical disorders subsequent to migration.

Even with the interplay of impediments and facilitators, experiencing a number of migrations takes its toll; the circumstances of the situation determine the benefits, liabilities, and the price. It seemed reasonable to assume that those individuals who had experienced the most migration would be cumulatively affected by it, particularly in terms of friendships, achievement, and trust.

Specifically, it was hypothesized that the high mobility sub-group would have higher needs for achievement and beha-

viors directed toward achievement than low mobility people, and that they would have higher needs, but fewer behaviors toward establishing friendships. Finally, it was predicted the high mobility people would be less trusting and more exploratory.

Empirical findings were in general disappointing. The high mobility groups were slightly higher in behaviors toward achievement and in needs for friendships; the other tests of hypotheses revealed essentially no differences. A serendipitous finding that seems valid and not artifactual concerns a consistent sex x mobility interaction measure. The effect is not a straight sex difference on measures, but rather an interaction of mobility with sex. Why mobility should differentially affect male and female developmental processes is not obvious. One plausible explanation is that low mobility males feel the greatest impact of instrumental opportunities upon their arrival to college and that is why they were the highest in imagery for achievement, while the women responded more to the affiliative opportunities available.

The important result was the unexpected and valid finding of the mobility x sex interaction. This, and the new findings of temporary physical, as well as psychiatric, disorders subsequent to migration seem priority areas for future research on high frequency mobility.

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APPENDIX A

Table of Socio-Economic Status Conversions

<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>	<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>	<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>
<u>1</u>	<u>1</u>	<u>20</u>	<u>2</u>	<u>1</u>	<u>32</u>	<u>3</u>	<u>1</u>	<u>44</u>
	2	27		2	39		2	51
	3	34		3	46		3	58
	4	40		4	53		4	65
	5	47		5	59		5	72
	6	54		6	66		6	78
	7	61		7	73		7	85
	Z	20		Z	39		Z	58
<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>	<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>	<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>
<u>4</u>	<u>1</u>	<u>57</u>	<u>5</u>	<u>1</u>	<u>69</u>	<u>6</u>	<u>1</u>	<u>81</u>
	2	63		2	76		2	88
	3	70		3	82		3	95
	4	77		4	89		4	101
	5	84		5	96		5	108
	6	91		6	103		6	115
	7	97		7	110		7	122
	Z	77		Z	96		Z	115
<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>	<u>Occ.</u>	<u>Educ.</u>	<u>SES</u>			
<u>7</u>	<u>1</u>	<u>93</u>	<u>Z</u>	<u>1</u>	<u>20</u>			
	2	100		2	38			
	3	107		3	57			
	4	114		4	77			
	5	120		5	96			
	6	127		6	115			
	7	134		7	134			
	Z	134						

Education Scale

1. Graduate professional degree
2. Standard college graduation
3. Partial college (1 year or more)
4. High school graduation
5. Partial high school (10 or 11)
6. Junior high school (7-9)
7. Less than 7 years

Alphabetical List of Occupations by Level

1. Professional and Large-business Owner and Official

Certifical Social Service
 College Educator and Scientist
 Engineer
 High Government official
 Legal
 Lesser Medical
 Medical
 Official
 Owner
 Religious

Advertiser	Large business owner
Archeologist	Lawyer
Area representative	Manufacturer
Astronomer	Mathematician
Auditor	Meteorologist
Bacteriologist	Minister
Banker	Missionary
Bank president	Motel owner
Bookmaker	Nun
Business executive	Occupational therapist
Chemist	Oceanographer
Chiropractor	Optometrist
Civil engineer	Osteopath
Comptroller	Pharmacist
Cottonbroker	Physician
CPA	Physicist
Criminologist	Producer
Dentist	Property owner (large)
Department-store owner	Psychiatrist
Diplomat	Psychoanalyst
Doctor	Psychologist
Educational administrator	Psychotherapist
Auctioneer	Rancher
Chiropodist	Real-estate owner
Electronics researcher	Recreation director
Financier	Researcher
Geologist	Restaurant owner
Geo-physicist	School psychologist
Grain broker	Social worker
High government official	Sociologist
Horticulturist	Speech therapist (certified)
Hotel manager	Stock owner
Hotel owner	Veterinarian
Hydrographer	
Importer	
Import-export broker	
Judge	
Judge advocate in army	

2. Business Agent and Manager

Accounting
Insurance
Management
Real Estate
Sales Representative

Accountant
Advertiser
Advertising manager
Advertising space seller
Agent
Art director
Auctioneer
Business agent
Business manager
Buyer
Construction superintendent
Credit manager
Department head
Distributor
Escrow officer
Field superintendent
Foreign trade for big company
Insurance claim investigator
Insurance collector
Insurance sales
Insurance underwriter
Labor-union business agent
Loan-company agent
Manufacturer's representative

Marketer
Meat jobber
Metal trader
Personnel manager
Plant superintendent
Production manager
Real-estate broker
Real-estate manager
Retail-furniture dealer
Sales manager
Stockbroker
Wholesaler

3. Semiprofessional and Public Administrator

Art
 Educator
 Government Administration
 Literature
 Music and General Entertainment
 Scientific and Medical Service

Actor	Movie or stage director
Actuary	Musician
Advertising copy writer	Nurse
Agricultural consultant	Nutritionist
Airplane pilot	Physical culturist
Architect	Physical therapist
Art designer	Politician
Artist	Postmaster
Cartoonist	Post-office inspector
Ceramicist	Practical nurse
Chief of police	Private music teacher
Choreographer	Professional athlete
Church school teacher	Professional race-track driver
Coach	Programmer
Dental hygienist	Public official
Dietician	Public-relations man
Dress designer	Recreational therapist
Educator (primary and secondary)	Reporter
Embalmer	Secret-service agent
Fashion consultant	Securities analyst
Fashion designer	Singer
Fashion illustrator	Sound editor
Film editor	Sound technician
Foreign Service (consulate)	State interviewer
Forester	Statistician
Forest ranger	Substation head
Funeral director	Tax assessor
Game warden	Tax collector
Graduate student	Translator
Home economist	Tree surgeon
Industrial-relations counselor	T.V. or radio announcer
Interior designer	Weatherman
Investment counselor	Writer
Journalist	X-ray technician
Lab assistant	
Labor-relations counselor	
Lab technician	
Librarian	
Make-up artist	
Medical librarian	
Military officer	
Mortician	

4. Lesser White-collar Worker and Small-Business Owner, Manager, and Salesman

Agriculture
Clerical
Commission Sales
Contractor, construction
Manager
Nonretail owner
Salesclerk
Small-business
White Collar
Retail owner

Appliance salesman
Bank teller
Bookkeeper
Car salesman
Cashier
Claims investigator
Clerk
Contractor
Dental assistant
Dispatcher
Display man
Dry cleaner
Estimator
Farmer
Florist
Freight adjuster
Gas-station owner
Grocer
Haberdasher
IBM operator
Interior decorator
Junk dealer
Key punch operator
Landscape
Laundry owner
Logger
Magazine photographer
Mailer
Manager of small business
Meter reader
Motel owner (small)
Movie cameraman
Nursery owner
Office or desk work
Order clerk
Owner of small business
Pawn-broker

Personnel interviewer
Photographer
Plastering business
Printing business
Produce clerk
Rancher
Receiving clerk
Receptionist
Restaurant owner
Rubbish collector
Salesclerk
Secretary
Service-station manager
Sharecropper
Shipper
Shipping clerk
Tabulator
Telephone operator
Title searcher
Traffic man
Trailer-park owner
Trucking business
T.V. Cameraman
Typist
Undergraduate student
Upholsterer
White collar
Window trimmer

5. Skilled Laborer

Construction
 Draftsman
 Electrical
 Food and personal service
 Foreman
 Mental and mechanical
 Printing
 Protective

Air Force (enlisted)	Form setter	Riveter
Air Force	Freight conductor	Roofer
Ground crew	Furrier	RR engineer
Airline hostess	Glazer	Scaleman
Army (enlisted)	Government meat	Seaman
Baker	inspector	Ship fitter
Barber	Grinder	Shoe repairman
Barge captain	Hand engraver on	Steel finisher
Bartender	precious metals	Structural iron
Beauty operator	Horse trainer	worker
Blacksmith	Inspector	Supervisor
Boiler "engineer"	Jeweler	Surveyor
Boilermaker	Jig-maker	Tailor
Brewer	Lifeguard	Telephone installer
Brick mason	Linoleum layer	Telephone lineman
Cabinetmaker	Lithographer	Telephone switchman
Caddymaster	Machine maintenance	Template maker
Carpenter	Machine operator	Tile setter
Carpet layer	(by education)	Tool and die maker
Cement finisher	Machinist	Upholsterer
Chef	Marines (enlisted)	Watchmaker
Coast Guard (enlisted)	Mechanic	Weather stripper
Compositor	Milliner	Welder
Cook	Millwright	
Cooper	Mold-maker	
Craftsman	Movie Projectionist	
Crane operator	Navy (enlisted)	
Design checker	Neon sign-maker	
Detective	Painter	
Diamond setter	Paint mixer	
Diesel mechanic	Pattern maker	
Draftsman	Photo-engraver	
Diver	Pipe fitter	
Electrical leadman	Plasterer	
Electrician	Plumber	
Electronics technician	Policeman	
Finisher	Printer	
Fireman	Propman in movies	
Flight engineer	Quality-control	
Floor lady	supervisor	
Foreman	Radio repairman	

6. Semiskilled Laborer

Delivery
Food
Laundry
Operator

Assembler	Metal polisher
Attendant	Milkman
Auto attendant	Millman
Belt-maker	Mineral prospector
Blueprinter	Molder
Brakeman (RR)	Oil driller
Bus driver	Parcelpost driver
Butcher	Pottery checker
Buttermaker	Presser
Chauffer	Processor (rubber)
Chemical operator	Punch press operator
Chrome plater	Quality-control tester
Coil winder	RR carman
Color matcher	Renderer
Coremaker	Sand blaster
Creamery man	Seamstress
Counter man	Sheet-metal worker (by education)
Die caster	Shirt-maker
Draw-bench operator	Soapmaker
Distiller	Sorter (fruit, vegetables and nuts)
Drill-maker	Steel pourer
Exterminator	Stickerman
Film developer	Stitcher
Film technician	Switchman (RR)
Finisher	Tally man
Flour miller	Taxi driver
Food checker	Tire builder
Foster mother	Truck driver
Foundry worker	Vending machine operator
Furnace operator	Waiter
Galvanizer	Weaver
Garment cutter	Well digger
Gear cutter	
Hydraulic operation in construction	
Hydraulic-press operator	
Labeler	
Lathe operator	
Lather in construction	
Laundry worker	
Lift-trunk operator	
Mailman	
Meat packer	
Meat weigher	
Metal cutter	

7. Unskilled Laborer

Agriculture
Construction
Factory
Gardener
Laborer
Service

Asphalt raker
Bus boy
Cattle herdsman
Cement mixer
Checker
Chipper
Coal miner
Custodian
Dishwasher
Elevator operator
Farmer (employed)
Field irrigator
Freight carrier
Fruit picker
Gardener (urban)
Grip
Hammer driver
House mover
Janitor
Kitchen attendant
Laborer
Loader
Longshoreman
Lumberjack
Machine helper
Maid
Maintenance man

Messenger
Metal sorter
Oiler
Porter
Sand mixer
Steel loader
Stevedore
Stock girl
Warehouseman
Watchman

APPENDIX B

Edward's Exploratory Scale

	<u>True</u>	<u>False</u>
1. I go out of my way to take part in different activities.....	1	2
2. I don't ask questions when a guest speaks in class.....	1	2
3. You have to keep things to yourself to get ahead.....	1	2
4. I try not to talk about my ideas with adults more than I have to.....	1	2
5. I often like to go to different neighborhoods.	1	2
6. Teachers with different ideas than mine make school confusing.....	1	2
7. I don't like doing something until I'm good at it.....	1	2
8. I suggest new ways of doing things in class...	1	2
9. I don't fit in with new people I meet.....	1	2
10. I give opinions different from my group to make sure all sides are heard.....	1	2
11. I'm good at cheering people up.....	1	2
12. I let older people do the talking.....	1	2
13. I have stopped a teacher's lecture to ask a question.....	1	2
14. I go out of my way to meet new people on the job.....	1	2
15. I'd rather have a teacher explain things than have a class discussion.....	1	2
16. I go along with the group rather than argue...	1	2
17. I ask a question even when it might seem silly.....	1	2

		<u>True</u>	<u>False</u>
18.	I don't like to volunteer to work with people I don't know.....	1	2
19.	I enjoy getting kids from different groups to work together.....	1	2
20.	Most adults can be convinced of the value of my ideas.....	1	2
21.	I stay by myself when there are people around I don't know.....	1	2
22.	I like to think of new things to do in a group.....	1	2
23.	I don't take responsibility for what the group does.....	1	2
24.	I like to work on a new and hard subject more than I like to study an old one.....	1	2
25.	I like to meet new people as often as I can..	1	2
26.	You can talk seriously to teachers.....	1	2
27.	I don't enjoy trying out for a sport I've never tried before.....	1	2
28.	I would rather work for somebody else than start my own business.....	1	2
29.	I don't like to change bosses.....	1	2
30.	I like to try foreign foods.....	1	2

APPENDIX C

Instructions and Pictures for Thematic Apperception Test

Test of Imagination

Name _____ Date _____
 Last First

Age _____ Sex _____

Instructions--Read carefully before turning the page.

On the following pages you are to write out some brief stories that you make up on your own. In order to help you get started there are a series of pictures that you can look at and build your stories around. When you have finished reading these instructions, look at the first picture briefly, then turn the page and write a story suggested by the picture. To help you cover all the elements of a story plot in the time allowed, you will find four questions spaced out over the page. They are:

1. What is happening? Who are the people?
2. What has led up to this situation? That is, what has happened in the past?
3. What is being thought? What is wanted? By whom?
4. What will happen? What will be done?

Your over-all time for each story is only five minutes. So plan to spend only about a minute on each of these questions, but remember that the questions are only guides for your thinking and need not be answered specifically in so many words. That is, the story should be continuous, not a set of answers to questions. Do not take over five minutes per story. You will be allowed only twenty minutes for the whole test, after you get started, although you may finish in less time if you like.

Do not worry about whether there are right and wrong kinds of stories to write because in fact any kind of story is all right. What you have a chance to show here is how you think on your feet, how quickly you can imagine a situation and write out a story about it. What story you write doesn't matter. So don't try to figure out exactly what is going on in the pictures. They are vague and suggestive of many things on purpose. Don't describe them. They are just to help give you an idea to write about.

Make your stories interesting and dramatic. Show that you have an understanding of human nature and can make up interesting stories about people and human relationships.

If you have read these instructions carefully and understood them, look at the picture briefly, then turn the page and write the story suggested to you by the picture. Don't take more than five minutes. Then turn the page, look at the next picture briefly, write out the story it suggests, and so on through the booklet.

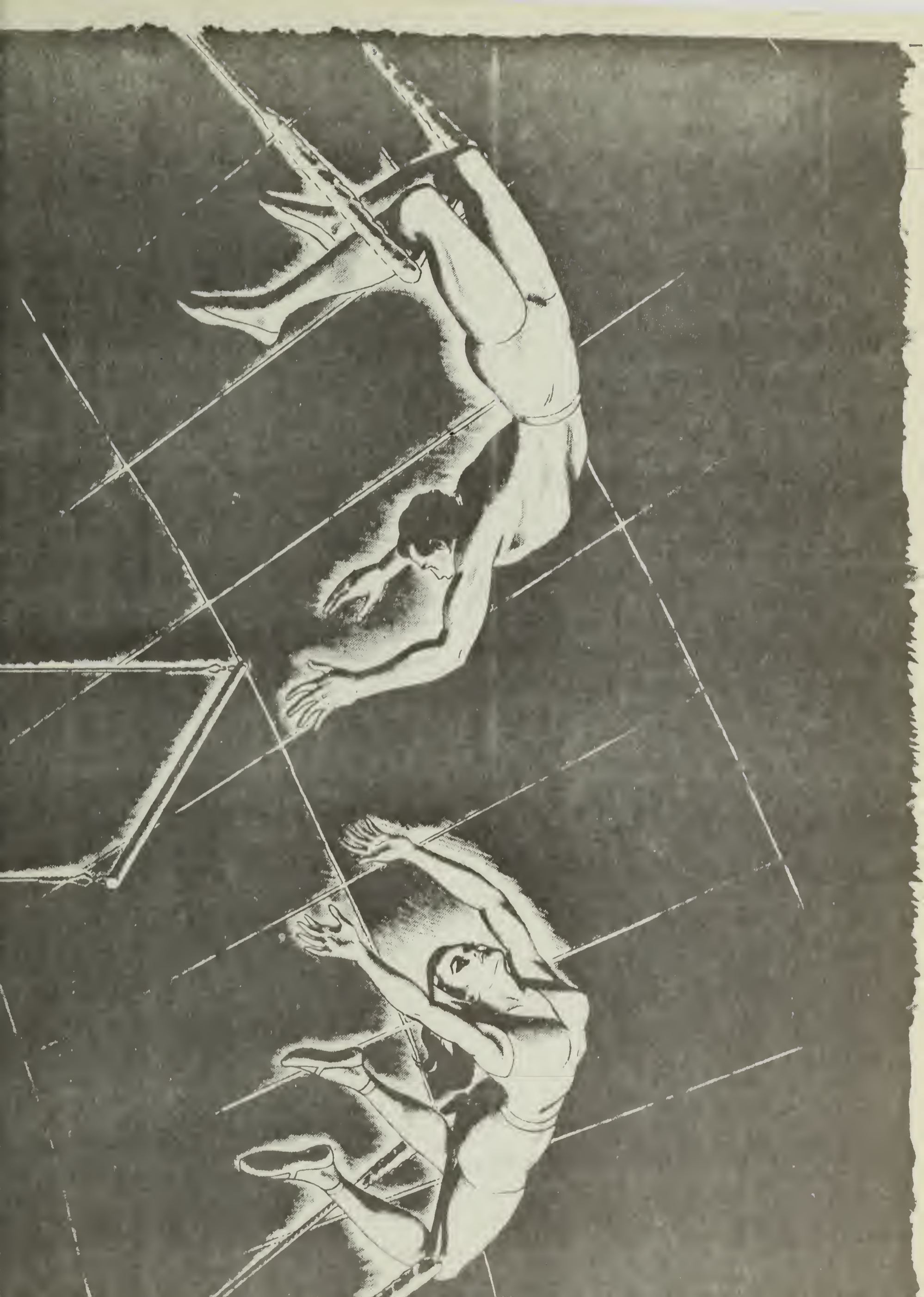
Work rapidly. Don't spend over five minutes on this story.

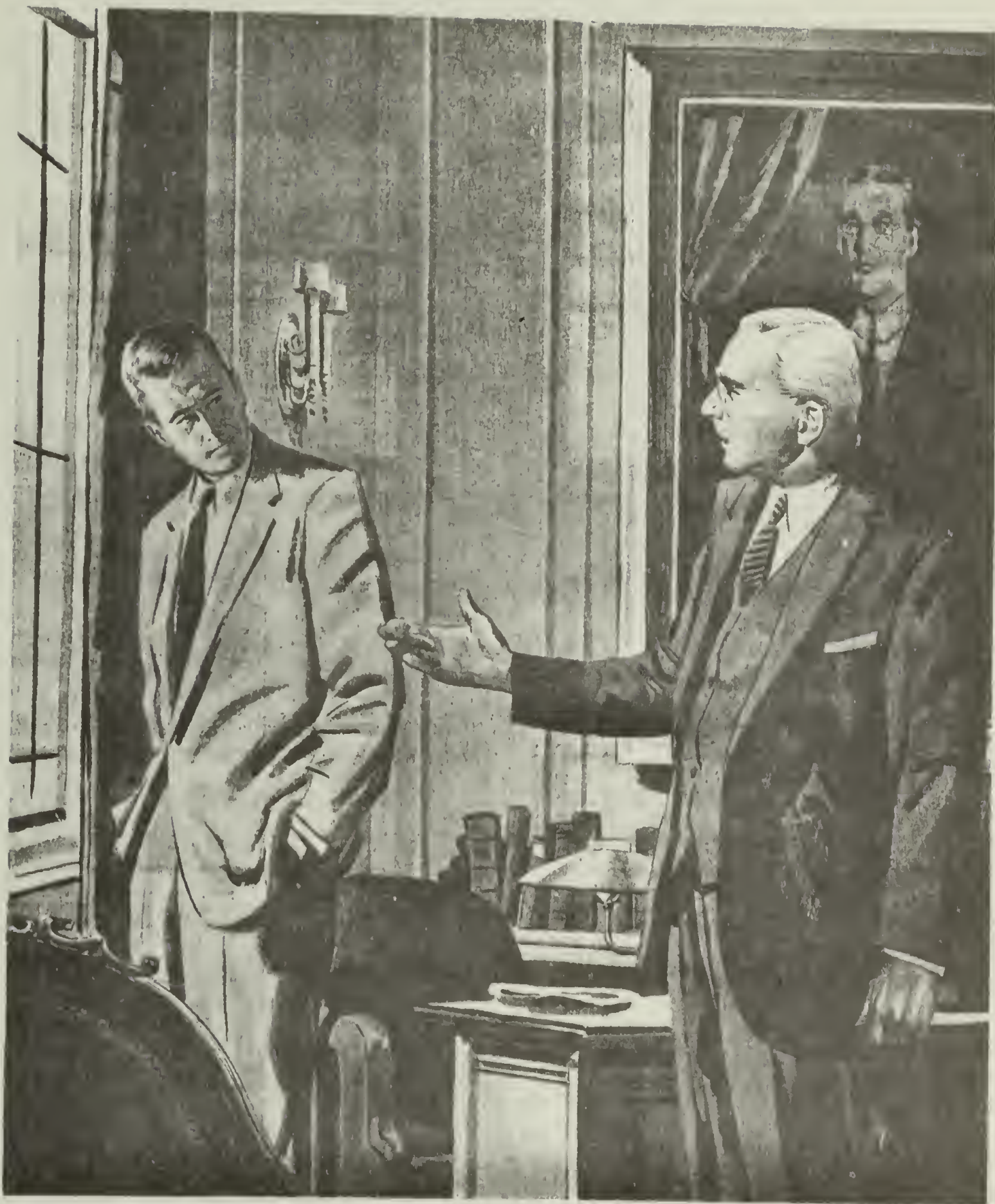
1. What is happening? Who are the people?
2. What has led up to this situation? What is, what has happened in the past?
3. What is being thought? What is wanted? By whom?
4. What will happen? What will be done?

When you have finished your story or your time is up, turn to the next picture. If you haven't quite finished, go on anyway. You may return at the end to complete the story.

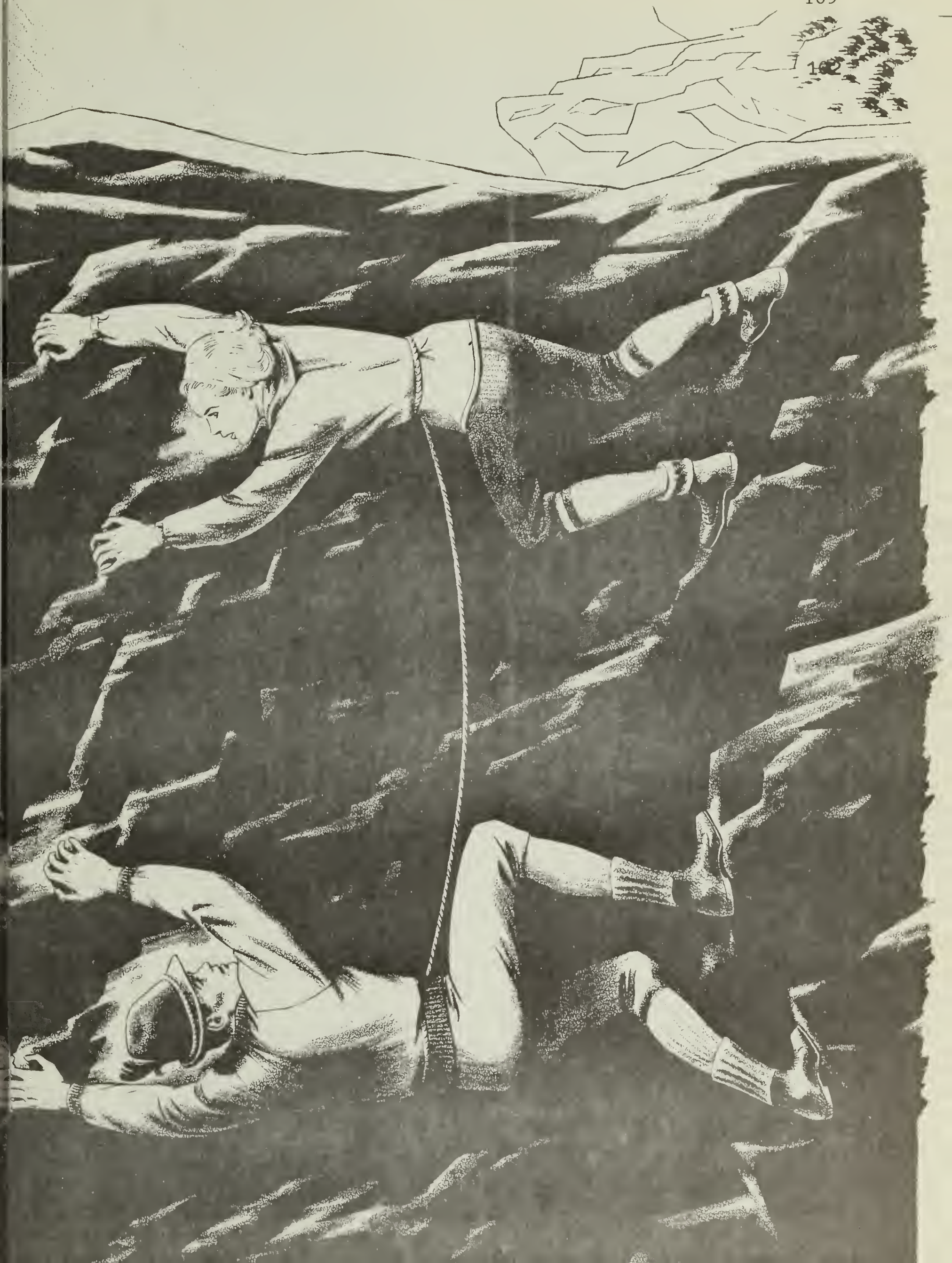


Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.





Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.



APPENDIX D

Content Analysis Guide for Need Achievement

<u>Category</u>	<u>Definition</u>	
Achievement Imagery	Someone in the story is concerned about a standard of excellent; involved in a unique accomplishment; or involved in a long-term goal.	If this is not present, check box and stop here <input type="checkbox"/>
	----- If Achievement Imagery is presents, check this box and continue to score the remaining categories	YES <input type="checkbox"/>
<u>Subcategories</u>	<u>Definitions</u>	<u>Check</u> each box where subcategory is <u>present</u> in story
Need:	Scored if there is a specific statement that someone needs, hope for, wants, or is determined to attain the achievement goal.	<input type="checkbox"/>
Act:	Scored when someone is doing something about attaining the achievement goal. Mental activity (planning) can be scored as well as overt action. Act should be scored regardless of whether the outcome is successful or not.	<input type="checkbox"/>
Goal Anticipation (+):	Scored when someone in the story anticipates happiness or pleasure when the achievement goals will be obtained. Doubtful or uncertain anticipations are not scored here. Note the difference between this kind of thinking and the problem solving thinking that would be scored Act.	<input type="checkbox"/>
Goal Anticipation (-):	Scored when someone in the story worries and is concerned about the possibility of failure to attain the achievement goal. Doubtful or uncertain anticipations are scored here. Note the difference between this kind of thinking and the problem solving thinking that would be scored Act.	<input type="checkbox"/>
Block (Person):	Scored when the story mentions some obstacle in the person himself that has to be overcome before the achievement goal can be realized or attained.	<input type="checkbox"/>
Block (World):	Scored when the story mentions some obstacle in the environments or outer world that has to be overcome before the achievement goal can be realized or attained.	<input type="checkbox"/>
Help:	Scored if some other person in the story gives aid, sympathy, or encouragement to the person who is concerned about the achievement goal. The help	<input type="checkbox"/>

must, of course, be related to attaining the achievement goal.

Goal State (+): Scored if someone attains the achievement goal and feels happy or satisfied. This subcategory indicates feeling or emotion; it is more than just successful action. However, it can also be scored if the story mentions extraordinary objective benefits or extraordinary failures, which permit the inference of emotions. (G+ and G- are scored for feelings after the goal has been attained, while GA+ and GA- are scored if the feelings are in anticipation.)

Goal State (-): Scored if someone fails to attain the achievement goal and feels discouraged or unhappy. (See comments under Goal State (+).)

Thema: Scored if the achievement activities and goals are the principal plot or thema of the story. Do not score if there is any other concern present, such as affiliation or power.

Now, sum all checks from the dotted line down and enter total sum here

Achievement Score

(Total Possible = 11)

APPENDIX E

Peer Ratings for Achievement and Affiliation

Rating of _____ Rank number, achievement _____
 (subject's name) _____ affiliation _____

You know reasonably well the person who gave you this brief questionnaire. For an experiment (from which he will get credit), we would like to ask your opinion of some of his or her characteristics. Obviously, this type of judgment can not be very precise, but a rough idea is all we need. To do this, write down (on the back of this or a scrap paper) the first name and last initial of ten people of your sex and generation that you know reasonably well, including the person who gave you this questionnaire. Then rank these ten people on the first characteristic (achievement orientations) which is defined below. Place a 1 after the name of the person who is the most achievement oriented on the 10 people. Then take the next to the most and place a 2, the next to the least for a 9, and so on until 10. This should have a rank ordering for each of the ten people. For example, the third most achievement oriented person you've listed should have a rank ordering of 3, the sixth of 6, etc. Then write in the appropriate blank space for rank number on the top of the page, the ranks that you assigned to the person who gave you this questionnaire. Do not write any name by which someone could identify any of your friends, except for the subject's name. His or her name will be coded into the appropriate category in the experiment, then the information will be evaluated. (The categories depend upon the number of residential moves the subject has made.)

Your rank listing might look like this: achievement orientation

John W.	7	Barry M.	3
Jerry S.	2	Chris T.	8
Sid B.	1	Greg B.	6
John E.	4	Chick D.	5
George P.	9	Alan S.	10

If John E. gave you this questionnaire, you would write a 4 at the top of the page in the space for the rank number in achievement orientation. That number and his name is all we need.

Achievement orientation is the tendency to engage in any of the following behaviors: If the person,
 has a goal in life or an area of interest that is important to him; spends a good proportion of his time at it;

studies a lot, takes it seriously; plans his time a lot around this activity in a purposeful often organized way; sometimes gives up opportunities for entertainment to study or work on something important to him; spends time in the library (or in a lab, art studio, dropin center, or running some organization, etc.); wants to attain some standard of excellence; is quite competitive or has self-imposed requirements of good performance.

Affiliation orientation is the tendency to engage in any of the following behaviors: If the person (same names may be used)

spends a lot of time in bull sessions; likes to hang around for long raps; knows everybody on the floor; spends a lot of time and/or does a lot of things for friends; has a lot of friends; places importance in being with people and doing things with them; is usually willing to go to the movies at a moment's notice or to a concert, to the pond, Hatch, etc.; will go out of his/her way to make friends. (Put the rank ordering for the subject at the top of page 1, near the "affiliation" space.)

APPENDIX F

Content Analysis Guide for Need Affiliation

<u>Category</u>	<u>Definition</u>	If this is not present, check box and stop here <input type="checkbox"/>
Affiliation Imagery	Someone in the story is concerned about establishing, maintaining, or restoring a positive emotional relationship with another person; or one person likes or wants to be liked by someone else; or the story mentions such affiliative activities as parties, reunions, visits, or relaxed small talk.	

 If affiliation Imagery is present, check this box and continue to score the remaining categories

YES

☐

<u>Subcategories</u>	<u>Definitions</u>	<u>Check</u> each box where subcategory is <u>present</u> in story
Need:	Scored if there is explicit statement of need, hope, or want, or determination to have a warm interpersonal relationship.	<input type="checkbox"/>
Act:	Scored if there are companionate activities and positive nurturant acts; also acts or thoughts about restoring a broken relationship.	<input type="checkbox"/>
Goal Anticipation (+):	Scored when someone in the story is anticipating the happiness accompanying an affiliation relationship.	<input type="checkbox"/>
Goal Anticipation (-):	Scored when someone in the story worries and is concerned about the possibility of failure to establish, maintain, or restore a positive emotional relationship with another person.	<input type="checkbox"/>
Block (Person):	Scored when there are blocks in the person which interfere with affiliative activity.	<input type="checkbox"/>
Block (World):	Scored when there are blocks in the world, such as physical separation, which interfere with affiliative activity.	<input type="checkbox"/>
Help:	Scored if some other person in the story gives aid, sympathy, or encouragement to the person who is concerned about affiliative activity. The help must, of course, be related to the affiliative activity.	<input type="checkbox"/>
Goal State (+):	Scored when someone experiences the joys and satisfactions of affiliation or of some companionate activity.	<input type="checkbox"/>
Goal State (-):	Scored when someone experiences the unhappiness and dissatisfaction of affiliative or companionate activity.	<input type="checkbox"/>
Thema:	Scored if the affiliation activities or goals are the principal plot or leitmotif of the story. Do Not score if there is any other plot.	<input type="checkbox"/>

Now, sum all checks from the dotted line down and enter the total sum here

Affiliation Score

(Total Possible = 11)

APPENDIX G

Rotter Interpersonal Trust Scale

GENERAL OPINION SURVEY

This is a questionnaire to determine the attitudes and beliefs of different people on a variety of statements. Please answer the statements by giving as true a picture of your own beliefs as possible. Be sure to read each item carefully and show your beliefs by marking the appropriate number on your IBM answer card (or answer sheet).

If you strongly agree with an item, fill in the space numbered one. Mark the space numbered two if you mildly agree with the item. That is, mark number two if you think the item is generally more true than untrue according to your beliefs. Fill in the space numbered three if you feel the item is about equally true as untrue. Fill in the space numbered four if you mildly disagree with the item. That is, mark number four if you feel the item is more untrue than true. If you strongly disagree with an item, fill in the space numbered five.

1. Strongly agree
2. Mildly agree
3. Agree and disagree equally
4. Mildly disagree
5. Strongly disagree

Please be sure to fill in the spaces completely and to erase completely any marks to be changed.

1. Most people would rather live in a climate that is mild all year around than in one in which winters are cold.
2. Hypocrisy is on the increase in our society.
3. In dealing with strangers one is better off to be cautious until they have provided evidence that they are trustworthy.
4. This country has a dark future unless we can attract better people into politics.
5. Fear of social disgrace or punishment rather than conscience prevents most people from breaking the law.
6. Parents usually can be relied upon to keep their promises.

- | | | |
|---|---------------------------------------|-----------------------------|
| 1. Strongly agree
disagree equally
disagree | 2. Mildly agree
4. Mildly disagree | 3. Agree and
5. Strongly |
|---|---------------------------------------|-----------------------------|

7. The advice of elders is often poor because the older person doesn't recognize how times have changed.
8. Using the Honor System of not having a teacher present during exams would probably result in increased cheating.
9. The United Nations will never be an effective force in keeping world peace.
10. Parents and teachers are likely to say what they believe themselves and not just what they think is good for the child to hear.
11. Most people can be counted on to do what they say they will do.
12. As evidenced by recent books and movies morality seems on the downgrade in this country.
13. The judiciary is a place where we can all get unbiased treatment.
14. It is safe to believe that in spite of what people say, most people are primarily interested in their own welfare.
15. The future seems very promising.
16. Most people would be horrified if they knew how much news the public hears and sees is distorted.
17. Seeking advice from several people is more likely to confuse than it is to help one.
18. Most elected public officials are really sincere in their campaign promises.
19. There is no simple way of deciding who is telling the truth.
20. This country has progressed to the point where we can reduce the amount of competitiveness encouraged by schools and parents.
21. Even though we have reports in newspapers, radio, and television, it is hard to get objective accounts of public events.

- | | | |
|-------------------|--------------------|--------------|
| 1. Strongly agree | 2. Mildly agree | 3. Agree and |
| disagree equally | 4. Mildly disagree | 5. Strongly |
| disagree | | |

22. It is more important that people achieve happiness than that they achieve greatness.
23. Most experts can be relied upon to tell the truth about the limits of their knowledge.
24. Most parents can be relied upon to carry out their threats of punishment.
25. One should not attack the political beliefs of other people.
26. In these competitive times one has to be alert or someone is likely to take advantage of you.
27. Children need to be given more guidance by teachers and parents than they now typically get.
28. Most rumors usually have a strong element of truth.
29. Many major national sport contests are fixed in one way or another.
30. A good leader molds the opinions of the group he is leading rather than merely following the wishes of the majority.
31. Most idealists are sincere and usually practice what they preach.
32. Most salesmen are honest in describing their products.
33. Education in this country is not really preparing young men and women to deal with the problems of the future.
34. Most students in school would not cheat even if they were sure of getting away with it.
35. The hordes of students now going to college are going to find it more difficult to find good jobs when they graduate than did the college graduates of the past.
36. Most repairmen will not overcharge even if they think you are ignorant of their specialty.
37. A large share of accident claims failed against insurance companies are phony.

- | | | |
|-------------------|--------------------|--------------|
| 1. Strongly agree | 2. Mildly agree | 3. Agree and |
| disagree equally | 4. Mildly disagree | 5. Strongly |
| disagree | | |

38. One should not attack the religious beliefs of other people.
39. Most people answer public opinion polls honestly.
40. If we really knew what was going on in international politics, the public would have more reason to be frightened than they now seem to be.

