as shown in table 5A, there seems to have been some shift back toward agriculture in the age group 23 to 29. Again, age-related factors appear to have been more important during the pre-war and war periods, while those related to time and historical change became most significant during the war period and the rise of industry.

CONCLUSION

In conclusion we should like to refer to a point recently made by Thomas.[4] She emphasizes that the one generalization which can be established about the selectivity of migration concerns the relationship between age and migration and the preponderance of youth among migrants. She further points out that temporal factors are often important in determining the nature and strength of age selection. An important limitation of most studies of the selectivity of migration is that they are limited to comparisons of migrants with non-migrants, or with the general population, at points of origin or destination and at given points of time. Thus they throw little light on changes in the characteristics of migrants over periods of time.[5] This is the problem which we have attempted to attack in this study. Even though limited by its small scale, we have suggested a method whereby changes in the volume of migration, age at time of migration, origin and destination, and occupations of migrants may be related to socio-economic changes taking place in an area undergoing rapid transformation. It is hoped that the method will stimulate further studies on a larger scale by students who are interested in this problem.

[4] Dorothy Swaine Thomas, "Age and Economic Differentials in Interstate Migration," *Population Index,* 24 (October, 1958), pp. 313–324.

[5] See C. T. Pihlblad and C. L. Gregory, "Selective Aspects of Migration Among Missouri High School Graduates," *American Sociological Review,* 19 (June, 1954), pp. 314–324; and Pihlblad and Gregory, "Occupation and Patterns of Migration," *Social Forces,* 36 (October, 1957), pp. 56–64. See also Maurice Benewitz, "Migrant and Non-migrant Occupational Patterns," *Industrial and Labor Relations Review,* 9 (January, 1956), pp. 235–240.

THE CONCEPT OF SOCIAL MOBILITY: AN EMPIRICAL INQUIRY

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A common use of the term "social mobility" implies that there exist high intercorrelations among the several dimensions presumed to comprise the concept. A comprehensive statistical analysis of 22 variables presumably measuring various aspects of social movement shows that even when the focus of observation is restricted to the married pair at least eight, and possibly nine, orthogonal dimensions can be isolated. Among other things, the data show that it is erroneous to posit interchangeabilities among or between objective and subjective dimensions of mobility; of husband and wife variables; and of intergenerational and intragenerational mobility. Thus the most general implication of this paper is that "social mobility" is a complex multidimensional concept consisting of an indeterminate but considerable number of components.

STUDENTS of social mobility, like those concerned with other social phenomena, seek to establish dependable empirical generalizations and systematic theoretical formulations. Foremost in the procedure, arising logically and sequentially prior to hypothesis-testing and theory-construction, is the formation of adequate classificatory concepts. In this paper, we briefly survey current attempts to deal with the concept of social mobility and offer an alternative approach in the form of a comprehensive

statistical analysis of 22 variables presumably measuring different aspects of social movement.[1]

In its most general form our inquiry may be defined as follows: If we take the married couple as the basic unit of analysis, what are the *minimum* number of factors which must be included in a classificatory concept capable of accounting for mobility behavior? Implicit in this formulation is the critical methodological query concerning the extent to which a large number of potential indicators of social mobility may be safely treated as interchangeable.

THE CURRENT STATUS OF THE CONCEPT OF SOCIAL MOBILITY

Sociologists exhibit a gratifyingly high degree of consensus in their conception of the most general meaning of the term social mobility. In his recent text, Barber offers a definition which in substance is similar to formulations appearing in nearly all treatises devoted to this topic: "We have been using the term social mobility to mean movement, either upward or downward, between higher and lower social classes; or more precisely, movement between one relatively full-time, functionally significant social role and another that is evaluated as either higher or lower." [2]

It is evident that the term social mobility, defined in this fashion, performs the useful function of a "sensitizing concept," unifying research and directing attention to a broad field of inquiry. But pending the further elaboration of "movement" and "social class," two of the ambiguous terms in the preceding definition, the concept of social mobility so framed cannot serve as an analytical tool.

THE CONCEPTUALIZATION OF MOVEMENT

The research on mobility performed during the past three decades has been highly diverse both in approach and quality, but it is possible to discern a developing pattern of alternative solutions to the following five fundamental problems in the conceptualization of "movement":

1. *The Unit of Analysis.* Emphasis in American mobility research has been alternately directed to the individual, the family, the entire society, or all three as the basic unit of analysis.[3] By far the greatest number of studies have been undertaken from a societal perspective and have proceeded from a value premise favoring an open-class system and a high degree of permeability in the barriers separating socio-economic strata. As a result, the bulk of empirical investigations has been concerned primarily with ascertaining whether vertical mobility is increasing or decreasing within the total society, within some specific community, or within some designated occupational category or social stratum.[4] An increasing number of

[1] For bibliographies in the field of social mobility, see: Pitirim A. Sorokin, *Social Mobility,* New York: Harper, 1927; H. D. Laswell, D. Lerner, and C. E. Rathwell, *The Comparative Study of Elites: An Introduction and Bibliography,* Stanford: Stanford University Press, 1952; Harold W. Pfautz, "The Current Literature on Social Stratification," *American Journal of Sociology,* 58 (January, 1953), pp. 391–418; *Current Sociology,* "Social Stratification and Social Mobility," II, 1 and 4, 1953–1954; Bernard Barber, *Social Stratification,* New York: Harcourt Brace, 1957; R. W. Mack, L. Freeman, and S. Yellin, *Social Mobility: Thirty Years of Research and Theory,* Syracuse: Syracuse University Press, 1957; S. M. Lipset and R. Bendix, *Social Mobility in Industrial Society,* Berkeley and Los Angeles: University of California Press, 1959.

[2] Barber, *op. cit.,* p. 356.

[3] For illustrations of all three approaches see Lipset and Bendix, *op. cit.*

[4] Illustrations of this type of emphasis may be found in Gideon Sjoberg, "Are Social Classes in America Becoming More Rigid?" *American Sociological Review,* 16 (December, 1951), pp. 775–783; William Petersen, "Is America Still the Land of Opportunity?" *Commentary,* 16 (November, 1953), pp. 477–486; J. O. Hertzler, "Some Tendencies Toward a Closed Class System in the United States," *Social Forces,* 30 (March, 1952), pp. 313–323; Natalie Rogoff, *Recent Trends in Occupational Mobility,* Glencoe, Ill.: Free Press, 1953; S. M. Lipset and Natalie Rogoff, "Class Opportunity in Europe and the U. S.: Some Myths and What the Statistics Show," *Commentary,* 17 (December, 1954), pp. 562–568; Ely Chinoy, "Social Mobility Trends in the United States," *American Sociological Review,* 20 (April, 1955), pp. 180–186; D. V. Glass, editor, *Social Mobility in Britain,* London: Routledge and Kegan Paul, 1954; Percy E. Davidson and H. Dewey Anderson, *Occupational Mobility in an American Community,* Stanford: Stanford University Press, 1937; Mabel Newcomer, "The Chief Executives of Large Business Corporations," *Explorations in Entrepreneurial History,* V, Cambridge: Harvard University Press, 1952–1953, pp.

empirical and theoretical inquiries have attempted to link social mobility with differential culture patterns, child-rearing practices, value commitments, personality syndromes, general attitude clusters, and the like, in order to delineate the consequences of these presumed correlates of social mobility for the *individual* and *family* life.[5]

It is obvious, of course, that in any concrete situation individual social mobility occurs within a specific context of societal change, including shifting socio-economic structures, so that ultimately an adequate theory of social mobility will be required to articulate the interpenetration of all three levels of analysis—the individual, the familial, and the societal.

2. *The Direction of Movement.* The *definition* of direction (as opposed to its measurement) in social mobility is one of the most stable and straightforward notions in sociology. The use of the familiar terms *vertical* and *horizontal* mobility have undergone little modification since Sorokin's description in his pioneer *Social Mobility* some thirty years ago:

> By horizontal social mobility . . . is meant the transition of an individual . . . from one social group to another situated on the same level.
>
> By vertical social mobility is meant the relations involved in a transition of an individual . . . from one social stratum to another. According to the direction of the transition there are two types of vertical mobility: ascending and descending.[6]

3. *The Reference Points of Movement.* Students of social mobility have been obliged to identify appropriate points of arrival and departure in charting the movement of individuals over time. The idea *of intergenerational* mobility involves a *person to person* comparison of the social stratum achieved by sons, fathers, and even grandfathers at comparable periods in their lives. *Intragenerational,* or career mobility, is a concept which usually has been restricted to occupational changes, and refers to the mobility of the *same individual* from the time of his first full-time job through his working lifetime.

4. *The Unit of Measurement in Movement.* The distinction between the amount and distance of mobility is often wholly ignored in mobility studies. *Amount* involves the proportion of individuals who are upwardly or downwardly mobile within some stratifi-

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1–33; Mabel Newcomer, *The Big Business Executive, The Factors that Made Him, 1900–1950,* New York: Columbia University Press, 1955; Suzanne I. Keller, *The Social Origins and Career Lives of Three Generations of American Business Leaders,* New York: Columbia University, unpublished Ph.D. thesis, 1953; S. M. Lipset and R. Bendix, "Social Mobility and Occupational Career Patterns," *American Journal of Sociology,* 62 (January and March, 1952), pp. 366–374, 494–504; Donald R. Matthews, "United States Senators and the Class Structure," *Public Opinion Quarterly,* 18 (Spring, 1954), pp. 5–22; William Miller, "The Recruitment of the American Business Elite," *Quarterly Journal of Economics,* 64 (May, 1950), pp. 242–253; Albert J. Reiss, Jr., "Occupational Mobility of Professional Workers," *American Sociological Review,* 20 (December, 1955), pp. 693–700; Reinhard Bendix, Seymour M. Lipset and F. Theodore Malm, "Social Origins and Occupational Career Patterns," *Industrial and Labor Relations Review,* 7 (January, 1954), pp. 246–261; Beverly Davis, "Eminence and Level of Social Origins," *American Journal of Sociology,* 59 (July, 1953), pp. 11–18; W. Lloyd Warner and James C. Abegglen, *Big Business Leaders in America,* New York: Harper, 1955; Warner and Abegglen, *Occupational Mobility in American Business and Industry, 1928–1952,* Minneapolis: University of Minnesota Press, 1955; Stuart Adams, "Origins of American Occupational Elites, 1900–1955," *American Journal of Sociology,* 62 (January, 1957), pp. 360–368.

[5] See, e.g., Melvin M. Tumin, "Some Unapplauded Consequences of Social Mobility in a Mass Society," *Social Forces,* 36 (October, 1957), pp. 21–37; Evelyn Ellis, "Social Psychological Correlates of Upward Social Mobility Among Unmarried Career Women," *American Sociological Review,* 17 (October, 1952), pp. 558–563; A. B. Hollingshead, R. Ellis, and E. Kirby, "Social Mobility and Mental Illness," *American Sociological Review,* 19 (October, 1954), pp. 577–584; Fred L. Strodtbeck, "Family Interaction, Values, and Achievement," in D. C. McClelland, A. L. Baldwin, U. Bronfenbrenner, and F. L. Strodtbeck, *Talent and Society,* Princeton, N. J.: D. Van Nostrand, 1958, pp. 135–194; Ely Chinoy, *Automobile Workers and the American Dream,* New York: Random House, 1955; E. E. Lemasters, "Social Class Mobility and Family Integration," *Marriage and Family Living,* 16 (August, 1954), pp. 226–232.

[6] Sorokin, *op. cit.,* p. 133. In this paper we follow current practice by referring to "social mobility" as if it were synonymous with the more accurate term "vertical social mobility." Considerations of stylistic convenience and standardization of terminology seem to warrant the loss of terminological precision. For a recent discussion of horizontal social mobility see Richard T. Morris and Raymond J. Murphy, "The Situs Dimension in Occupational Structure," *American Sociological Review,* 24 (April, 1959), pp. 231–239.

cation system. The *distance* of mobility, on the other hand, is a measure of the number of "steps" of upward or downward movement traversed by an individual or a group. This distinction is an important one because conclusions derived from the amount of mobility will ordinarily yield a greater impression of fluidity than results obtained by utilizing distance as the appropriate unit of measurement.

5. *The Visibility of Movement.* The solution to the four preceding problems in the conceptualization of movement may ordinarily be disposed of by the availability of appropriate data or the predilections of the investigator. This is not so with respect to the admissibility of using so-called *subjective* measures of movement (dispositions, attitudes, values) as opposed to *objective* measures (external, visible evidence of change) as mobility indicators. This is a matter involving considerable theoretical controversy and one that has been the subject of a number of recent essays and studies. The issue hinges on the extent to which hypothesized subjective dispositions favoring vertical mobility, such as those implied in the Protestant Ethic, dependably predict mobility achievement; and conversely, the extent to which a change in life chances, such as increase in income, will produce appropriate changes in attitudes and values. Although the evidence is sparse on these points most pertinent research asserts that there is a positive relationship between subjective and objective mobility.[7]

On the other hand, Reissman's findings on the relationship between aspiration level and achievement are ambiguous, and More found that aspiration for higher income is inversely related to upward mobility.[8] In summary, then, any proposition that objective and subjective indicators of movement are at all interchangeable must still be regarded as hypothetical.

THE CONCEPTUALIZATION OF SOCIAL CLASS IN MOBILITY STUDIES

There is a notable tendency in studies of social mobility to treat occupation as an adequate single index of social class and to employ the terms social mobility and occupational mobility interchangeably. This practice has arisen partly as a concession to methodological difficulties and partly from theoretical considerations supported by empirical evidence. On the purely practical level the use of occupation as an index offers a number of important advantages. As Kahl has pointed out:

> The most practical procedure is to use a single measurement (rather than a complex index), and one that is simple and can be supplied by the son concerning both himself and his father. Furthermore, it should have relatively stable meaning from one generation to the next (and preferably, one country to another). Almost all researchers have used occupation, and they have grouped occupations into broad categories such as those of the

[7] The most extensive research on mobility and motivation has pointed to the differential appearance of the "achievement motive" in specific social classes, ethnic groups, and so on, without actually demonstrating the relationship of this syndrome to subsequent objective achievement. See David C. McClelland *et al., The Achievement Motive,* New York: Appleton-Century-Crofts, 1953; and McClelland *et al., Talent and Society, op. cit.* However, a major interpretative concept, anticipatory socialization, was introduced by Merton to explain the findings in *The American Soldier* that those "privates who accepted [in advance] the official values of the Army hierarchy were more likely than others to be promoted." Robert K. Merton and Paul F. Lazarsfeld, editors, *Studies in the Scope and Method of the American Soldier,* Glencoe, Ill.: Free Press, 1950. Hyman has presented convincing evidence that "reduced striving for success among the lower classes, an awareness of lack of opportunity, and a lack of valuation of education, normally the major avenue to achievement of high status" hampers such persons in advancing in the American class structure. Herbert H. Hyman, "The Values Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification" in R. Bendix and S. M. Lipset, editors, *Class, Status and Power,* Glencoe, Ill.: Free Press, 1953, pp. 426–442. See also Strodtbeck's recent contention that people who believe the world is amenable to rational mastery and who prefer individual rather than collective credit for the work they do, hold values important for achievement in the United States. F. L. Strodtbeck in McClelland *et al., Talent and Society, op. cit.,* pp. 186–187.

[8] Leonard Reissman, "Level of Aspiration and Social Class," *American Sociological Review,* 18 (June, 1953), pp. 223–242. According to Reissman's data, the relationship between aspiration level and achievement was positive within the older age groups while the reverse held within the younger age groups. See D. M. More, "Social Origins and Occupational Adjustment," *Social Forces,* 35 (October, 1956), pp. 16–19.

social-economic levels of the U. S. Bureau of the Census. . . .[9]

The rationale for capitalizing on the convenience implicit in the use of occupation as a single index resides in two conventional propositions frequently advanced by social class theorists: (1) the assumption in *static* analysis that there exist high intercorrelations among the several indices traditionally assumed to represent social class,[10] and (2) the assumption in *dynamic* analysis that changes in any of the class indices will be accompanied by changes of comparable magnitude in all of the others. It is difficult to quarrel with the first of these postulates; indeed its validity is a necessary precondition for speaking meaningfully of social class. It is by no means clear, however, that the assumption of the intercorrelation of indices underlying the static analysis of stratification systems is directly exportable to the study of dynamic processes of social mobility. Critics have asserted that occupational mobility involves only one area of potential change, movement in the prestige hierarchy, and that a substantial number of additional dimensions must be examined before it becomes safe to regard social mobility and occupational mobility as even approximately synonymous.[11]

An illustration of this point of view may be found in the caution that changes in occupational status may not be accompanied by a comparable movement in reference group identification. Thus Blau notes that "persons upwardly mobile in the occupational hierarchy who continue to associate largely with working class people, and downwardly mobile persons who continue to associate mostly with middle class people, have changed their economic position but not their social affiliation."[12] In like manner, S. M. Miller poses the question "Are we automatically including changes in income or in skill level when we measure changes in occupational prestige level?" In reply, he considers eight possible combinations of potential simultaneity of movement and speculates that in "only two of the eight conditions do all three indicators move simultaneously in the same direction."[13] The logical status of Blau's and Miller's reservations are identical: both cast doubt on the desirability of treating social mobility as a unidimensional concept.[14]

Clearly the propriety of using occupational mobility as a single index of social mobility depends on a variety of unverified assumptions about the existence and implications of the intercorrelations of occupational and other indices of movement. It appears equally evident that the solution to these problems awaits the results of direct empirical inquiry.

In the light of the foregoing considerations, it is evident that numerous critical issues are still unsettled. Hence, sociologists who in the present state of knowledge aspire to develop

[9] Joseph A. Kahl, *The American Class Structure,* New York: Rinehart, 1957, pp. 252–254.

[10] For impressive empirical confirmation of this assumption, see J. A. Kahl and J. A. Davis, "A Comparison of Indexes of Socio-Economic Status," *American Sociological Review,* 20 (June, 1955), pp. 317–325. The authors show in their factor analysis of nineteen measures of socio-economic status that the Warner Occupational Scale has a loading of .88 on a general factor of socio-economic status and that the much maligned Edwards Scale is scarcely less efficient.

[11] Such dimensions as power and decision-making opportunities, social status, reference-group behavior, possibilities for use of skills and creative expression, self-imagery, income, and others have been variously mentioned by, among others, Lipset and Bendix, *Social Mobility in Industrial Society, op. cit.,* Introduction and Chapters 8, 9, and 10; S. M. Miller, "The Concept of Mobility," *Social Problems,* (October, 1955), pp. 65–72; Peter M. Blau, "Social Mobility and Interpersonal Relations," *American Sociological Review,* 21 (June, 1956), pp. 290–295; M. M. Tumin and A. S. Feldman, "Theory and Measurement of Occupational Mobility," *American Sociological Review,* 22 (June, 1957), pp. 281–288.

[12] Blau, *op. cit.,* p. 293.

[13] S. M. Miller, *op. cit.,* p. 67.

[14] A case can be made, too, for considering other dimensions in occupational movement even if we make the counter-assumption that social mobility is a unitary concept. For instance, in a forthcoming monograph on factory workers in India, Richard Lambert finds a high positive relationship between ascending occupational mobility and favorable attitudes towards the company. But as Lambert recognizes, since the occupational strata were formally specified according to broad skills carrying differential prestige and monetary rewards, any one of these three highly intercorrelated variables might contribute to the favorable response to the management. The *caveat* here is that if the monetary side of mobility, for example, is neglected the very structure of the classificatory concept will distort the interpretation of the phenomenon being observed—this despite the fact that the unitary character of the classificatory concept is not under dispute.

a theory of familial social mobility would be obliged to undertake the formidable task of completing all the cells resulting from the combinations of the many dimensions which have been mentioned. Now, it would be an undeniable advantage from the standpoint of scientific elegance and economy if the number of dimensions could be sharply reduced. Such reduction could be justified only under conditions in which the several indicators of social mobility were interchangeable, that is, if their intercorrelations were sufficiently high to permit the substitution of one for the other. There is *prima facie* indication that several sets of dimensions are probably logically irreducible: the distinctions between vertical and horizontal mobility, upward and downward movement, the amount and distance of mobility, and individual, familial, and societal mobility. Accordingly, the prospect of achieving a parsimonious reduction of dimensions rests largely on the possibility of demonstrating interchangeabilities: (1) among or between objective and subjective dimensions of movement; (2) husband and wife variables; and (3) intergenerational and intragenerational mobility.

THE DATA

Although the materials for this analysis were collected for a study of fertility, social mobility was the object of special attention.[15] An attempt was made to collect data relevant to a wide variety of aspects of mobility, which amounted finally to no less than 22 measures.

The sample interviewed is especially suitable for an analysis of mobility. Native-white, married couples totalling 1,165, were selected at random from listings of birth records throughout the largest standard metropolitan areas of the country.[16] Since the fertility study concentrated on the interval between the second and third child (a longitudinal design features a complete first reinterview in early 1960), all couples sampled had had their second child approximately six months before the first interview. This is an important consideration for any analysis of mobility: with stage of family growth or life cycle held constant, a major source of extraneous considerations is eliminated.

The sample consists, then, of couples living in the largest urban and suburban areas of the nation who were in their middle and upper twenties at the time they were interviewed (1957), had been married for an average of between five and six years, and who all recently had had their second child.

THE MEASURES OF MOBILITY

1. *Occupational Mobility.* Of the 22 measures of mobility, a total of six relate to change in occupational status or job. The simplest of these is number of job changes since marriage (No. 6). More explicitly embodying an underlying status dimension are the five measures of differences in the prestige rating (based on the familiar North-Hatt scale) of occupation at three points in time: the job held by the husband currently, his occupation when first married, and the longest occupational status held both by his and his wife's father (Nos. 1–5). Collectively, these measures are an index of intra- and inter-generational occupational mobility, with the latter delineated in terms of different reference points.

2. *Financial Mobility.* Three variables relate directly to income change. The trend of the family's income during the past year (1956) is measured by a simple qualitative response (No. 7). Change in the husband's earnings is the absolute difference in his earnings during his first year of marriage and his current earnings (No. 8). Change in family income is measured in the same way but includes all other sources of income—income from rents, insurance, return on investments, and income the wife may have earned—as well as the husband's earnings (No. 9).[17]

3. *Residential Mobility.* This dimension is indexed by two variables—number of moves since marriage (No. 10) and length of time the couple has lived in their current

[15] The fertility study is being conducted by the Office of Population Research, Princeton University, under the administrative direction of the Milbank Memorial Fund. It is supported by grants from the Carnegie Corporation and the Population Council, Inc.

[16] Chicago, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, and San Francisco.

[17] Fewer than seven per cent of the wives interviewed were working currently.

residence (No. 11). The emphasis here is on changes in housing whether or not they are accompanied by changes in community of residence.

4. *Mobility Perceptions and Aspirations.* Exactly one-half of the variables relate to perceptions, statements of values, and aspirations.[18] Five purport to measure "drive to get ahead" in the context of sacrifices the respondent feels he or she might make in order to get ahead in work or in life generally. For example, the wife's score on the "drive to get ahead" index (No. 12) measures her willingness to sacrifice the following values in order "to get ahead in life": leave friends, to become more active in community organizations and clubs not of one's own choice, to postpone having another child, to "keep quiet" about religious views, to have her husband take a job with less security but more opportunity, to move to a less pleasant neighborhood temporarily, to see husband less because he would be working more, and to send children to a school of lesser quality. Her and her husband's willingness to sacrifice ideological convictions (Nos. 13 and 19) combines items on willingness to keep quiet about political and religious views in order to get ahead. The wife's willingness to sacrifice "social interests" to get ahead (No. 14) combines an item on "entertaining people only because they were connected with her husband's work" with an item on becoming more active in incompatible organizations and clubs.[19]

Another approach is represented in the index labelled "social status aspirations" (No. 15). The five items in this index aim specifically at measuring the wife's ambition for social prominence. Whether or not she would be pleased by having her name appear in the society column of a newspaper is a typical item in this series.

On the assumption that many parents conceive of mobility in terms of their children's future (irrespective of frustration-displacement-projection theory), a scale of the mother's aspiration for sending her children to college was developed (No. 16). Four questions relating to her expectations, plans for financing a college education, and intensity of the ambition to send a son or daughter under serious financial hardship[20] were included.

Perception of opportunity might reflect a certain sensitivity to mobility values. This assumption was translated into a two-question index (No. 17) in which the wife was asked to evaluate her husband's chances for getting ahead in his work and the extent to which he is finding it possible to improve his chances.

The husband's "drive to get ahead" index (No. 18) is also composed of eight items. In the questions asked of the husband, "getting ahead" was defined in terms of his work as well as life generally. Most of the items refer to the same values as for the wife, such as leaving friends, living in an undesirable neighborhood, postponing another child, not seeing spouse as much as he would like, sending children to an inferior school, and keeping quiet about religious views. The remaining two items refer to going without any vacation and risking health.[21]

Another approach to the measurement of the husband's aspiration level is reflected in a set of items which try to assess his perception of the importance of getting ahead (No. 20). The eight questions in the index are very direct, for example: "It is important to me to own material things, such as a home, car or clothing which are at least as good as those of my neighbors and friends."

Still another approach attempts to probe the husband's level of satisfaction with his present social status by asking whether or not he would be satisfied if his children enjoyed a similar status by the time they reached his age. Four questions relating to occupation, education, opportunity, and income and consumption are included (No. 21).

[18] All summary indexes underwent thorough internal item analyses prior to construction, including either factor analysis or Guttman scalogram analysis.

[19] These three sub-sets of items were scored separately from the parent "drive to get ahead" indices because of their extremely high homogeneities. There is a one-eighth overlap of each of these sub-scales in the parent sets.

[20] Only two of the 1,165 mothers interviewed would send a daughter, but not a son, to college if it meant serious financial hardship.

[21] This approach to the study of mobility aspirations was first suggested by Reissman, *op. cit.* Although it cannot be conclusively demonstrated, there is reason to believe that these questions may be tapping a feeling of frustration and deprivation rather than ambition.

On the assumption that the husband's perception of mobility is largely determined by his occupation and job, a series of questions was developed to tap an area termed his "commitment to work values" (No. 22). Eight questions comprise this index which ask if he sometimes regrets going into his kind of work, how much interest he has in work compared with leisure time activities, and similar items probing involvement in the work life.

IDENTIFICATION OF FACTORS

The statistical problem, corresponding to the preceding substantive discussion, is the reduction of many measures of mobility to as few orthogonal dimensions as possible. The assumption that mobility is not a unitary concept implies the existence of at least two uncorrelated dimensions. The questioning of the interchangeability of measures of mobility further implies that no single underlying dimension is strongly represented in each and every measure. In the language of factor analysis, there is more than one common factor, and there is no pronounced general factor among the various measures of mobility.

Apropos of this formulation of the problem, factor analysis (the centroid solution) with rotation to simple structure (quartimax criterion) was employed.[22] The resulting factor structure (Table 2) consists of nine uncorrelated common factors.[23] The separation of measures by factors is unusually well defined—distinguishing, in most instances, among nominally distinct measures of mobility. This latter feature of the factor structure encourages the supposition that some of the factors can be correctly identified from these measures alone.

The contents of the first three factors are manifestly clear. *Factor 1* is occupational mobility relative to the prestige of the husband's father's occupation. *Factor 2* is also intergenerational occupational mobility, but from the reference point of the wife's father's occupation. *Factor 3* is intragenerational mobility; it is relative to the husband's occupation at marriage. The uncommonly high factor loadings (for example, .96 and .80 in Factor 1) in these first three factors border on artifact of measurement,[24] although they genuinely indicate that mobility measured from point X is not interchangeable with mobility measured from point Y.[25]

Factor 4 displays its largest loading among the three measures of income change and clearly represents another intragenerational mobility factor—economic mobility.

Factor 5 reveals highest loadings on variables 6, 10, and 11—number of job changes, number of moves since marriage, and length of residence in current place. Variables 10 and 11 form another pairing of the type discussed above. The most appropriate label for this factor appears to be spatial mobility.

These first five factors account for the "objective" or visible dimensions of mobility. The remaining four factors are concerned with the "subjective" dimensions of mobility (feeling states, attitudes, or values), assumed to be the more subtle analogues of visible mobility. *Factor 6* derives its name from the variable having its highest loading, Husband's Drive to Get Ahead. It contains an element of social opportunism expressed by the willingness on the part of the husband to sacrifice ideological conviction for the sake of mobility and refers also to the importance he attaches to getting ahead. *Factor 7* is the

[22] Communalities were estimated by successive iterations until stability was achieved.

[23] The process of extracting factors ended when the last factor extracted contained no pair of elements whose product exceeded $\frac{2}{\sqrt{N}}$ (Humphrey's rule), or approximately twice the standard error of the correlation coefficients.

[24] For example, if there were no intragenerational occupational mobility the loadings would be even greater, perhaps unities, since the two measures of mobility, say, from the husband's father's occupation, would have to correlate perfectly if measurements were reliable. Also, even with no *intra*generational mobility, orthogonal factors would be isolated simply because the wife's father's and the husband's father's occupational prestige ratings do not correlate too highly. Thus the high loadings and the separation of factors are in part due to pairings of measurements by their common element (the parental occupation) and the lack of high correlation between the two parental occupations. This near artifact does not, however, detract in the slightest from the substantive reasons prompting the inclusion of the measures in the analysis.

[25] The intergenerational mobility of a couple may be upward or downward, depending upon the husband's or wife's father's occupation as the referent. Studies ordinarily use male lineage to measure mobility.

TABLE 1. MATRIX OF PEARSONIAN COEFFICIENTS OF CORRELATION AMONG TWENTY-TWO MEASURES OF MOBILITY

No.	Measure of Mobility	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Husband's father's to husband's first occupation	..	.42	.79	.21	—.35	—.11	.08	.07	.02	—.04	—.01	.02	—.07	.05	.07	.05	.07	—.03	—.01	—.06	.13	.06
2	Wife's father's to husband's first occupation	..	..	.24	.80	—.31	—.08	.05	.05	.04	.00	.00	.04	—.01	.06	.05	.07	.12	.00	—.01	—.08	.14	.10
3	Husband's father's to husband's current occupation	..	..	..	.40	.26	—.07	.06	.13	.08	—.04	.01	.05	—.04	.04	.11	.08	.11	—.06	—.01	—.08	.14	.09
4	Wife's father's to husband's current occupation	..	..	..	..	.27	—.04	.05	.09	.09	.01	.01	.05	.01	.06	.10	.10	.16	—.03	.00	—.09	.13	.13
5	Husband's first to his current occupation	..	..	..	..	..	.09	—.02	.10	.10	.02	.02	.03	.04	—.01	.06	.03	.06	—.04	.02	—.01	—.01	.03
6	Number of job changes	..	..	..	..	..	..	—.09	.09	.08	.24	—.02	.03	.00	—.02	—.02	.00	.05	.07	.00	.11	—.11	—.04
7	Income trend in past year	..	..	..	..	..	..	..	.25	.23	.04	—.06	.03	.02	.05	.06	.04	—.14	—.05	—.05	—.01	.15	.09
8	Change in husband's earnings	..	..	..	..	..	..	..	..	.69	.14	.10	.00	.02	.01	.04	.09	.13	—.01	.01	—.08	.18	.13
9	Change in family income	..	..	..	..	..	..	..	..	..	.26	.00	.03	.04	.04	.04	.09	.15	—.05	.01	—.03	.19	.15
10	Number of moves since marriage	..	..	..	..	..	..	..	..	..	..	—.36	.09	.10	.00	—.02	.02	.06	.11	.07	.03	.10	.09
11	Length of residence in current place	..	..	..	..	..	..	..	..	..	..	..	—.08	—.04	.00	—.03	—.03	—.13	—.04	—.04	—.03	—.10	—.07
12	Wife's drive to get ahead	..	..	..	..	..	..	..	..	..	..	..	..	.50	.55	.08	.10	.03	.25	.15	.08	.04	.03
13	Wife's sacrifice of ideological convictions	..	..	..	..	..	..	..	..	..	..	..	..	..	.25	.06	—.03	.01	.12	.16	.06	.06	.04
14	Wife's sacrifice of social interests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.09	.14	.03	.09	.06	.06	.01	.01
15	Wife's social status aspirations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.05	.12	.10	.07	.06	.10	.09
16	Wife's aspirations for children's education	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.21	.06	.04	—.05	.12	.10
17	Wife's perception of husband's opportunity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.06	.07	.00	.38	.35
18	Husband's drive to get ahead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.52	.30	—.06	.00
19	Husband's sacrifice of ideological convictions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.13	.06	.00
20	Importance husband attaches to getting ahead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—.20	.00
21	Level of husband's status satisfaction	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.51
22	Commitment to work values	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 2. ROTATED * FACTOR STRUCTURE OF TWENTY-TWO MEASURES OF MOBILITY [26]

No.	Measure of Mobility	1	2	3	4	5	6	7	8	9	h^2
1	Husband's father's to husband's first occupation	.96	.13	—.25	.00	.00	—.01	.02	.03	.02	.99
2	Wife's father's to husband's first occupation	.29	.84	—.36	.00	.00	.00	.02	.05	.01	.92
3	Husband's father's to husband's current occupation	.80	.22	.46	.08	—.03	—.01	.02	.05	—.03	.91
4	Wife's father's to husband's current occupation	.08	.94	.24	.06	.01	—.03	.03	.05	.01	.96
5	Husband's first to his current occupation	—.14	.01	.69	.05	.00	—.03	.04	.02	.02	.50
6	Number of job changes	—.11	—.01	.08	.10	.33	.06	—.02	—.18	.01	.17
7	Income trend in past year	.05	.02	—.06	.28	—.08	—.05	.06	.15	.14	.14
8	Change in husband's earnings	.06	.03	.03	.82	—.02	—.01	—.01	.08	.00	.68
9	Change in family income	.01	.04	.01	.85	.11	—.01	.03	.08	.02	.75
10	Number of moves since marriage	—.03	.01	—.01	.19	.70	.09	.08	.09	—.03	.54
11	Length of residence in current place	—.02	.02	.02	.08	—.42	—.05	—.06	—.16	—.16	.24
12	Wife's drive to get ahead	.03	.04	.04	—.01	.07	.09	.87	.03	.00	.77
13	Wife's sacrifice of ideological convictions	—.10	.02	.02	.02	.04	.12	.53	.06	—.22	.37
14	Wife's sacrifice of social interests	.05	.06	—.04	.03	—.09	.02	.64	—.03	.14	.44
15	Wife's social status aspirations	.05	.09	.08	.03	—.07	.14	.10	.12	.11	.08
16	Wife's aspirations for children's education	.08	.05	.06	.07	.00	.01	.11	.14	.26	.11
17	Wife's perception of husband's opportunity	.07	.11	.09	.11	.03	.10	.02	.49	.37	.42
18	Husband's drive to get ahead	—.01	—.03	—.04	—.01	.06	.78	.12	—.02	.04	.63
19	Husband's sacrifice of ideological convictions	.00	—.05	.04	.00	.02	.61	.12	.06	—.11	.41
20	Importance husband attaches to getting ahead	—.10	—.02	—.04	—.04	.04	.36	.07	—.16	.15	.19
21	Level of husband's status satisfaction	.09	.09	—.01	.13	.04	—.04	.03	.75	—.08	.61
22	Commitment to work values	.02	.11	.00	.10	.07	.03	.01	.63	.05	.42
Percentage explained of:											
	Total variance	8.8	15.0	2.5	11.7	2.1	10.5	17.2	2.6	0.2	70.6
	Common-factor variance	12.0	20.4	3.4	15.9	2.8	14.3	23.4	3.6	0.3	96.1

* Rotated according to the quartimax criterion of simple structure, which maximizes the fourth moment of the distributions of factor loadings.

[26] We wish to acknowledge our appreciation to the School of Education of New York University for defraying the costs of additional data processing in connection with this analysis.

rough counterpart of this dimension for the wife and includes her willingness to sacrifice social interests.

Factors 8 and *9* are the least clear in the matrix. The former suggests a dimension of subjective mobility—the satisfaction with occupational status as perceived by both husband and wife. *Factor 9* may well be mostly error, containing as it does a *potpourri* of low and negligible loadings discouraging other speculations. The only apparent element is the anticipation common to the wife's aspirations for children's college education and perception of her husband's job opportunities.

One further comment about the factor structure seems appropriate. Five of the measures yield small communalities (less than .20). The measure of the wife's Social Status Aspirations ($h^2 = .08$) is the worst offender. Presumably this is indicative of either poor measurement or untapped dimensions—a familiar moot point. The fact remains that these small communalities do not in any telling manner affect our basic conclusions.

SUMMARY AND CONCLUSIONS

Critical to the long-run development of theory in any area is the formulation of concepts. In any science, concept formation is guided initially by imaginative speculation, screened in terms of research utility and accordingly fitted into various bodies of substantive knowledge. This paper has sought to advance concept formation in the area of social mobility by approaching the problem empirically, as well as speculatively, and by applying a model for routinizing the process. The major substantive finding emerging from the analysis is that even if the term "social mobility" is restricted to eleven "objective" and an identical number of "subjective" measures, and the focus of observation is confined to the married couple, at least eight, and possibly nine orthogonal dimensions can be isolated from the total array of 22 measures. One important and direct implication of this finding is that one cannot safely infer knowledge of one dimension of mobility from knowledge of another. More specifically, on the basis of our data, it is erroneous to posit interchangeabilities among and between objective and subjective dimensions of movement, husband and wife variables, and intergenerational and intragenerational mobility. In fact, given nine orthogonal dimen-

sions, one might say that we are prohibited from drawing precisely 72 one-step inferences.

The preceding discussion in no way implies that the concept of social mobility will always be adequately represented by the particular dimensions isolated in this study. On the contrary, there is quite clearly an unavoidable arbitrary element in the specification of dimensions of movement varying with the purposes of the investigation, the unit of observation, the reference points chosen, and the extensiveness of measurement. For example, in this study, if the requisite data had been available there is every reason to believe that in addition to an *intra*generational income change factor a comparable *inter*generational factor would have emerged.

In the light of these considerations, the most general implication of this paper is that "social mobility" is a complex multidimensional concept consisting presently of an indeterminate but substantial number of components.

GEOGRAPHIC MOBILITY AND EXTENDED FAMILY COHESION *

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The hypothesis is advanced that extended family relations can be maintained in an industrial, bureaucratized society despite differential rates of geographical mobility. This is so because institutional pressures force the extended family to legitimize geographical mobility, because technological improvements in communication systems have minimized the socially disruptive forces of geographical distance, and because an extended family can provide important aid to nuclear families without interfering with the occupational system. In support of these views, data are presented from a survey of 920 wives in the Buffalo urban area.

THIS is the second of two companion papers, both of which seek to demonstrate that *modified* extended family relations are consistent with democratic industrial society.[1] These papers, then, attempt to modify Parson's hypothesis that the isolated nuclear family is the only type which is functional for such a society.[2] Because Parsons so clearly relates his hypothesis to a more general theory of class and business organization there is considerable value in keeping his point of view in the forefront of discussion, for its modification under such circumstances provides rich intellectual dividends.

Parsons assumes only one kind of extended family relational pattern, the "classical" type exemplified in the Polish and Irish peasant families.[3] There is some evidence, however, for the existence of a modified [4] extended family that is theoretically more relevant and empirically more predictive than either of the two alternatives posed by Parsons' hypothesis—the isolated nuclear family and

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[1] The first paper is Eugene Litwak, "Occupational Mobility and Extended Family Cohesion," *American Sociological Review,* 25 (February, 1960), pp. 9–21.

[2] Talcott Parsons, "The Social Structure of the Family," in Ruth N. Ashen, editor, *The Family: Its Function and Destiny,* New York: Harper, 1949, pp. 191–192.

[3] These families were marked by geographical propinquity, occupational integration, strict authority of extended family over nuclear family, and stress on extended rather than nuclear family relations.

[4] The modified extended family differs from past extended families in that it does not require geographical propinquity, occupational nepotism, or integration, and there are no strict authority relations, but equalitarian ones. Family relations differ from those of the isolated nuclear family in that significant aid is provided to nuclear families, although this aid has to do with standard of living (housing, illness, leisure pursuits) rather than occupational appointments or promotions.