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Similar considerations apply to almost all other differences among seemingly discordant sociological theories of social change, among the classifications of social groups, cultural systems, repeated "physiological processes" within systems, and "evolutionary trends," and among many other basic theories. Almost all of them contain part of the truth—some a larger, some a smaller part—and these sound parts can be, and will be increasingly, integrated into scientifically more adequate theories in the future sociology.

Such, in brief, are the reasons for my prognosis of the shape of integral sociology to come. Of the two roads, sociology will choose the road of creative growth and will

eventually enter its new period of great syntheses. I hope that in this conjectural prognosis I may be as lucky as in my previous prognostications of the wars, revolutions, liberation in man of "the worst of the beasts," dictatorships, and other changes in sociocultural life, which I did at the end of the 1920's and reiterated in considerable detail in my *Dynamics*.¹⁰ Despite severe criticism of my "forecastings" almost all of them have come to pass. I hope that my guess of "the shape of sociology to come" will also be confirmed by its objective development in the future.

¹⁰ See *Dynamics*, *op. cit.*, Vol. III, Ch. 16 and Vol. IV, Ch. 17, and *The Crisis of Our Age*, New York: E. P. Dutton, 1941.

THE COHORT AS A CONCEPT IN THE STUDY OF SOCIAL CHANGE *

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Society persists despite the mortality of its individual members, through processes of demographic metabolism and particularly the annual infusion of birth cohorts. These may pose a threat to stability but they also provide the opportunity for societal transformation. Each birth cohort acquires coherence and continuity from the distinctive development of its constituents and from its own persistent macroanalytic features. Successive cohorts are differentiated by the changing content of formal education, by peer-group socialization, and by idiosyncratic historical experience. Young adults are prominent in war, revolution, immigration, urbanization and technological change. Since cohorts are used to achieve structural transformation and since they manifest its consequences in characteristic ways, it is proposed that research be designed to capitalize on the congruence of social change and cohort identification.

SOCIAL CHANGE AND DEMOGRAPHIC METABOLISM

THIS essay presents a demographic approach to the study of social change. The particular meaning here given to change is structural transformation rather than the network of actions and interactions predicated in the routine operation of the institutional structure. Discussion is restricted to the variations in social organization that are reflected in measurements on individuals, summarized in aggregate distributions of performances and characteristics. Changes in an individual throughout

his life are distinguishable from changes in the population of which he is a component. The biological ineluctability of the individual life cycle carries no necessary implication for transformation of the population. Every society has pretensions to an immortality beyond the reach of its members. The lives and deaths of individuals are, from the societal standpoint, a massive process of personnel replacement, which may be called "demographic metabolism." This essay is concerned with interdependencies between social change and population process, including in the latter both demographic metabolism and the life cycles of individuals considered in the aggregate.

Society is a functioning collectivity of or-

* Revision of a paper read at the annual meeting of the American Sociological Association, August, 1959.

ganic components. It persists as if independent of its membership, continually receiving raw material by fertility and discharging depleted resources by mortality. To survive, it must meet the challenge to persistence implicit in this continual change of membership, and especially the incessant "invasion of barbarians." Every individual arrives on the social scene literally without sociopsychological configuration. As a requisite for effective performance, the society seeks and promotes a minimal degree of stability and predictability, and frequently succeeds. The agencies of socialization and social control are designed to give the new member a shape appropriate to the societal design.

Perhaps stability is a more likely institutional goal than innovation because it is simpler and safer, at least in the short run, but any fixed set of solutions to problems posed by a threatening environment becomes a liability whenever such problems change. The capacity for societal transformation has an indispensable ally in the process of demographic metabolism. Mortality and fertility make flexibility possible just as they make stability problematic. The continual emergence of new participants in the social process and the continual withdrawal of their predecessors compensate the society for limited individual flexibility. For every species the inevitability of death impels the development of reproduction and thus variation and evolution; the same holds for societies. The society whose members were immortal would resemble a stagnant pond.¹ Of course death is no more an unmixed blessing to the society than it is an unmixed curse to the individual. Metabolism may make change likely, or at least possible, but it does not guarantee that the change will be beneficial. As a minimum, mortality permits perennial reappraisal of institutionalized formulae.

The aggregate by which the society counterbalances attrition is the birth cohort, those persons born in the same time interval and aging together. Each new cohort makes

fresh contact with the contemporary social heritage and carries the impress of the encounter through life. This confrontation has been called the intersection of the innovative and the conservative forces in history.² The members of any cohort are entitled to participate in only one slice of life—their unique location in the stream of history. Because it embodies a temporally specific version of the heritage, each cohort is differentiated from all others, despite the minimization of variability by symbolically perpetuated institutions and by hierarchically graduated structures of authority.

To assert that the cause of social change is demographic replacement would be tantamount to explaining a variable by a constant, yet each fresh cohort is a possible intermediary in the transformation process, a vehicle for introducing new postures. The new cohorts provide the opportunity for social change to occur. They do not cause change; they permit it. If change does occur, it differentiates cohorts from one another, and the comparison of their careers becomes a way to study change. The minimal basis for expecting interdependency between intercohort differentiation and social change is that change has variant import for persons of unlike age, and that the consequences of change persist in the subsequent behavior of these individuals and thus of their cohorts.

For the most part, the literature on the cohort approach is divisible into two almost antipodal categories. On the one hand, the cohort concept, under the label "generation," has long been used by historians of the arts—in rebellion against the Procrustean frame of chronological sections favored by conventional historians—as well as by political journalists and other humanistic interpreters of the passing scene.³ The other field of application has been the work of

² Robert M. MacIver, *The Challenge of the Passing Years*, New York: Pocket Books, 1963, pp. 110–111.

³ Julius Petersen, *Die Literarischen Generationen*, Berlin: Junker and Dunnhaupt, 1930; Henri Peyre, *Les Générations Littéraires*, Paris: Bowin, 1948; Yves Renouard, "La notion de génération en histoire," *Revue Historique*, 209 (1935), pp. 1–23. The outstanding sociological contribution is: Karl Mannheim, "The Problem of Generations," in *Essays on the Sociology of Knowledge*, New York: Oxford University Press, 1952, pp. 276–322.

¹ Lemuel Gulliver reported that the Luggnaggians solved the problem with their Struldbruggs by desocializing them at 80. Comte hypothesized that progress is maximized by a length of life neither too ephemeral nor too protracted. Harriet Martineau, *The Positive Philosophy of Auguste Comte*, London: Trübner, n.d., Vol. II, pp. 152–153.

demographers, particularly the recent redirection of the study of fertility time series away from the period-by-period format toward an appraisal of temporal variations from cohort to cohort.⁴ Although written by a demographer, the present essay is concerned not with the many contributions to technical demography which utilize the cohort concept, but rather with the sociological arguments underlying it, and the conceptualization of social change it suggests.

THE COHORT FROM A MACROANALYTIC STANDPOINT

A cohort may be defined as the aggregate of individuals (within some population definition) who experienced the same event within the same time interval. In almost all cohort research to date the defining event has been birth, but this is only a special case of the more general approach. Cohort data are ordinarily assembled sequentially from observations of the time of occurrence of the behavior being studied, and the interval since occurrence of the cohort-defining event. For the birth cohort this interval is age. If t is the time of occurrence and a is the age at that time, then the observations for age a , time t , apply (approximately) to the cohort born in year $t-a$, as do observations for age $a-1$, time $t-1$, and so forth.

The cohort record is not merely a summation of a set of individual histories. Each cohort has a distinctive composition and character reflecting the circumstances of its unique origination and history. The lifetime data for one cohort may be analyzed and compared with those for other cohorts by all the procedures developed for a population in temporal cross-section. The movement of the cohort, within the politico-spatial boundaries defining the society, is a flow of person-years from time of birth to the death of the last survivor. This differs from a synthetic cross-section because time and age change *pari passu* for any cohort. A cohort has an age distribution of its person-years of exposure, provided by its successive sizes age by age. The age distribution varies from cohort to cohort because of mortality and migration.

⁴ Norman B. Ryder, "La mesure des variations de la fécondité au cours du temps," *Population*, 11 (1956), pp. 29-46.

Thus a cohort experiences demographic transformation in ways that have no meaning at the individual level of analysis, because its composition is modified not only by status changes of the components, but also by selective changes of membership.

The most evident manifestation of inter-cohort differences is variation, and particularly abrupt fluctuation, in cohort size, attributable to changes in the numbers of births from year to year or, less commonly, from brief heavy migration or mortality the impact of which is limited to a narrow age span. A cohort's size relative to the sizes of its neighbors is a persistent and compelling feature of its lifetime environment. As the new cohort reaches each major juncture in the life cycle, the society has the problem of assimilating it. Any extraordinary size deviation is likely to leave an imprint on the cohort as well as on the society. In the United States today the cohorts entering adulthood are much larger than their predecessors. In consequence, they were raised in crowded housing, crammed together in schools, and are now threatening to be a glut on the labor market. Perhaps they will have to delay marriage, because of too few jobs or homes, and have fewer children. It is not entirely coincidental that the American cohorts whose fertility levels appear to be the highest in this century were those with the smallest numbers.

Size is only one characteristic by which the cohort aggregate is differentiated from its temporal neighbors. Many statistical facets of cohort composition, broadly influential as independent variables, differ at age zero from one cohort to the next, and remain approximately unchanged throughout the cohort's history. Consider the various inherited items like race, mother tongue and birth-place. The cohort is not homogeneous in such characteristics, but the distribution of its heterogeneity tends to be fixed throughout its life in a shape which may differ from those of preceding and succeeding cohorts. Other birth and childhood characteristics are differentiating: for example, family structure by age, sex and generation determines the relative frequency of only children, younger and older children of like or unlike sex, and younger or older parents. Intercohort variability in these character-

istics may derive from fertility, mortality or migration, to the extent that these are selective for the characteristic concerned and variable through time. Differential migration is the most striking influence in the short run, but differential natural replacement is generally more important in the long run.

Cohort differentiation is not confined to characteristics fixed at birth. Other status changes tend to be highly localized by age, relatively universal in occurrence, and influential in the rest of life.⁵ Age is not only a general rubric for the consequences, rewards and penalties of experience; it is an important basis for role allocation in every society.⁶ Age ascription is the cross-sectional counterpart of cohort differentiation. Similarities of experience within and differentiation of experience between age groups are observable in every culture. Similar functioning is imposed by society on those sharing an age at a particular time. Any legislation that is age-specific, either *de jure*, or, by virtue of its content, *de facto*, differentiates cohorts. Such norms give a distinctive age pattern to the life cycle of each cohort. If age-specific norms, or the context within which they are being applied, change through time, cohort experiences will be differentiated.

Thus marriage has a high probability of occurring within a narrow age span and is responsive to the exigencies of the moment. The members of a cohort are influenced in the age at which they marry, the persons they choose to marry and even their eventual likelihood of marriage by the particular set of circumstances prevailing at the time they reach marriage age. The outcome is not so individualistic as the romantic love ethos might suggest. The state of the marriage market is an aggregate phenomenon: the probability of marriage depends not only on an individual's personal characteristics, but also on the comparative characteristics of all others of the same sex, and also on the availability of those of the opposite sex who meet

the approximate criteria of nubility. Underlying this is the propitiousness of the period for marriage, the relevance of which for cohort delineation depends directly on the age variance of marriage for the cohort. The same is true of any major event in personal history which is concentrated by age.

The time of completing education is also highly age-specific in its location and influential both in personal futures and in societal change. The intimate relation of education to social change is properly emphasized in programs of social and economic development. It is "the modern world's cutting edge." Changes through time in the proportions completing various stages of education are familiar trends in modern life which provide an indelible differentiation of cohort character and behavior.⁷ The differentiation encompasses not only mere duration but also the quality of teaching, the nature of instructional materials and the content of the curriculum.⁸

The consequences of distinctive educational preparation prevail in the cohort's occupational flow-chart. The experience of the cohort with employment and labor force status begins with the character of the employment market at its time of entry.⁹ The cohort is distinctively marked by the career stage it occupies when prosperity or depression, and peace or war, impinge on it. The occupational structure of the cohort is not crystallized upon entry into the labor force, but the configuration imposed on individual economic histories has a high sequential dependence through time.¹⁰ One explanation advanced for the baby boom is that the cohorts responsible had an unprecedented edu-

⁷ Talcott Parsons, "The School Class as a Social System: Some of its Functions in American Society," *Harvard Educational Review*, 20 (1959), pp. 297-318.

⁸ Nelson N. Foote, "Anachronism and Synchronism in Sociology," *Sociometry*, 21 (1958), pp. 17-29.

⁹ Bracker noted that the graduates of American universities of the class of 1929 were united by the distinction of being educated for prosperity and then vaulted into depression. Milton Bracker, "There's No Class Like The Class of '29," *New York Times Magazine*, (May 23, 1954), pp. 14 *et seq.*

¹⁰ Abram J. Jaffe and Robert O. Carleton, *Occupational Mobility in the United States 1930-1960*, New York: Columbia University Press, 1954.

⁵ Bernice L. Neugarten, J. W. Moore, and J. C. Lowe, "Age Norms, Age Constraints and Adult Socialization," *American Journal of Sociology*, 70 (1965), pp. 710-717.

⁶ Marion J. Levy, Jr., *The Structure of Society*, Princeton, N. J.: Princeton University Press, 1952, p. 307.

cational advantage when they sought their first jobs.¹¹ Projections of labor force participation rates for women have been successfully designed on a cohort basis, because of the observed continuity of differences between cohorts.¹²

The attractive simplicity of birth cohort membership as signified by age cannot conceal the ways in which this identification is cross-cut and attenuated by differentiation with respect to education, occupation, marital status, parity status, and so forth. Every birth cohort is heterogeneous. To some extent all cohorts respond to any given period-specific stimulus. Rarely are changes so localized in either age or time that their burden falls exclusively on the shoulders of one cohort. Intercohort analysis is profitably supplemented with cross-classification by relevant compositional variables.¹³ The meaning of sharing a common historical location is modified and adumbrated by these other identifying characteristics.¹⁴ Different subsets of the cohort have different time patterns of development. Youth of manual and nonmanual origins differ in length of educational preparation and age at marriage. The various members of a cohort follow differently paced occupational lines. This may be especially true of intellectual histories. The differing tempi of careers in literature, music and mathematics yield different productivity modes by age, and therefore responsiveness to different historical circumstances, despite membership in the same birth cohort.¹⁵

As a minimum, the cohort is a structural category with the same kind of analytic utility as a variable like social class.¹⁶ Such

structural categories have explanatory power because they are surrogate indices for the common experiences of many persons in each category. Conceptually the cohort resembles most closely the ethnic group: membership is determined at birth, and often has considerable capacity to explain variance, but need not imply that the category is an organized group.

Two research suggestions may be advanced. In the first place, age should be so interpreted in every statistical table as to exploit its dual significance—as a point in the cohort life cycle and as a temporal location. Age is customarily used in statistical analyses merely in the former role, if not as a cross-sectional nuisance to be controlled by procedures like standardization. This implicitly static orientation ignores an important source of variation and inhibits the progress of temporal analysis. In the second place, age-cum-cohort should be used not only as a cross-classification to explain the internal variations of other groups, but as a group-defining variable in its own right, in terms of which distributions by other variables may be compared through time. In this way, research results may be compared in cumulated fashion, linking the outputs of the various studies using the same cohort identifications, just as has been done with other quasi-group categorizations. Each such study can enhance the significance of others for the same cohort. Comparison of such composite cohort biographies would yield the most direct and efficient measurement of the consequences of social change.

The proposed orientation to temporal differentiation of cohorts emphasizes the context prevailing at the time members of the cohort experience critical transitions. The approach can be generalized beyond the birth cohort to cohorts identified by common time of occurrence of any significant and enduring event in life history. Cohorts may be defined in terms of the year in which they completed their schooling, the year they married, the year in which they migrated to the city, or the year in which they entered

¹¹ Richard A. Easterlin, "The American Baby Boom in Historical Perspective," *American Economic Review*, 51 (1961), pp. 869-911.

¹² John D. Durand, *The Labor Force in the United States, 1890-1960*, New York: Social Science Research Council, 1948.

¹³ William M. Evan, "Cohort Analysis of Survey Data: a Procedure for Studying Long-term Opinion Change," *Public Opinion Quarterly*, 23 (1959), pp. 63-72.

¹⁴ Michel Ralea, "Le problème des générations et la jeunesse d'aujourd'hui," *Rencontres Internationales de Genève, La vie et le temps*, Neuchâtel: Baconnière, 1962, pp. 59-73.

¹⁵ Bennett M. Berger, "How Long is a Generation?" *British Journal of Sociology*, 11 (1960), pp. 557-568.

¹⁶ Seymour Martin Lipset, Paul G. Lazarsfeld,

Allen H. Barton, and Juan Linz, "The Psychology of Voting: an Analysis of Political Behavior," in Gardner Lindzey (ed.), *Handbook of Social Psychology*, Cambridge, Mass.: Addison-Wesley, 1954, Vol. II, pp. 1124-1175.

the labor force full-time.¹⁷ Each of these events is important in identifying the kinds of situation to which persons respond differently, and establishing a status to which future experiences are oriented. The research implication of this viewpoint is that more effort should be devoted to collecting items of dated information, to identify not only statuses but times of entry into them. Birth date serves as a surrogate for cohort identification by date of occurrence of other relevant events. It is a satisfactory approximation to the extent that variance in the age at which the event in question occurs is small. Thus the cohort approach may be generalized to consider any class of event in terms of the experience of successive cohorts defined by time of initial exposure to the risk of occurrence of that event.

The strategic focus for research on social change is the context under which each cohort is launched on its own path. The prototype is the cohort of persons entering the labor force each year. The annual meeting of prospective employers and employees produces an occupational distribution which manifests and foretells social change. The process requires macroanalysis because the possibility of an individual finding a particular job, or of an employer securing a needed talent, is a function of the entire set of comparative characteristics of all participants in the market. The educational system has prepared the new labor force entrants for this confrontation. Although the stimulus for innovation is most likely to come from the employers, the feasibility of new directions depends in part on how well they have been anticipated by the educational system. Indeed the conditions determining labor supply go all the way back to the composition of the relevant cohorts at birth. The implicit link between reproduction in one year, and characteristics of the labor market some two decades later, is an important channel for transmission of disturbances through time.

Out of the confrontation of the cohort of any year and the societal structures into

which it seeks entry, a shape is forged which influences the directions in which the structures will change. More generally, the proximate indication of direction of change is the movement of personnel from one status to another, as the result of quasi-market activity in one or another role sphere. The market metaphor extends into the consideration of differential rewards, and thus of changing role evaluations, cognate with the Davis-Moore theory of social differentiation.¹⁸ The importance for social change of the kind of selectivity exercised in forming the cohort is largely obscured in this essay by exclusive attention to the birth cohort, which is more random in composition than any other cohort type. The study of the formation of cohorts defined in terms of specific role markets promises to provide a focused view of the processes that transform the different parts of the social system.

THE IMPACT OF HISTORICAL CHANGE ON COHORTS

The preceding section emphasized several stages in the cohort life cycle at which major transitions occur, and proposed that the temporal context of these transitions would differentiate cohorts. The same point can be made from the opposite direction, by observing types of major change, and the extent to which participation in them is age-specific and therefore cohort-differentiating. All those alive at the same time are contemporaries but they respond and contribute to social history in different ways unless they are also coevals. In particular, the potential for change is concentrated in the cohorts of young adults who are old enough to participate directly in the movements impelled by change, but not old enough to have become committed to an occupation, a residence, a family of procreation or a way of life. Furthermore the fact of change facilitates their development of other orientations than those of their parents and their community.

The most dramatic instance is war. Participation in war is limited in age, and the extent of war is limited in time. The Great War weakened a whole cohort in Europe

¹⁷ As an exotic example, Hyman Enzer has recently completed a study of the cohort of all 118 American authors whose first novels came out in 1958. See David Dempsey, "First Novelists, Last Words," *Saturday Review*, 66 (October 12, 1963), p. 34.

¹⁸ Kingsley Davis and Wilbert E. Moore, "Some Principles of Stratification," *American Sociological Review*, 10 (1945), pp. 242-247.

to the extent that normal succession of personnel in roles, including positions of power, was disturbed. Sometimes the old retained power too long; sometimes the young seized power too soon.¹⁹ The most obvious effect of war is the mortality and morbidity of the participants, but war transforms non-combatants as well. Several novels have utilized the theme of the peculiar poignancy of those who were old enough to comprehend the war but not old enough to participate in it.²⁰ The intellectual development of Mannheim, who brought the cohort concept into sociology, can be partly explained by the historical location of his cohort.²¹ Teenagers in France can now meet easily with German youth groups because they are free of war memories.²² German youths moving into the labor force are reported to be repudiating the labor discipline of their elders, whom they identify with the Nazi era.²³ The cohort consequences of war extend into the intellectual realm. Following the decimation of some French cohorts in the Great War, a split developed between those following the traditional path in mathematics, and those concerned with creating a new vocabulary. The latter produced the bible of modern mathematics, the *Elements of Bourbaki*.²⁴

Anyone reading the newspapers of the past decade needs no reminder of the prominence of uncommitted cohorts in the task forces of nationalistic or revolutionary political movements. The persons most active in the Protestant Reformation and in the Revolutions of England, France and America

were youthful.²⁵ The contemporary "Children's Crusade" is too recent to have been investigated carefully, but there are some suggestive analyses of the position of youth in revolutionary change.²⁶ In his discussion of China, Levy places primary emphasis on the role of the "ch'ing-nien" in societal transformation:²⁷ this term for young adults has been retained by the aging leaders of the Communist movement.²⁸ Eisenstadt has documented the experience of youth movements in Israel and in prewar Germany. Both of these were rebellions against elders and their ideas, viewing youth alone as pure enough to accomplish the task of re-creating society.²⁹ Perhaps the affiliation of youth with the revolutionary phase of a charismatic movement is linked with the appeal for them of techniques of violence.³⁰ Young people who are students, or unemployed, in the big cities of developing nations, are likely to be available for demonstrations and have large places in which to congregate.

A popular but unsupportable argument is

²⁵ Pitirim A. Sorokin, *Society, Culture and Personality*, New York: Harper, 1947, p. 193.

²⁶ For example, *U. S. News and World Report*, June 6, 1960; *Look*, January 3, 1961. These accounts are more impressive for the frequency than for the detail of instances reported. Somewhat more helpful is Hanson Baldwin, "Turkey's New Soldiers," *New York Times*, June 5, 1960.

²⁷ Marion J. Levy, Jr., *The Family Revolution in Modern China*, Cambridge, Mass.: Harvard University Press, 1949, pp. 297 *et seq.*

²⁸ Irene Taeuber has advocated a research program for China based on the fact that the Communists have now been in power 15 years; change is imminent as these new cohorts are ushered in. Irene B. Taeuber, "China's Population: An Approach to Research," *Social Science Research Council Items*, 18 (1964), pp. 13-19.

²⁹ Samuel N. Eisenstadt, *From Generation to Generation*, Glencoe, Ill.: The Free Press, 1956, pp. 98 *et seq.* Many accounts of the Negro civil rights movement in the United States have contained the assertion that Negro youth provide the initiative for protest, in impatience with the gradualism of their elders.

³⁰ Hans H. Gerth, "The Nazi Party: Its Leadership and Composition," *American Journal of Sociology*, 45 (1940), pp. 530-571. Rintala has suggested that people who undergo disruptive historical experiences during their formative years may be unusually vulnerable to totalitarian appeals. M. Rintala, "The Problem of Generations in Finnish Communism," *American Slavic and East European Review*, 17 (1958), pp. 190-202.

¹⁹ An extensive bibliography is given in Sigmund Neumann, *Permanent Revolution*, New York: Harper, 1942.

²⁰ Ernst Gläser, *Jahrgang 1902*, Berlin: Gustav Kiepenheuer, 1928; Vera Brittain, *Born 1925*, London: Macmillan, 1949; Richard Hughes, *The Fox in the Attic*, New York: Signet, 1963.

²¹ John Kecscemeti, the preface to Mannheim, *op. cit.* In turn, Mannheim ascribes growing interest in the cohort problem to political discontinuities in the late 19th century.

²² A movie opened in Paris in 1963, called: "Hitler? Never Heard of Him."

²³ Wagner has discussed the significance for the German labor movement of the absorption of cohorts who grew up under National Socialism. Helmut R. Wagner, "A New Generation of German Labor," *Social Research*, 23 (1956), pp. 151-170.

²⁴ Lucienne Félix, *The Modern Aspect of Mathematics*, New York: Science Editions, 1961.

that the emergence of a new cohort somehow guarantees progress.⁸¹ The entry of fresh cohorts into the political stream represents a potentiality for change, but without specification of its content or direction. The prominent role played by youth in the totalitarian movements of this century has been widely noted.⁸² A new cohort provides a market for radical ideas and a source of followers, and they are more likely than their elders to criticize the existing order.⁸³ Replacement of much older by much younger leaders, as Eisenhower by Kennedy, may have a profound symbolic impact. The direction of change may be to the left or to the right, toward democracy or toward totalitarianism, but whatever the trend, it is most manifest in youth.

Whether new cohorts are more or less crucial to the implementation of a revolution, they are clearly differentiated by its occurrence.⁸⁴ The case of the Soviet Union is well documented.⁸⁵ Stalin created a generation of modern technicians to supplant the old Bolsheviks, because the latter's skills in the dialectic and in conspiratorial politics did not suit the age of machine tools and modern armies. Now the decision system is passing into the hands of cohorts brought up under socialism.⁸⁶ Journalists have recently begun to draw the line between those brought up under Stalin and those whose impressionable years coincided with de-Stalinization.⁸⁷ Although these latest cohorts are not yet in positions of political power, they

are beginning to have some influence, particularly through cultural activities.

The adaptive transformation of revolutionary movements has frequently been discussed from a structuralist standpoint.⁸⁸ The audacity and independence required to overthrow a regime are not the skills requisite for administering a stable government in the sequel. The lions and the foxes must change places. If this comparative statics model is reconsidered in processual terms, it is clear that cohort differentiation will result. Rostow has suggested naming the process the "Buddenbrooks dynamics."⁸⁹ If change occurs, those who are brought up in the new world will differ from those who initiated the change. In consequence, more change will occur, but interest is transferred from wrecking a hated system to the task of constructive continuity. Gradually death claims both winners and losers of the old struggle. Support for the new system becomes broad and stable. Thus the cohort succession serves as cause and effect in the phases of revolutionary transformation.

An experiential chasm between cohorts also occurs when immigration or colonization produces an intersection of two cultures. The European immigrant arriving in the New World identified himself with an ethnic group resembling the culture in which he was raised. His children went to American schools, chose American playmates, and often escaped from the subculture.⁴⁰ The parents' inadequacy as a basis for orientation toward the new society reinforced the children's resort to peer groups. Similarly, the impact of western culture on primitive peoples is likely to yield disruption of family life, changing mutual evaluation of the generations, and ideological identification of youth with resistance. Kwame Nkrumah recently remarked on the appearance in Ghana of a new cohort without firsthand knowledge of colonial rule and without the habit of obsequiousness to the European.⁴¹

⁸¹ Mentré reports approvingly Comte's opinion to this effect: François Mentré, *Les Générations Sociales*, Paris: Editions Bossard, 1920; Mannheim reports disapprovingly Cournot's like opinion, *op. cit.*, "The Problem of Generations," p. 297.

⁸² Rudolf Heberle, *Social Movements*, New York: Appleton-Century-Crofts, 1951, Ch. 6.

⁸³ This may not be so if youth is directly affected by the change, as with school desegregation. Cf. H. H. Hyman and P. B. Sheatsley, "Attitudes toward Desegregation," *Scientific American*, 211 (1964), pp. 16-23.

⁸⁴ Robert P. Hinshaw, "The Relationship of Information and Opinion to Age," Ph.D. dissertation, Princeton University, 1944, p. 69.

⁸⁵ Raymond A. Bauer, Alex Inkeles, and Clyde Kluckhohn, *How the Soviet System Works*, New York: Vintage Books, 1960.

⁸⁶ Cf. Walt W. Rostow, *The Stages of Economic Growth*, New York: Cambridge University Press, 1960, pp. 134-135.

⁸⁷ Priscilla Johnson, "The New Men of the Soviet Sixties," *Reporter*, 28 (May 9, 1963), pp. 16-21.

⁸⁸ Talcott Parsons, *The Social System*, Glencoe, Ill.: The Free Press, 1951, p. 507.

⁸⁹ *Op. cit.*

⁴⁰ Will Herberg, *Protestant, Catholic, Jew* (rev. ed.), New York: Doubleday, 1960, pp. 28-31.

⁴¹ Mannoni has provided an absorbing account of the structural complexities in a population containing two generations of colonists and two generations of natives. Dominique O. Mannoni, *Prospero and Caliban*, London: Methuen, 1956.

Traumatic episodes like war and revolution may become the foci of crystallization of the mentality of a cohort. The dramatic impact may mark indelibly the "naïve eyes and virgin senses" of the cohort in the vanguard and change them into an entelechy with an explicit mission, a virtual community of thought and action. Yet such vivid experiences are unnecessary to the argument. Cohorts can also be pulled apart gradually by the slow grind of evolutionary change. The nucleus and epitome of social change, as determinant and consequence, is the city. Urbanization is the outstanding manifestation of the world transformation of the past few centuries. Cities have been populated largely by the continual infusion of new cohorts. Rural-urban migration is highly selective of younger persons; changes requiring population transfer will be undertaken only by the more flexible and less burdened members of the society.⁴² The young move away from the community that would envelop them in the traditional mold and into a new way of life. America may be less tradition-bound than Europe because fewer young couples establish homes in the same place as their parents.

The principal motor of contemporary social change is technological innovation. It pervades the other substructures of society and forces them into accommodation. The modern society institutionalizes this innovation and accepts it as self-justifying. To the child of such a society, technological change makes the past irrelevant. Its impact on the population is highly differential by age, and is felt most by those who are about to make their lifelong choices. Technological evolution is accomplished less by retraining older cohorts than by recruiting the new one, and the age of an industry tends to be correlated with the age of its workers. Accessions to the labor force flow most strongly into the new and growing industries; separations from the labor force are predominantly out of declining industries.⁴³ The distinctive age

⁴² Donald J. Bogue, "Techniques and Hypotheses for the Study of Differential Migration: Some Notes from an Experiment with U. S. Data," *International Population Conference*, New York, 1961, Vol. I, pp. 405-412.

⁴³ Amos H. Hawley, *Human Ecology*, New York: Ronald, 1950, p. 25; Frederick Le Gros Clark and Agnes Dunne, *Ageing in Industry*, London: Nuffield Foundation, 1955. On December 1, 1963, a

composition of the industrial structure is nowhere more evident than in the rapid industrialization of a previously traditional economy. In effect, it is accomplished not so much by educating the population as a whole as by introducing each new cohort in turn to the modern way of life. In traditional society, age is a valid surrogate for relevant experience, but when the industrial revolution occurs, age comes to signify historical location and degree of disfranchisement by change, rather than the due prerogatives of seniority.

INDIVIDUAL DEVELOPMENT AND THE FAMILY

Implicit in the foregoing account of the interdependency of social change and cohort differentiation is the assumption that an individual's history is highly stable or at least continuous. If a person's future were molded irrevocably by his earliest experiences, there would be a strong case for assembling data for aggregates of individuals on a cohort-by-cohort basis. The model dominating the literature on human development presents life as a movement from amorphous plasticity through mature competence toward terminal rigidity.⁴⁴ The preparatory phase, during which individuals are susceptible to influence, is distinguished from the participatory phase, during which their predetermined destiny is unfolded. The central sociopsychological postulate in the spirit of Freud is that the core of personality is laid down at the beginning of life; what may look like changes later are merely minor variants on the established theme. The popularity of this assertion is as indubitable as its irrefutability. Discussion in this vein confuses ineluctable species characteristics

federal arbitration board authorized American railroads to eliminate most of their firemen, by attrition.

⁴⁴ The principal sources for this discussion are: Irvin L. Child, "Socialization," in Gardner Lindzey (ed.), *Handbook of Social Psychology*, Cambridge, Mass.: Addison-Wesley, 1954, Vol. II, pp. 655-692; John E. Anderson, "Dynamics of Development: System in Process," in Dale B. Harris, editor, *The Concept of Development*, Minneapolis: University of Minnesota Press, 1957, pp. 25-46; Alan T. Welford, *Ageing and Human Skill*, New York: Oxford University Press, 1958; James E. Birren, "Principles of Research on Aging," in James E. Birren (ed.), *Handbook of Aging and the Individual*, Chicago: University of Chicago Press, 1959, pp. 3-42.

and culturally variable designs, and fails to cope with the phenomenon of societal change.

In the conventional development model, the very young organism is presented as fluid, polymorphous, multipotential and perverse, susceptible to suggestion and rudimentary of will. Each interaction between organism and environment modifies the shape the organism takes into the next encounter. The earlier a situation imposes itself, the more likely it is to add an enduring element, partly because early learning is general enough to escape outright contradiction in subsequent particular experience. Gradually capacities are shaped and strengthened by use, with increasing self-regulation and independence of fluctuations. New experience is assimilated on the stratum of first impressions in a way that preserves self-consistency. The self-perception of persistence is ratified by others' recognition.

Thus the organism acquires an adult's efficiency at the price of a child's versatility. New ideas compete on unequal terms with old ones, because the latter have a place in the structure and have been used to direct behavior. Systematization and ritualization of response frees energy for higher-level integration. When a new situation accords with previous experience learning may be rapid, but not when it competes with established responses. The products of earlier education become debris that chokes off later growth. In due course the adult organism rigidifies and deteriorates into senility.

Any model of individual development which postulates early crystallization is embarrassing to the person explaining rapid social change. If personality is viewed as a quasi-hereditary phenomenon, the possibilities of change are reduced, following the biological analogy, to evolution through natural selection—a very slow process—and to mutation. Hagen finds himself in this box in his attempt to construct a theory of social change concordant with his belief that persons cannot move in later life from psychological stances established in childhood.⁴⁵ Hagen's mutation-like proposal is that parents who encounter status frustration cannot

change themselves, but their children may perceive the source of parental anxiety and avoid it by retreating. Their children, in turn, by a similar unconscious perception, may become innovators. The tempo of transformation is thus constrained to a generational rhythm.

The complexity of this construction is a direct consequence of two articles of faith: that social change cannot occur without personality change, and that personality change cannot occur once childhood is past. The present writer would propose that the social system rather than the personality system belongs at the center of any model of societal transformation. In this view personality is considered a by-product, at the individual level, of socialization procedures designed to achieve various objectives at the societal level. Socialization is a process of committing an individual to a term of service in a group, by progressively confining his behavioral potentialities within an acceptable range and by preparing him for the types of role he will be expected to play.⁴⁶ Far from being monopolized by the parents, socialization is a continuous process throughout life, shared in by every group of which a person may become a member. Even if the family-fostered self were immune to modification, the society could still retain the necessary degrees of freedom by altering the criteria for selection, from among different personality types, to fill the various roles.

Important to the present argument are two propositions: first, that social change implies a transformation of the relative contributions to socialization made by the various possible agencies of socialization; second, that this transformation identifies the cohort as a social reality, reflecting and implementing the social change to which it owes its existence. The principal socialization agency in every society is the family. It is an omnipresent authoritarian component of the child's environment, a primary group satisfying virtually the entire range of needs and furnishing the context within

⁴⁵ Everett E. Hagen, *On The Theory of Social Change*, Homewood, Ill.: The Dorsey Press, 1962.

⁴⁶ William H. Sewell, "Some Recent Developments in Socialization Theory and Research," *Annals*, 349 (1963), pp. 163-181.

which the concept of self relative to others first arises. Family socialization is adequate to the extent that the structure of relationships portrayed and utilized in family life resembles that of the society into which the young adult must move. When a society breaks out of a static familistic mold, the family no longer suffices for the tasks of socialization.

Most writing about what is here called a cohort employs instead the term "generation," signifying all those within a broad (characteristically unspecified) age span during a particular epoch, and implicitly those with common characteristics because of common experiences. It is also used in synchronic structural analysis concerning relations between persons of markedly differing age, such as institutionalized deference.⁴⁷ For the sake of conceptual clarity, "generation" should be used solely in its original and unambiguous meaning as the temporal unit of kinship structure, and the first two ideas should be signified by the terms "cohort" and "relative age status" respectively. "Generation" may be a fitting general temporal referent in societies where the dominant mode of role allocation is ascription on the basis of kinship. In such a context cohort identity is often trivial because the bulk of temporal variation coincides with the life cycle, as reproduced in annual cross-section. But societies undergoing cultural revolution must generally break the grip of the family on the individual. In so doing they diminish the social significance of "generation," in both its kinship and relative age connotations, and produce the kind of social milieu in which the cohort is the most appropriate unit of temporal analysis.

A prominent theme in discussions of modern society is intergenerational conflict. Although some of this is probably intrinsic to the family life cycle, current analyses emphasize the exacerbation of the tendency by social change, through intercohort differentiation.⁴⁸ As an Arab proverb has it, "Men

resemble the times more than they do their fathers." Role differentiation that gives the old power over the young is justified when age is correlated strongly and positively with control of cultural content, but the correlation may even become negative during rapid social change because age differences in one direction signify cohort differences in the opposite direction.⁴⁹

Many writers have used the succession of cohorts as the foundation for theories of sociocultural dynamics.⁵⁰ This approach has been aptly labelled "generationism," because the writers mistakenly transfer from the generation to the cohort a set of inappropriate associations. Some generationists maintain that there is a periodicity to sociocultural change caused by the biological fact of the succession of generations at thirty-year (father-son) intervals.⁵¹ There is no such periodicity. Other generationists develop a conflict theory of change, pitched on the opposition between the younger and the older "generations" in society, as in the family. But a society reproduces itself continuously. The age gap between father and son disappears in the population at large, through the comprehensive overlapping of life cycles. The fact that social change produces intercohort differentiation and thus contributes to inter-generational conflict cannot justify a theory that social change is produced by that conflict. Generationists have leaped from inaccurate demographic observation to inaccurate social conclusion without supplying any intervening causality. All these works suggest arithmetical mysticism, and the worst of them, as Troeltsch said, are "*reine Kabbala*."

Youth Conflict," *American Sociological Review*, 5 (1940), pp. 523-535; Frederick Elkin and William A. Westley, "The Myth of Adolescent Culture," *American Sociological Review*, 20 (1955), pp. 680-684.

⁴⁹ This is a familiar literary theme, as in Turgenev's *Fathers and Sons*.

⁵⁰ For reviews of the literature, see: Mentré, *op. cit.*; Pitirim A. Sorokin, *Social and Cultural Dynamics*, New York: American Book Company, 1941, Vol. IV, pp. 504 *et seq.*; Renouard, *op. cit.*

⁵¹ The Spanish philosopher, Ortega y Gasset, and his disciple, Julian Marias, assert that modern history is punctuated by 15-year caesurae, beginning with 1626, the year Descartes turned 30. (*Vide* Renouard, *op. cit.*)

⁴⁷ Leonard D. Cain, Jr., "Life Course and Social Structure," in Robert E. L. Faris (ed.), *Handbook of Modern Sociology*, Chicago: Rand McNally, 1964, pp. 272-309.

⁴⁸ Kingsley Davis, "The Sociology of Parent-

CHANGING AGENCIES OF CHILD
SOCIALIZATION

With the advent of modern society, changes in the agencies of socialization establish a context favorable to the identification of cohorts. The individual mobility and achievement-based status required of a modern occupational structure seem much more harmonious with the conjugal family than with the traditional web of kinship obligations.⁵² Revolutionary regimes may adopt specific policies to reduce the importance of the family as an agency of socialization and as a bulwark of the old stratification system. Consider, for example, the Soviet emphasis on early education of the child away from home, the Chinese attempt to shift the locus of authority away from the older generation, and the Israeli use of the kibbutz to communalize child care and restrict parent-child interaction to the affectional realm. Such attempts to place collective identification above family solidarity may not have been completely successful⁵³ but they are consistent with reorientations throughout the modernizing world. The potentially perpetual consanguineal unit is being supplanted by a conjugal family with a limited lifetime, and the institutional scope of family affairs is narrowing.

In particular, the reallocation of responsibility for child socialization away from the family and toward the school on the formal level and the peer group on the informal level gives analytic form to the cohort, just as specific historical changes give it analytic content. Parental capacity to prepare the child for his adult roles depends on the simplicity and stability of life. In a society of specialization and change parents are inadequate models for children and the specialized agency of formal education must be created. The school develops a commitment to the implementation of societal values, teaches the skills needed to perform adult tasks, and contributes to manpower allocation. As the content of education evolves, it differentiates the knowledge of parent and

child, and equips successive cohorts with a progressively enlarged culture. To the extent that school instruction differs from what is learned at home, it provokes independent thought. The radical potentiality of education is clearest in the university, which has the function of discovering as well as transmitting knowledge.

By substituting teachers for parents, society symbolizes the difference in historical location between child and parent, and attenuates the bonds between them. Education expands in a modern society to encompass almost all members of each cohort and for a progressively longer age span, not only up into early adulthood but also down into the "formative" period cherished by personality theorists. The long time during which individuals are embedded in the lock-step age-hierarchical school system gives the cohort an ample opportunity to identify itself as a historical entity. The school is a cohort creator.

Socialization in every society is the function not only of institutionalized authorities but also of coevals. An increase in such "self-socialization" is to be expected during social change, because this makes the experiences of the peer group (the cohort) unique, and develops similarities within and differences between cohorts. One of Riesman's themes in *The Lonely Crowd* is the replacement of the inner-directed type, whose standards are his parents', by the other-directed type, whose standards are his contemporaries.⁵⁴ The congruence with the present position is obvious.

The peer group is a subset of one's cohort. It consists of people of the same age with whom one has attitude-forming relationships, or, to use an old-fashioned but etymologically apt term, one's cronies.⁵⁵ It is oriented to its members' needs and interests rather than to the pursuit of goals defined by external authority. Perhaps when a collectivity rather than an individual is being socialized, it develops a sense of cohort soli-

⁵² William J. Goode, *World Revolution and Family Patterns*, New York: The Free Press of Glencoe, 1962, Ch. 1.

⁵³ Yonina Talmon-Garber, "Social Structure and Family Size," *Human Relations*, 12 (1959), pp. 121-146.

⁵⁴ David Riesman, Reuel Denney and Nathan Glazer, *The Lonely Crowd*, New Haven: Yale University Press, 1950.

⁵⁵ Jesse Pitts, "The Family and Peer Groups," in Norman W. Bell and Ezra F. Vogel (eds.), *A Modern Introduction to the Family*, Glencoe, Ill.: The Free Press, 1960, pp. 266-286.

darity and alters the outcome of socialization. Although providing non-adult approval, it need not be deviant, and may even give strong support to the conventional moral code.⁵⁶

Peer groups are functional in modern society.⁵⁷ If the principles regulating family life harmonize with those of other institutional spheres, an individual can attain full membership in the society through behavior learned in the family. But modern society is regulated by criteria which contradict those appropriate to kinship. For the individual this poses the problem of transition from one universe of discourse to the other; for the society it poses the problem of developing bases of extra-familial solidarity. The solution is the peer group, which has the primary group characteristics of the family and the achievement orientation of the society.

It is tempting to treat the peer group phenomenon as signaling the creation of a sense of solidarity if not reality as a social group, and thus derive support for the view that a cohort is more than a mere category in statistical tables. Solidarity is encouraged by idealized self-definitions in reaction to ill-specified rights and responsibilities of the status, by sharing anxieties concerning imminent and hazardous transitions, and by explicit associations that encourage the development of attitudes unsanctioned by family or community. The age (and cohort) variance of membership in voluntary associations is smaller in youth than later, because small age differences mean more during development. The mass media aim specifically labelled appeals at these ages. Vocabularies specific to the age and time are invented to serve as communications channels and boundary-maintaining mechanisms.

In an epoch of change, each person is dominated by his birth date. He derives his philosophy from his historical world, the subculture of his cohort. The community of date equips each cohort with its own ex-

pense of time, its own style and its own truth. The ideas, sentiments and values of members of the same cohort converge; their actions become quasi-organized. As social change creates divergence in the experience of successive cohorts, it may transform them from locations into actualities.⁵⁸ It is possible for most of a society's youth to develop an ideological direction (though probably under adult leadership) but the burden of proof is on those who insist that the cohort acquires the organized characteristics of some kind of temporal community. This may be a fruitful hypothesis in the study of small groups of coevals in artistic or political movements but it scarcely applies to more than a small minority of the cohort in a mass society. Commonality is likely but not community.⁵⁹

Age-homogeneous groupings of children and adolescents are common to all societies. Mostly they remain undeveloped because kinship groups form the basic units of task performance. In some cases the cohort—known to anthropologists as an "age grade"—may function continuously throughout life. In the Hamitic culture of East Africa, for example, the age grade is a system of compulsory association enduring from puberty on, with permanent privileges and obligations. The system cuts across family lines, gives the individual interests in tribal concerns, and may be used for governmental or religious functions.⁶⁰ This is very different from the history of a modern adolescent peer group. The features that make it attractive to its members are liabilities for its persistence.⁶¹ The peer group has fluid boundaries, with individual members drifting into and out of association. Its numbers are ordinarily small and its functions vague and diffuse. It may provide recruits for radical movements, but it is just as likely to veer toward frivolity or criminality. Its dilemma

⁵⁸ Mannheim, *op. cit.*

⁵⁹ "Belonging to a generation is one of the lowest forms of solidarity." Harold Rosenberg, *The Tradition of the New*, New York: Horizon Press, 1959, pp. 241-258. In Rosenberg's opinion, generation identifications are concocted by journalists out of trivial or ephemeral data.

⁶⁰ Jack H. Driberg, "Age Grades," *Encyclopaedia Britannica* (1958), Vol. I, pp. 344-345.

⁶¹ Cf. David Matza, "Position and Behavior Patterns of Youth," in Faris, *op. cit.*, pp. 191-216.

⁵⁶ Albert J. Reiss, Jr., "Sex Offenses; The Marginal Status of the Adolescent," *Law and Contemporary Problems* (1960), pp. 309-333.

⁵⁷ Eisenstadt, *op. cit.*, and "Archetypal Patterns of Youth," in Erik H. Erikson (ed.), *Youth: Change and Challenge*, New York: Basic Books, 1963, pp. 24-42.

is that it is terminated by the arrival of adulthood. The peer group has little time to develop effective strength. It faces the common difficulties of any group composed mostly of transients. The members are dispersed by the growth of heterosexual interests, by the formation of families of procreation, and by movement into the labor force and out of the conveniently age-homogeneous arrangements of school.

The peer-group phenomenon provides insufficient support for a cohort approach to social change but it does exemplify the tendency toward cohort identification within the time structure of a changing population. The peer group is a symptom of the strain imposed on modern youth by its location at the fulcrum of change. The schedule of development includes a psychosocial moratorium between preparation and participation.⁶² This is when the youth first gets a chance to temper with reality the rigid precepts implanted in childhood. Lessons too sophisticated for children can now be learned. There are many answers for the questions of the age, from various and often contradictory sources. The imprecision of youth's role definition encourages receptivity to new ideas. Movement out of the equilibrated orientation provided by family and school and into a cognitively unstructured realm leaves them doubtful and uncertain but sometimes creative.⁶³ The new cohort of young adults lives in a phase of the life cycle when dramatic transitions are occurring in rapid succession. Perhaps the pace of personal change increases sensitivity to the possibilities of social change.

SOURCES OF INDIVIDUAL STABILITY IN ADULT LIFE

The cohort approach to social analysis derives strong support from the continuity of individual life, from a time-specific and

⁶² Erik H. Erikson, *Childhood and Society*, New York: W. W. Norton, 1950, and "Youth: Fidelity and Diversity," in Erik H. Erikson (ed.), *Youth: Change and Challenge*, New York: Basic Books, 1963, pp. 1-23.

⁶³ Kurt Lewin, "Field Theory and Experiment in Social Psychology: Concepts and Methods," *American Journal of Sociology*, 44 (1939), pp. 868-896.

thus historically located initiation. A person's past affects his present, and his present affects his future. Persistence is enhanced by the tendency to structure inputs, so that each will disturb as little as possible the previous cognitive, normative or even esthetic design, and, in the extreme, to reject dissonant items. Although individuals differ in the ingenuity with which they may retain disparate elements or achieve reformulation, the feasibility of extensive transformation is obviously quite limited. Individuals seek coherence, and manifest continuity to the extent that they achieve it. An individual's life is an organic entity, and the successive events that constitute it are not random but patterned.

The initial contribution to the design of a lifetime is made at conception, when the individual is provided not only with a fixed genetic constitution but also, under ordinary circumstances, with the two parents to whom society will assign responsibility for his early socialization. Furthermore, every society seizes upon the circumstances of birth as modes of allocating status, limiting the degrees of freedom for the person's path through life. Virtually every subsequent occurrence will depend on the societal plan for utilizing characteristics present at birth: sex, race, kinship, birthplace and so forth. Perhaps the most important influence of status ascription on the future of an individual in a modern society is its effect on access to different amounts and kinds of formal education.

Beyond the age of noncommitment, the new adult begins a process of involvement in the various spheres of life, in which his actions and those of others progressively reduce the degrees of freedom left to him in the societal scheme.⁶⁴ Facing various decisions among alternative roles open to him, an individual generally makes choices somewhat congruent with his value-orientations—unless he is to be credited with pure perversity. Within each role, once allocated, he forms a growing commitment to a line of activity. Each contract between group and

⁶⁴ The principal source of this discussion is Howard S. Becker, "Notes on the Concept of Commitment," *American Journal of Sociology*, 66 (1960), pp. 32-40.

individual contains a relatively determinate description of role requirements, and the contract is strengthened by stabilized interactions between the individual and occupants of interdependent roles. The temporal commitment is perhaps most relevant to the present argument. Thus a company's interest is served by bureaucratic arrangements, such as pensions and seniority rules, which penalize movement out of the system. On the job, the older employee becomes adjusted to his work, gravitating toward tasks that are congenial to him, and learning enough about them to exploit their advantages and minimize their liabilities. His psychological stake in his niche includes a modification of aspirations in consonance with his true abilities and the demands of the system for them. It should be clear that though this example is occupational, similar principles operate in every group of which a person becomes a member.

The apparent rigidity of an older worker in the face of a demand to adapt to a new procedure may flow simply from the circumstance that something valuable is being taken away from him.⁶⁵ The difficulties of learning new skills are more formidable for one who has acquired and utilized traditional work practices.⁶⁶ Career continuity is bolstered by investing time and money in a particular kind of vocational preparation. Continuous obsolescence of the individual is a feature of contemporary industrial society. It is to be expected that the old hands will resist innovation; otherwise they may be displaced before they are ready to retire. Resistance may be successful for a while, because the oldest workers are most likely to occupy positions of authority. The term "vested interests" suggests capitalistic profits threatened by change, but it applies equally to the skilled worker standing guard over his way of doing things. Perhaps this is especially true for higher levels of technical skill, where workers are less interchange-

able, and the individual and the industry commensurately less flexible.⁶⁷

Around his job, the individual establishes a network of spatial arrangements linking places where he lives, shops, plays and visits. An older man with a family feels obliged to remain in a situation from which a younger unencumbered person would readily move. The assumption of the parental role makes a person an agent of the society as a teacher of its new members, and the private attitude to which a man once felt himself entitled as a youth must now be subordinated to the more conventional public postures expected of the father.⁶⁸ "Nothing makes a younger generation settle down faster than a still younger generation showing up." Children are powerful instruments in making conformists of parents. They terminate definitively the brief period of "horizontal" freedom between the vertical structure of the family of orientation and the vertical structure of the family of procreation.

In a modern society, most adult roles are located in hierarchized structures. Factories, churches, labor unions and political parties distribute income, prestige and power along an approximately age-graded continuum. Memberships in such structures decrease the probability of individual transformation. In the majority of occupations a steadily upward progression of status occurs throughout most of the age span. Seniority can be viewed as commitment to particular modes of solving particular problems. The personnel of organizations tend to fall into Old Guard and Young Turk positions, emulating generations within a family. Young men must wait a long time for positions of power and responsibility, and may never arrive if they display ideas and attitudes deviating from those of their seniors.⁶⁹ Conformity to such vertical structures, and acceptance of the rewards and duties defined by superiors, implies resistance to change. To advance in a particular economic order requires support of that order. Success reinforces the way in

⁶⁵ Arnold S. Tannenbaum, "Adaptability of Older Workers to Technological Change," *Institute for Social Research Newsletter*, October, 1961.

⁶⁶ Margaret Mead, *Cultural Patterns and Technical Change*, Paris, UNESCO, 1953. This may also hold for the domestic technology of contraception. See Reuben Hill, J. Mayone Stycos, and Kurt W. Back, *The Family and Population Control*, Chapel Hill: University of North Carolina Press, 1959.

⁶⁷ Wilbert E. Moore, *Industrial Relations and the Social Order*, New York: Macmillan, 1946, p. 60.

⁶⁸ Sidney L. Pressey and Raymond G. Kuhlen, *Psychological Development Through the Life Span*, New York: Harper, 1957, pp. 494 *et seq.*

⁶⁹ Berger, *op. cit.*

which success has been achieved; failure is resisted from whatever position of accrued power has been attained. Social change creates continuing conflict between the rewards of seniority and the penalties of membership in older cohorts.

Students of political affiliation have been concerned with the ages at which people's experiences have most influence on their political behavior.⁷⁰ The hypothesis that youths acquire a structure of political attitudes from parents and peers, which persists unless disturbed by dissonant events, seems to be contradicted by the conservatism of older voters. Some of the tendency for older Americans to vote Republican may be explained by theories of aging, and by association with preferred statuses accompanying age, but a residual remains to be explained by intercohort differentiation.⁷¹ Perhaps the stereotype of the older person as a dogmatic conservative fits a person whose education dates back to a time when attitudes now regarded as conservative were more common. Yet persistence and continuity in the political as in the occupational sphere seem to grow with commitment to adult affairs, as exposure to alternatives is reduced, and penalties of change increase.⁷²

As life takes on a steadier tempo, routinization predominates. Routines are barriers to change because they limit confrontation with the unexpected and the disturbing. Older people learn to exercise greater control over a narrower environment, and avoid risks of venturing into unstructured situations. The feasibility of personal transformation is probably limited more by restricted membership than by physiological aging. A persistent research problem is the difficulty of distinguishing between characteristics which are indeed intrinsic to aging, and those which merely appear to be so because of the cohort contribution to the age vector in times of change. Social change ordinarily touches older persons less closely. They lead a more restricted social life, they read less,

they attend fewer movies, and their friends, books and movies are more carefully chosen to conform to their biases. Their residences and their friendships become more stable. The longer a person persists in an established mode of conduct, the less likely its comprehensive redefinition, especially if he invests it with normative content. Aging involves disengagement and withdrawal, a restriction on the quantity and intensity of interaction with others, and an approach toward self-centered and idiosyncratic behavior. Consistency through time is achieved by developing a vested interest in forms to which past behavior has again and again been oriented. To change the basic conceptions by which one has learned to assess the propriety of situations would be to make a caricature of one's life.

In later years, the cohort identity is blurred. Age becomes progressively less precise as an index of a person's social characteristics. Individuals experience what Cain calls asynchronization—they possess different "ages" in the various institutional spheres.⁷³ People vary physiologically, and also in the extent to which they continue to learn. Adjacent cohorts tend to permeate one another as the pattern of life chances works itself out. Definitions of age become predominantly social rather than biological categories; they change with time, and with the groups one joins and leaves. The intrinsic aging process may be variously accelerated or retarded by many different institutional arrangements.

The research recommendation implicit in the preceding discussion of the sources of continuity in individual lives is longitudinal analysis. The category includes case histories, repeated interviews with the same respondents (of which panel studies are a special case), analyses of diaries and dated letters, and, on a larger scale, continuous work histories or morbidity histories, for insurance purposes.⁷⁴ The *raison d'être* of the longitudinal approach is the organization of personal data in temporal sequence, to determine the causal potentiality of otherwise

⁷⁰ For summaries of the literature, see Lipset *et al.*, *op. cit.*, and Herbert Hyman, *Political Socialization*, Glencoe, Ill.: The Free Press, 1959.

⁷¹ Joseph Crittenden, "Aging and Party Affiliation," *Public Opinion Quarterly*, 26 (1962), pp. 648-657.

⁷² Hinshaw, *op. cit.*, p. 67.

⁷³ Cain, *op. cit.*

⁷⁴ For a summary of the technical problems, see Nathan Goldfarb, *An Introduction to Longitudinal Statistical Analysis*, Glencoe, Ill.: The Free Press, 1960.

isolated acts. This procedure has dominated behavioral inquiry, particularly under psychoanalytic influence, has become standard operating procedure in social psychology, and has been described as "the perfect type of sociological material."⁷⁵

The data produced by such inquiries are disjunctive with most statistical analyses of aggregates in two ways. First, the intensive detail of longitudinal analyses proliferates hypotheses but ordinarily lacks that broad evidential basis requisite to generalized verification which is a principal virtue of census tabulations, for instance. In this sense life histories and statistical analyses are complementary approaches.⁷⁶ But their potential complementarity is prejudiced by the second disjuncture—between the time axes of the two procedures. The life history has been called the long-section and the statistical the cross-section view of culture. The typical emphasis of the latter on simultaneity between corresponding events from different lives implies over-valuation of the existing situation—"the sociological error par excellence."⁷⁷ Aggregate analysis destroys individual sequences, and diverts attention from process. By implying that the past is irrelevant, cross-sectional analysis inhibits dynamic inquiry and fosters the illusion of immutable structure.⁷⁸

This outcome can be avoided by using the cohort approach. The cohort record, as macro-biography, is the aggregate analogue of the individual life history. It provides the necessary temporal isomorphism for linking small-scale intensive longitudinal analyses with extensive surveys of the society at a point of time. It has the time dimension of the former and the comforting statistical reliability of the latter. In a similar vein, Ortega has rejected both the collectivist and

the individualist interpretations of historical reality, in favor of an orientation based on the cohort—"the dynamic compromise between mass and individual—the most important conception in history."⁷⁹

SOURCES OF FLEXIBILITY: INDIVIDUAL AND GROUP

The predominant theme of literature on socialization and development is early crystallization. Perhaps this is because students of child development are most concerned with the personality, the control of primary drives, and the internalization of general value orientations, and not with the learning of specific norms and skills to be demanded of the adult. Clearly childhood socialization cannot prepare a person for all the roles of his later years. Indeed, parents effectively inhibit many types of learning by selectively sheltering their children from and exposing them to the world outside the home. Many types of economic, political and social participation are effectively limited to later life, e.g., the problem of support for older parents is not ordinarily encountered by the "child" until he approaches middle age. Socialization continues throughout the whole of life. Specific socialization occurs every time a person occupies a role in a new group, for every group has and is an agency for socialization and social control.⁸⁰ Although the codes of new groups the individual joins are often limited in content, they may tend to contradict the general precepts of earlier training. That there is considerable flexibility is evident from the experience of social and cultural mobility. For all the resistance of the culturally conditioned personality, individuals do move between cultures, sub-cultures and classes.

Socialization need not mean rigidification. Normative postures are often acquired imperfectly, incompletely and tentatively. Perhaps it is simpler to indoctrinate entrants with a set of immutable recipes for action in prescribed situations, but room is almost always left for interpretation. The situations

⁷⁵ Herbert Blumer, *Critiques of Research in the Social Sciences I: An Appraisal of Thomas and Znaniecki's "The Polish Peasant in Europe and America,"* New York: Social Science Research Council, Bulletin 44, 1939, pp. 129-130; William I. Thomas and Florian Znaniecki, *The Polish Peasant in Europe and America, Vol. III, Life Record of an Immigrant,* Boston: Gorham, 1919, p. 6.

⁷⁶ Edmund H. Volkart, *Social Behavior and Personality,* New York: Social Science Research Council, 1951, p. 24.

⁷⁷ John Dollard, *Criteria for the Life History,* New Haven: Yale University Press, 1935.

⁷⁸ Evan, *op. cit.*

⁷⁹ Jose Ortega y Gasset, *The Modern Theme,* New York: W. W. Norton, 1933, pp. 13-15.

⁸⁰ Orville G. Brim, Jr., "Socialization through the Life Cycle," *Social Science Research Council Items,* 18 (March, 1964), pp. 1-5.

to be encountered cannot all be anticipated, and the appropriate prescriptions for them may require improvisation. Experience can strain the sacred formula to the point of forcing reconstruction. The intellectual convenience of the assumption that development ceases once adulthood is attained must be sacrificed in the face of the annoying complexity of reality.⁸¹ Behavior can be modified by increasing rewards for innovation, expanding tolerance of some kinds of deviation, and softening penalties for movement. Indoctrination can be designed to encourage experimentation rather than unreflective obedience, and place primary emphasis on adherence to broad principles. Of particular importance are institutionalized procedures that provide legitimate modes of modification, such as debate in political negotiation and disciplined doubt in scientific inquiry. Such procedures impose a burden of doubt and strain on individual participants, but do leave room for social change through individual change.

Although the difficulty of teaching an old dog new tricks may be inherent, it is also possible that this is a myth given approximate reality by training programs based on it. The feasibility of adult change is probably contingent in large part on the character of early training, and on the opportunities provided for retraining. Perhaps older workers are less adaptable because the earlier cohorts of which they are members received a limited general education. Potential obsolescence may in the future be reduced by more general training, so that people will still be able to acquire in their later years the new capacities and skills needed for continuing employment. It is not outside the bounds of speculation to look toward the day when accelerating change will make economic an extension of education throughout the entire life span, as a continual adjunct to the work week, or as a routine sabatival renovation.

Yet the flexibility of the social system and its components need not rely on the imperfect tentativeness of socialization procedures, nor on the prospects of retraining the individual. Every group has some control over its own demographic metabolism,

and over the content of socialization. The society achieves pattern and direction partly through general selection mechanisms. Change can be mediated through modifications of role allocation as well as through flexible socialization. The system of role allocation can be manipulated to achieve stability and continuity for the group and for the individual, and permit the continuing transformation required by a dynamic society.

Like individuals, organizations (including the total society) have characteristics that influence their degrees of freedom with respect to change. In particular, the different system levels vary in the feasibility of transformation by substituting rather than by modifying components. In biology, the capacity for change is greater at the organismic than at the cellular level. The life of a cell is short relative to that of its encompassing organism. In turn, the organism must die but the species persists and changes, through reproduction and selection. Each higher level has greater modifiability through time, based on the feasibility of metabolism of lower-level components. The analogy of society and organism was always somewhat unfortunate, for reasons unnecessary to rehearse, and also because it may have obscured the more fruitful analogy between society and species. The society is a looser and less sharply defined system than the organism because its constituents possess the possibility of independent mobility in space. In turn, the society is a more flexible system than the species, because it has greater possibility of independent mobility in time. It can control not only the physical replacement of members, like the species, but also the replacement of norms through cultural transmission. In a sense, the society has two types of membership: biological, consisting of human organisms, and cultural, consisting of social norms. The replacement of each is of course interdependent with the replacement of the other.

Now the processes of normative replacement and personnel replacement occur at all levels of social organization. The study of the demographic metabolism of specific groups is a relatively uncharted area of great importance to the student of social change. The individual differs from the or-

⁸¹ Anselm L. Strauss, *Mirrors and Masks*, Glencoe, Illinois: The Free Press, 1959.

ganization because he is attached to a mortal body, and lacks the capacity for freedom with respect to time which is within the grasp of the organization. Organizations, like individuals, may acquire structural rigidities, but they can modify their course by replacing individuals as well as by transforming them, through their hiring and firing policies. The scope of possibilities for transforming the character and direction of an organization obviously includes succession in crucial leadership roles and the changing criteria for advancement as different talents become more or less valued.⁸²

Indeed, in some respects the subsystems of a society may be even more flexible in this regard than the society itself. They have more scope for applying conditions for remaining and more ways of recruiting new individuals. Enfranchisement and disfranchisement are much more discriminating in their selectivity than natural processes.⁸³ A society does have some control over the character of its membership, to the extent that differential fertility and mortality are subject to social arrangement, and to the extent that the population is changed by migration, but it is at least common for a society to accept a contractual obligation to all those born within its boundaries (an obligation it has in a sense inherited from its predecessor, the family). But it is perhaps most meaningful from the standpoint of the transmutability of the total society to consider the extent to which its components are groups and organizations rather than individuals. Organizations persist if and because they are successful. New organizations are continually born and old ones die. The replacement of individuals within an organization is paralleled by the replacement of organizations within a society. Once again the opportunities for research are abundant.

CONCLUSION

The case for the cohort as a temporal unit in the analysis of social change rests on a

⁸² Joseph R. Gusfield, "The Problem of Generations in an Organizational Structure," *Social Forces*, 35 (May) 1957, pp. 323-330.

⁸³ Georg Simmel, "The Persistence of Social Groups," in Edgar F. Borgatta and Henry J. Meyer (eds.), *Sociological Theory*, New York: A. A. Knopf, 1956, pp. 334-358.

set of primitive notions: persons of age a in time t are those who were age $a-1$ in time $t-1$; transformations of the social world modify people of different ages in different ways; the effects of these transformations are persistent. In this way a cohort meaning is implanted in the age-time specification. Two broad orientations for theory and research flow from this position: first, the study of intra-cohort temporal development throughout the life cycle; second, the study of comparative cohort careers, i.e., inter-cohort temporal differentiation in the various parameters that may be used to characterize these aggregate histories.

The purpose of this essay is to direct the attention of sociologists toward the study of time series of parameters for successive cohorts of various types, in contradistinction to conventional period-by-period analyses. There has been a considerable growth of cohort research in recent years, but the predominant emphasis is still on comparative cross-sectional inquiry. Admittedly the new approach shares the vices as well as the virtues of all studies with an extended time dimension. It is cumbersome, inefficient and laborious; data collection is very time-consuming; and the implicit incomparability accumulates as the group changes its composition (and as the data collectors change their definitions).⁸⁴ Yet such difficulties are not so much those of the method itself as meaningful reflections of the research investment necessary to study a long-lived species experiencing structural transformation.

Measurement techniques should be designed to provide data that correspond with the theoretical formulations of the phenomena under examination. In the present essay, the purpose has been to present a frame of reference within which theories can be constructed and empirical inquiry prosecuted. Considering the modest results so far achieved in dynamic analysis, sociologists would be well-advised to exploit the congruence of social change and cohort differentiation.

⁸⁴ William Kessen, "Research Design in the Study of Developmental Problems," in Paul H. Mussen (ed.), *Handbook of Research Methods in Child Development*, New York: John Wiley, 1960, pp. 36-70.