

# PART 1

## INTRODUCTION

- 1 Elements in a model of age stratification
- 2 Interpretation of research on age, with mathematical note
- 3 Notes on the concept of a population

*Part 1 is intended to aid the reader at various points as he develops and organizes his own understanding of age stratification. It provides an analytical framework for dealing with this emerging field at several levels: with age as an individual attribute, with collectivities bounded by age-related criteria, and with the age structure of a society composed of multiple, coexisting cohorts (or generations). Above all, this framework stresses the dynamic potential of examining the relations between the rhythm of men's birth, aging, and death, and the less predictable timing of social stability and change.*

*Chapter 1 is a synopsis of the book. It outlines a working model of conceptual elements and propositions, designed for heuristic purposes. Its style is highly compact and schematic, utilizing outlines and diagrams. The reader may choose to scan Chapter 1 first, or last, or preferably at both points with different objectives.*

Whereas Chapter 1 stresses the conceptual aspects of age stratification, Chapter 2 deals with the logical and methodological aspects. Age stratification is formally similar to class stratification in certain respects, requiring comparisons within and between strata, examination of the overall structure of society, and tracing of mobility across strata. In other respects, however, age stratification requires a unique approach, one that takes into account its linkage with biology and demography, on the one hand, and its inherence to social change, on the other hand. Both aging (or mobility through the age strata) and the flow of cohorts are inevitable processes, and both are tied to history by the crucial fact that the life span of a society is far longer than the life span of its members. Thus there are difficulties of avoiding fallacious interpretations, constituting a challenge to develop and utilize appropriate methodological approaches. A mathematical formulation of some intrinsic difficulties was prepared for this chapter by Richard Cohn.

The possibilities for a demographic approach are eloquently set forth in Chapter 3 by Norman B. Ryder. This essay, one of several written by Ryder on cohorts (and the only chapter not prepared especially for this book), defines the concept of a cohort and amplifies the nature of its utility for sociologists wishing to understand the demographic view and to go beyond it toward a sociological view of the actors who flow continuously through the roles in the social structure.

An Appendix to Chapters 2 and 3 outlines special difficulties confronted by the student of age stratification who, with vast stores of data now available and computer techniques for processing them, must nevertheless solve numerous problems of sampling, data collection, and analysis of age-specific elements and processes.

# 1

## *Elements in a model of age stratification*

### Introduction

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**A**ge is an essential, though little understood, ingredient of the social system. Every society is divided into strata according to the age of its members. On the one hand, people at varying ages (or stages of development) differ in their capacity to perform key social roles. On the other hand, the age strata differ in the roles members are expected to play and in the rights and privileges accorded to them by society. Thus the social system, which depends upon the continuing performance of numerous age-specific functions, must accommodate the endless succession of cohorts (generations) that are born, grow old, and die within it.

Not only is age fundamental to the social system (see, e.g., Parsons, 1942; Linton, 1942; Eisenstadt, 1956). Age also serves as an important link, on the one hand, between the individual and his biological life cycle and, on the other hand, between the society and its history. Thus one peculiarity of the age structure of society is its *physiological* base, its dependence upon the organic maturation and inevitable decay of the constituent members. The mobility or succession of individuals through the age strata, unlike social mobility through the class structure, is not primarily contingent upon motivation or recruitment: to a certain extent it is biologically determined. Moreover, this mobility is irreversible; no matter how hard people try, they cannot grow younger. The particular individuals constituting any given age category are continuously moving on and being replaced.

In addition, the age strata within the society rest upon an *historical* base. Each new cohort, starting its life course at a unique point in time, has unique characteristics because of the particular historical events undergone or the particular knowledge and attitudes acquired in childhood (cf. Mannheim [1928], 1952; Cain, 1964; Ryder, 1965). The society with which each new cohort of individuals interacts is not the same, nor is the nature of the individuals constant. Hence the sequence of cohorts, marked by the imprint of history and each in turn leaving its own imprint, is inextricably involved in societal processes of stability and change.

The purpose of this book is to explore society from the perspective of its age strata, much as other approaches have examined ethnic structure, for example, or the division into classes along lines of money, power, or prestige. This introductory chapter—of necessity highly abstract—outlines a conceptual model of age stratification, and points to certain implications of age for an understanding of the society and its members. (The reader may wish to treat this chapter as a synopsis at the beginning and as a summary at the end of his perusal of the book.)

Many of the definitions and assumptions upon which the conceptual model rests are arbitrary, since there are numerous ways of simplifying the complex phenomena at hand. Thus the model is heuristic, designed to stimulate inves-

igation and debate and to invite revision. With no intention of espousing any narrow or parochial position, then, we have made use of many basic ideas about the social system borrowed from a single theoretical tradition, that of Parsons and his associates, as this tradition organizes the relevant thinking of such earlier scholars as Durkheim, Mead, or Freud and as it relates to much present-day thinking. Certain of the traditional concepts are modified, however, for the sake of parsimony in relating age to society. Additional concepts have been adapted from methodological work in such fields as demography, epidemiology, and developmental psychology, because of the vagueness or the impoverishment of the pertinent sociological language. For example, the word "generation," which has several meanings, will ordinarily be used here in its kinship reference to the parent-child relationship, while the word "cohort" will be regularly applied to persons born (or entering the system) at the same time. (Special usage of terms is indicated by pages listed in bold face type in the subject index.)

These definitions and assumptions, to be used as a working model, will be utilized and illustrated where relevant in the essays in Part 2 of the book; and they will be discussed, expanded, and formulated in Part 3 as principles, hypotheses, or questions for further analysis.

### 1 *Age-specific elements in the model*

**Age**, in the sociological view, affects both the *roles* in the social system and the *people* who act in these roles. Thus the conceptual scheme to be outlined in Section 1 of this chapter will assume the existence of a role system<sup>1</sup> and of a population of actors, and will concentrate on age-specific structural elements and processes in these two complementary aspects of the social system. This section will deal first with *structural* (or synchronic) elements, then with the *processes* inherent in this age structure, and finally, with the kinds of *changes* that can occur in the age structure over time. These structural elements are convenient categories for describing in cross section the same processes that can also be viewed diachronically over time. However, the

<sup>1</sup> In this book, a role is heuristically defined as a part to be played by individuals, which typically carries with it certain normative expectations (rights and obligations), sanctions (rewards or punishments for performance), and facilities and resources necessary for performance (including other people or groups acting as socializers, allocators, or role-partners of various kinds). Since the role as a position and its characteristics as defined can either change or remain relatively unchanged regardless of the succession of the particular role-occupants, the role is considered to be a constituent of the group structure or the social system. While we recognize the limitations of our usage (in examining many not-yet-crystallized or fully institutionalized roles, for example, or in emphasizing the importance of situational factors in performance), we have found it convenient for our immediate purposes to avoid many of the more refined terminological distinctions (such as the distinction between role and status) that other theorists have required in their work.

structural or synchronic focus has a special significance for the sociology of age stratification, since it locates processes affecting individuals within the framework of stability or change in the larger society.

The relationships between these age-specific elements in the social system and the associated factors in the social, physical, and biological environment will be reserved for Section 2 of this chapter; and certain implications of the model will be suggested in Section 3.

### 1 · A STRUCTURAL ELEMENTS

See Chapter 10

Viewed in cross section at given periods of time, both *people* (the population structure) and *roles* (the role structure) are differentiated by age, and both make age-differentiated contributions to the social system. Thus two pairs of structural elements can be identified, as diagrammed in Figure 1 · 1.

**1 · A · 1 Age strata in the population** People (conceived here in sociological terms as actors in the social system) form strata composed of persons of similar age; and the total population is made up of a series of such age strata.

Within a population, the several age strata can vary in *size* and *composition*. For example, there may be more people in the younger than in the older strata; or the ratio of females to males may increase steadily from younger to older strata.

More specific aspects of our model of the age strata in the population include the following:

An aggregate of individuals (or of groups) who are of similar age at a particular time is called an *age stratum* (or an age category).

The *divisions* between strata may be variously specified, either precisely or approximately, and in terms either of the chronological age of the members (as in census age categories) or of their stage of biological, psychological, or social development.

The strata within a population form an *ordered series*, along a dimension from younger to older.

The *focus* of attention can be either on the stratum, the population as composed of age strata, or the individual as a member of either or both.

**1 · A · 2 Age-related acts** Not only do the age strata differ from one another at any given period of time in size and composition, but they differ also in the *contributions* they can make to the activities and processes of society (see Riley, Foner, Hess, and Toby, 1969, pp. 954–959). That is, both actual performances and orientations, and the capacity and motivation to perform, are affected by age (in complex ways to be outlined later). For example, older people may be less responsive than younger people to technical retraining for various reasons, perhaps because they have forgotten the strategy for learning or because they start with a generally poorer educational background.

**1 · A · 3 Age structure of roles** Just as age divides the population into age strata (or age categories), age is also built into the social structure as a *criterion* for entering or relinquishing certain roles. Age can operate *directly* as a criterion; for example, in the United States a man cannot vote until a certain age or become President until age 35; or he may be required to retire at age 65. Age can also operate *indirectly* as a role criterion through association with other factors; for example, biological stage limits motherhood, or being old enough to have completed high school tends to limit entry into college; or the rapid reaction time required for certain occupations can exclude the aged.

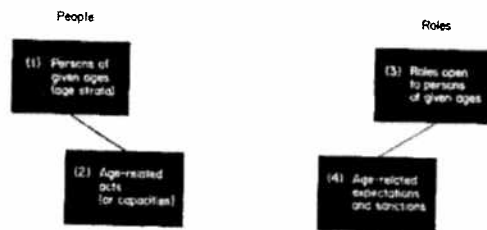
The roles open to persons in the several age strata vary in *type* (so that particular complexes or constellations of role types are simultaneously accessible), and they vary in the *numbers* of each type available (e.g., in the number of jobs open to workers under age 20 or over age 60).

More specific aspects of our model of the age structure of roles include the following:

As an aspect of the social structure, most age criteria are *normative*, permitting or requiring people of given ages to perform particular activities (as in the prescribed ages for school attendance or the minimum ages for entering the work force). Normative age criteria reflect the values and perceived exigencies of a particular society. Other criteria, though they are often translated into normative standards, constitute *factual* regularities in the age strata, such as average or modal ages of entering or leaving roles (e.g., the age of first marriage).

Age as a criterion for role assignment may be variously *specified* in terms of chronological age, either precisely (as in the age of becoming a voter) or approximately (as in age of entry into college); or age limits may be indirectly specified, for example, in terms of stage of biological development (as in becoming a parent). The age criterion may set a lower limit (to the role

FIGURE 1 · 1 Elements in the age structure of a society



of voter or of "drinker") or an upper limit (to the role of draftee or of worker where there is mandatory retirement), or an age range may be applied.

Age is a criterion that links together *complexes of roles* that are otherwise differentiated. For example, adolescence places individuals simultaneously in the roles of high school student, peer group member, and dependent offspring in a family.

Complexes of age-linked roles form an *ordered series* within the society. However, the ordering of roles by age—though it often results in inequalities—does not necessarily constitute a social hierarchy in the sense that socio-economic strata, for example, may be ranked in terms of control over social sanctions. [See Section 3D of this chapter.]

The *focus* of attention can be either on the total system of age-related roles, on the complex of roles appropriate to a given age (stratum), or on particular roles as parts either of the total system or of the complex.

**1 · A · 4 Age-related expectations and sanctions** Age enters into role definition as well as into role assignment. Thus age affects not only *what* roles are open to the several strata, but also the societal *contributions*—the performance expectations, opportunities, and rewards—afforded to incumbents of particular roles (see Riley, Foner, Hess, and Toby, 1969, pp. 959–970). For example, role expectations as to appropriate behavior and sanctions (whether rewards or punishments) may differ for the infant son and the son in his teens, or for the young worker and the worker nearing the end of his career, or for age-heterogeneous and age-homogeneous friendship.

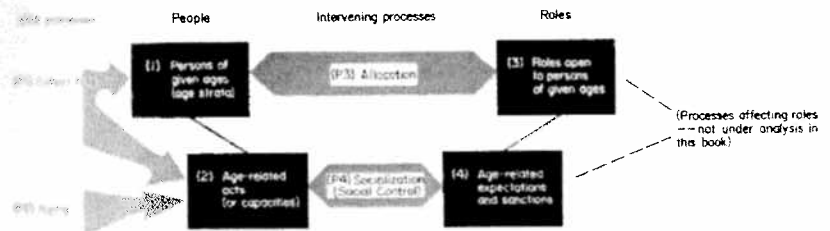
#### 1 · B PROCESSES

See Chapters 11 and 12

These four elements in the age structure of the society at any given period are the product of separate but intertwined processes operating within the population and the role system, respectively. Apart from broad changes in the role system itself, two sets of age-related processes are continuously at work, corresponding to the two pairs of structural elements in our model (see Figure 1 · 2). First, in regard to people (the members of the society), the vital processes of (P1) cohort flow yield the age strata, while the processes of (P2) aging over the life course (including biological, psychological, and social aging) produce mobility across these strata and thus affect performance at each age. Second, linking people with roles, the dual process of (P3) allocation and (P4) socialization enable the role structure to persist and the performance of age-specific functions to continue, despite the succession of role-incumbents.

**1 · B · 1 Cohort flow** The essential process underlying the changing size and composition of the age strata (element 1 in Figure 1 · 2) consists

FIGURE 1 · 2 Processes related to structural elements



of the formation of successive cohorts, their modification through migration, and the gradual reduction and eventual dissolution of each cohort through the death of individual members.

A cohort is defined here as an aggregate of individuals who were born (or who entered a particular system) in the same time interval and who age together.

Each cohort starts out with a given *size*, which (except for additions from immigration) is the maximum size it can ever attain.

Over its life course, a portion of its members survive, while others move away or die out until the entire cohort is destroyed.

Each cohort starts out with a given *composition*; that is, it consists of members born with certain characteristics and dispositions.

Certain of these characteristics are relatively stable in that they are unlikely to change over the life course of the individual (such as sex, color, genetic make-up, country of birth, or—at entry into adulthood—level of educational attainment). [See Section 2 · B · 1 in Chapter 2.]

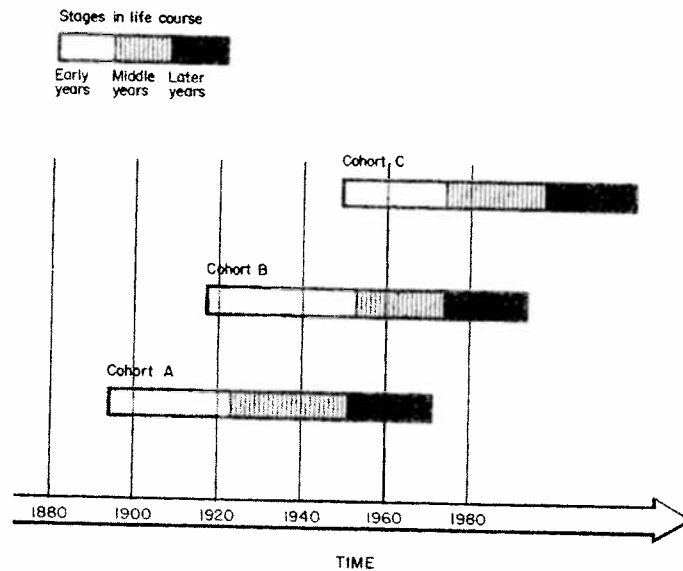
Even in respect to such stable characteristics, however, the composition of the cohort changes over its life course, since certain segments tend to survive longer than others (e.g., women longer than men, whites longer than Negroes).

The succession of cohorts (barring the complete disruption of the society) is an inevitable and irreversible process. Successive cohorts can differ from one another in initial size and composition and in age-specific patterns of survival (or longevity). Moreover, since their respective life spans cover different periods of history, each cohort encounters a unique sequence of social and environmental events.

In Figure 1 · 3, which represents schematically the life spans of three selected cohorts, the age strata at a given time (such as 1960) can be conceptualized in terms of a cross-sectional view of the several cohorts. Thus the cohort is the dynamic counterpart of the age stratum as a structural element.

**1 · B · 2 Aging** The individual members of every cohort (irrespective of

FIGURE 1 · 3 Processes of cohort formation and aging showing selected cohorts over time



date of birth) proceed over their life course from birth to death, undergoing changes in performance and attitudes (element 2 in Figure 1 · 2).

*Aging* involves the accumulation of experience through participation in a succession of social roles, and through psychological change and development (as well as through various organically based changes noted in Section 2 below).

Aging constitutes *mobility* from one age stratum to the next—an inevitable and irreversible process.

Over the life course, individuals enter certain roles but relinquish others, acquire certain capacities and motivations but lose others.

Note that, unlike much popular usage, we do not confine the term to later stages of the life course.

Despite the inevitability of chronological aging, however, the character of the aging process is far from uniform. Even biologists have difficulty in establishing an aging process that is inherent in the organism apart from its environment (see, e.g., Strehler, 1962). The nature of aging among human beings as members of society is markedly affected by many factors—psychological and social, as well as biological: by the individual's characteristics

and dispositions, by the modifications of these characteristics through socialization, by the particular role sequences in which he participates, and by the particular social situations and environmental events he encounters. Hence it follows that patterns of aging can differ, not only from one society to another and from one century to another (see Section 2 of this Chapter), but also among successive cohorts in a single society. For any given cohort, the pattern of aging will reflect the unique historical background of the cohort, and the special patterns of its compositional segments (by sex, color, or socioeconomic status, for example).

Thus the two processes of aging (*P2*) and cohort succession and survival (*P1*) are linked together, and both processes have important implications for the age structure of the society. Not all of the differences among strata in position and orientation (element 2) can be accounted for by aging alone. As can be seen from Figure 1 · 3, the age strata at any given period differ not only in age but also in the cohorts to which they belong. A central problem (and a source of many fallacies) in interpreting empirical findings on age is to disentangle patterns of aging from patterns of cohort succession; and also to discover how these two sets of processual patterns are connected with structured shifts in the age strata, and with social and environmental change [as discussed in Chapter 2 and also in Volume I, Chapter 1].

*1 · B · 3 Allocation* The facts of aging, death, and the infusion of new cohorts into the population mean a continuing flow of manpower into age-specific roles and the training of new recruits to meet expectations (see Figure 1 · 2). Of the two processes involved, one is allocation—a set of mechanisms for the continual assignment and reassignment of individuals of given ages to the appropriate roles. Allocative processes can operate, either on the basis of ascription or of achievement, through various agencies and devices that range from personnel managers or pension plans in a firm to the control of contraception or of bereavement.

*1 · B · 4 Socialization* The second articulating process, socialization, serves to teach individuals at each stage of the life course how to perform new roles, how to adjust to changing roles, and how to relinquish old ones. Like allocation, it appears with fresh lucidity from the viewpoint of a sociology of age.

The processes of allocation and socialization combine, then, to bring into conjunction the four sets of elements within the age structure.

*1 · B · 5 Role changes* In sum, both persistence and change in the population and in the role structure depend upon the operation of the two sets of age-related processes just described. Whereas the population processes (*P1* and *P2*) bear directly upon people, allocation and socialization (*P3* and *P4*) are intervening processes operating to connect people with roles. In

addition, a postulated third set of processes is also at work to affect the role system directly. Such role processes often produce shifts in the number of roles open to given age groups and in the age criteria of roles (element 3), and they produce shifts in the age-related expectations and sanctions (element 4). However, the range of these processes affecting the system of roles far exceeds our immediate focus on age. Unlike the processes of cohort flow and aging, which invariably impinge upon age<sup>2</sup> as a characteristic of the population, age is by no means always a salient property of the role system processes (which involve many criteria other than age, or bear upon the entire system without regard to age). Hence the role structure at any particular period of time will be taken as "given," while shifts in the age criteria for role assignment or for role definition will be brought to attention in Section 1 · C and treated, not as continuous processes, but as structural *changes*.

**1 · B · 6 Differences in timing** Of central importance to our analysis, however, are the differences in rhythm and timing in these three sets of processes. These differences arise from the crucial fact that the life span of a society or of its population is far longer than the life span of its members. Not only do aging and cohort succession differ in their timing; but, still more important, there is a fundamental asymmetry or lack of synchronization between the sets of processes affecting people and those affecting roles. The wide range of factors influencing the role structure, though less clearly understood<sup>3</sup> than the population processes, are patently less regular or definable in periodicity. Thus a constant tension—a potential source of immanent change—inheres in the articulating processes whereby the rhythmic flow of people is channeled through an unpredictable structure of roles. Recognition of this tension casts a new light upon socialization and allocation [*discussed in Chapter 12*], and points to certain strains and imbalances between population and role structure that are beyond the reach of these articulating processes [*Chapter 10 · 4*].

#### 1 · C STRUCTURAL CHANGE

See Chapter 10 and Chapter 12.4

Apart from the continuous processes set in motion by cohort flow and aging, processes that persist even when the population structure and the role structure approach stability, age-specific changes in these structures can also

<sup>2</sup> In a subgroup or subpopulation where members enter at differing ages, these processes have a different meaning—dependent not on specific chronological age but on aging (duration) within the subsystem.

<sup>3</sup> Among the numerous treatments of the phasing of social change, Sorokin, 1941, pp. 505 ff., cites and evaluates many "cyclical" explanations; Nisbet, 1969, analyzes the many analogies drawn between the life course of a role system and particular organic models; and Smelser, 1968, pp. 266 ff., has proposed a phasing of social change that might serve as a common theoretical framework for further studies.

occur.<sup>1</sup> Such alterations, viewed as changes in the state of the social system from one period of time to another, can arise in *any one* of the four elements shown in Figure 1 · 2. Moreover, a change in one element of the age structure can generate pressures for changes in *other elements* as well. A few examples will illustrate these principles:

An increase in the numbers of school-age children (element 1), as in the recent United States experience, can increase the number of places required for them (3) in the schools.

An increase in the numbers of senescent persons (1) can increase the number of geriatric caretakers required (3).

An increase in the performance capacity of an age category (2), as through improved levels of health or through retraining of older workers, can allow more roles for an age stratum by mitigating the age restrictions on hiring (3).

Modified expectations for performance by older workers (4), as in wartime, can also serve to relax age restrictions in hiring (3).

Higher rewards (4) for an age stratum, as for school children, can increase motivation and raise performance levels (2) for that stratum.

Such changes in the structural elements arise out of changes in the corresponding processes. The four age-related processes, as diagrammed in Figure 1 · 2, can be viewed as an intricate feedback system in which each process interacts with the others, with changes in the role structure, and with the environment (to be outlined in Sections 2 · A and 2 · B). Although these complex interrelationships will be discussed further in Chapter 12, a few moments of reflection will suggest how, for example:

Changes in allocation (P3) or in socialization (P4) each affect the processes (social or psychological as well as biological) by which people age (P2). And, in turn, changes in aging influence the nature of socialization and of allocation.

Meanwhile, allocation (P3) and socialization (P4) clearly influence each other.

Changes in cohort flow (P1) by affecting who lives and for how long, can alter the life-course patterns by which individuals age (P2). Thus, if longevity increases, more people confront problems of old age; or, if males are killed in a war, marriage patterns change.

Changes in cohort flow (P1), by affecting the numbers and capacities of individuals in the several strata, can modify the processes of allocation (P3) and of socialization (P4).

The cohort flow (P1) can, in turn, be influenced by various changes in each of the other processes. Thus changes in allocation (P3) of the young, or of the

<sup>1</sup> While the process and change are useful largely as ideal types, with the boundary between them often indistinguishable (cf. Parsons and Shils, 1951, p. 233, e.g.) in this book we emphasize the distinction between the age-specific processes in our model and the changes affecting the state of the society.



old, to work roles can alter the incentive to produce children (see e.g., Bogue, 1969, pp. 839–841). Or longevity can be affected by changes in socialization for health care, or by reductions in the will to live imposed by senescence (P2).

These interdependent changes in the age-specific processes operate only rarely to maintain the age structure by equilibrating imbalances among the several elements (Parsons, 1961, p. 37). And, once disequilibria have developed, they can persist. For example, the numbers of the superannuated (or of the recently trained) who aspire to occupational roles may consistently exceed the numbers of roles available to them; or the irreversibility of age mobility can limit the possibilities of redressing imbalances in the age structure through socialization or allocation. And persistent imbalances can result in various forms of strain, conflict, and deviance and can press for the establishment of new or altered structures.

#### 1 · D ELABORATIONS OF THE MODEL

As this model of age stratification develops in the ensuing chapters, many elaborations and variations will be required for understanding the selected elements briefly outlined here.

For example, at the outset the population is viewed, in the simplest terms, as consisting of *individuals*. Age is, indeed, a property of the individual; and through aggregation of individuals it becomes a *collective* property of strata or cohorts (e.g., Riley, 1963, pp. 23–24). For many purposes, however, sociologists want to deal with age as a property of more complex units. For example:

Strata (or cohorts) can be composed of age-homogeneous *groups* (rather than individuals). Here age of the group can be measured: as an average for all group members; by the age of a single member, such as the wife in the husband-wife pair; or by the duration (of a marriage or of a university) from the time of formation of the group.

In networks of individuals, age can be regarded as a *relational*, rather than an absolute, characteristic. Thus particular analyses can focus on the relative age of an individual's role-partners, such as his spouse, his friends, or "peers," or his parents or offspring (where the age gap between strata is a "generation" in the kinship sense of the word).

A different type of elaboration can focus, not on the entire population of a society, but upon the population of a smaller group (such as inmates of a hospital) or upon selected population *segments* (or quasi-populations) such as the population of scientists, members of the labor force, voters, or inmates of a hospital. Here the cohort is defined as an aggregate of individuals who share, not a common date of birth, but a common date of entry into the particular segment. Quite different definitions must then be given to the processes of cohort succession and survival, especially if individuals are of dif-

ferent ages at time of entry (for example, at time of entry into the population of a long-stay mental hospital).

#### 1 · E SUMMARY OF AGE-SPECIFIC ELEMENTS

Section 1 has defined age stratification, then, in terms of those selected aspects of a social system in which age appears to be importantly implicated. Structurally, age has been emphasized as a factor for:

Dividing the *population* into strata, with differentiated contributions.

Defining criteria for occupying *roles*; and defining the expectations, facilities, and sanctions associated with particular roles.

Correspondingly, two sets of processes that underlie this age structure are described as:

Those impinging upon the *population* to produce age strata and mobility across strata.

Those effecting the allocation and the socialization to *roles* of people at the various ages.

Moreover, both the structural and the processual elements in age stratification can change over time in diverse ways.

## 2 Age stratification and the environment

Our model of the age-specific elements in society does not, of course, form a closed system. The elements, while interdependent (as described in Section 1 · C), are also open to the influences of the environment. Two broad types of environmental factors are at work: first, factors that operate, irrespective of age, *within* the boundaries of the society or social system; and second, factors that impinge upon the age structure from *outside* the social system boundaries (cf. Parsons, 1961, pp. 70–72).

Thus, in the first place, the age-specific elements do not form a complete system in themselves, but are part and parcel of the social system as a whole. The model refers to just one aspect of society: age. It is a device for viewing society along the dimensions of age stratification, cohort flow, and aging (defined as mobility across the age strata from infancy to old age), somewhat parallel to the more familiar model for viewing society along the dimensions of class stratification and social mobility (both intergenerational and intragenerational). Hence, the age-specific elements are subject to many variations, processes, and changes that are *inherent* in the social system, though not themselves specifically tied to age, such as variations in the norms, or in the degree of urbanization or of industrialization.

In the second place, the age structure is subject to numerous *exogenous*

events and conditions that intrude from outside the boundaries of any particular social system. These boundaries separate the social system not only from its physical, cultural, or social environment, but also from the purely organic system of its individual members; and entirely different sets of exogenous factors operate respectively at the two levels of society and individual. On the one hand, those environmental factors affecting the *society* can occur in the physical environment (for example, climate, or productivity of the soil); in the cultural climate (for example, values or technology); or in the social environment (for example, the relations of the society to neighboring societies).

On the other hand, that set of exogenous factors affecting *individuals* as members of the society can operate through the biological systems of which these individuals are constituted. In our model, each individual in the age strata is regarded as an actor within the social system, one who is socially conditioned and socially oriented. In addition, of course, he is a biological organism, born with certain innate capacities, and characterized by biological and physiological changes with age. As an organism, he is subject to genetic changes, for example, or to changes in health as a consequence of medical practice. This biological component, though outside the *social* boundaries of the society or system is importantly implicated in the individual's longevity, in his capacity to perform age-specific social roles, and in his social development over the life course.

While the dividing lines are far from clear, then, the model of age stratification focuses only on those elements that are both age-related and social. All other elements, including the biological, are treated for purposes of this discussion as external to the model, hence as "environmental" in this sense.

A major objective of this book is to trace some of the connections between changes (or variations) in age stratification and the related changes (or variations) in the enviroing factors, both those inside and outside the social system. These changes are two-directional, so that we can examine particular environmental factors as operating sometimes as "cause," sometimes as "effect," of particular elements in the age structure. Moreover, although we shall not attempt to explore the full interdependence among the many elements in the age structure and its environment, each change presumably has repercussions throughout the system and is in turn influenced by them.

#### 2 · A ENVIRONMENTAL CHANGES AS CAUSAL FACTORS

Social changes, and changes in the environment more generally, often operate to *produce* changes in the age structure of the society. Such external changes can impinge directly upon any one of the four structural elements (or the underlying processes) shown in Figure 1 · 2, typically initiating a subse-

quent chain of reactions within the age structure itself, as suggested in Section 1 · C.

2 · A · 1 *Factors affecting the age structure of roles* The following are examples of these factors:

Annual or seasonal variations in crop yields in an agricultural society, as these might affect demands for the field labor of very young or very old people otherwise exempted (element 3).

A war that, by reducing the ratio of young adult males to females (1), produces changes in age-specific sex norms (4), such as those surrounding the appropriate age of marriage.

The general tendency toward increasing role differentiation in the United States, as it affects the numbers or types of age-specific roles available (3).

A general increase in freedom of individual expression, as this can press for redefinition of age-appropriate expectations, facilities, or sanctions (4), such as those defining the role of student.

2 · A · 2 *Factors affecting the age structure of the population*<sup>5</sup> The following are examples of these factors:

An epidemic among infants (P1) affects the sizes of the age strata (element 1); or a war affects these sizes by influencing nuptiality and fertility.

Changes in science or technology (in medicine, air pollution, or atomic radiation), in public health practices, or in standard of living, can influence the aging process (P2) with consequent effects on age-related performances (element 2).

Changes in the norms of family life can modify role behavior (element 2) as well as socialization (P4) at various stages of marriage and childrearing.

The imprint of social change upon successive cohorts (P1) can affect the gap between age strata in performance levels (element 2). For example, the gap between young and old in educational attainment results from the general upgrading of the population.

#### 2 · B ENVIRONMENTAL CHANGES AS CONSEQUENCE

Broad societal and environmental changes, as well as specific changes in biological and physiological functioning, can occur not only as the causes, but also as the *consequences* of changes in the age-stratification of society. A few examples will suggest the principles of such relationships:

A change in the absolute sizes of certain age strata (element 1) can influence the overall structure of societal roles. For example, the increasing joint survival

again, as in Section 1 · B, the processes producing such changes in the age structure of the population are specified, whereas those affecting the age structure of roles are simply taken as given.

of husband and wife into the middle years may strengthen the autonomy of the nuclear family at all ages.

A change in the *relative* sizes (element 1) of the age strata (i.e., a change in the age distribution of the total population), by changing the societal distribution of such age-related characteristics as health, can influence the *overall* performance capacity of the society and change its dependency burden (cf. Hawley, 1959, pp. 378–380).

A further institutionalization of expectations and rewards (4) in the leisure-time roles available to older people could affect leisure facilities and roles available in the total society, and could result in changing the values for all age strata.

Enhancement of age-related role opportunities (3), as these opportunities may increase motivation and involvement, can have possible biological consequences for health and physical functioning. For example, if more old people became engaged in active occupations, this engagement might heighten their vitality and reduce certain of the deficits of senescence.

Upgrading of the capacities of the young (2), as through modern education, can influence the technological and cultural development of an entire society.

Apart from such specific examples, the dynamic processes underlying the age structure are of dramatic significance for any full understanding of social change. Time is the dimension along which both social change and the age-related processes occur. And innovation can be fostered not only by the succession of new cohorts (P1) and by the plasticity of the aging individual (P2) (see Ryder, 1965), but also through the mechanisms of allocation (P3) and socialization (P4).

## 2 · C SITUATIONAL VARIATION

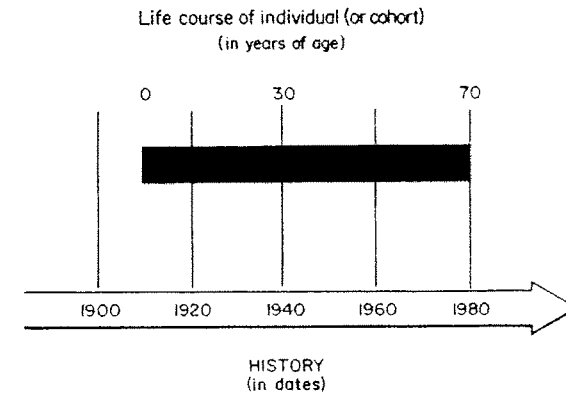
Sections 2 · A and 2 · B have illustrated the impact of the environment on our age-specific model by focusing on change over time and on the single society as a unified system. But, of course, the age structure at a single point of time can also show variations among different societies, or (through compositional analysis) among different subpopulations within the same society [see the discussion of compositional analysis in Chapter 2 · 1 · B and 2 · 4 · B]. In the United States today, for example:

Age-related expectations and sanctions (as well as socialization practices) differ between lower and middle classes.

Roles open to persons at various ages differ between blacks and whites.

Thus an understanding of the place of age in society requires analysis of the interrelationships of environmental factors both to *changes* in the age-specific aspects of society and to *variations* that occur in different collectivities under varied socio-temporal conditions.

FIGURE 1 · 4 Personal life course in relation to history of society



## 3 Some implications of the model

Such a preliminary examination of the age structure, necessarily condensed and abstract, begins to suggest the complexity of age as a sociological concept. While a fuller understanding awaits the discussions in the ensuing chapters, certain implications of age for individual and for society, and certain key questions requiring investigation, are readily apparent at the outset.

### 3 · A THE MEANING OF AGE

For the individual, or for the cohort of individuals,<sup>4</sup> the concept of age includes two parallel dimensions of time, one indexed by years of age as applied to the life course of a person (or cohort of persons), and the second indexed by calendar years as applied to the *history* of the society in which the person lives. Each dimension has at least three segments (see Figure 1 · 4): a *present*, a *past*, and a *future*. Thus the life course of the individual is demarcated by his present age, the number of years since birth, and the probable number of years until death. The corresponding dates and time intervals in the history of the society demarcate major segments of the environment in which the individual lives.

Each of these points and time intervals in the life course of the *individual* is an indicant of personal (biological, psychological, and social) experiences that carry varying probabilities of behavior and attitudes; and the parallel points and time intervals in his changing environment reflect the particular sociocultural and physical conditions and events—present, past, and future—to which the individual is exposed.

<sup>4</sup>Here again, and throughout the book, situational and subpopulation variability within age strata are taken for granted.

For the *society* as a whole, these six time segments have special implications for both the structural and the processual elements in age stratification (as outlined in Section 1).

### 3 · B STRUCTURAL IMPLICATIONS

See Chapter 10 · 3

At any given time, age serves to link persons who are of similar age as well as roles that have similar age criteria, and to segregate (or differentiate) those that differ in age.

*3 · B · 1 Age integration* Within particular strata, age often operates as an integrative mechanism for both society and for its individual members.

*Members of a particular age stratum* tend to be alike in all six time segments in Figure 1 · 4.

Thus, in biological stage and in participation in the role structure, they tend as individuals to share a common past, present, and future. They are alike in the sheer number of years behind and the potential years ahead.

They also share a common historical (environmental) past, present, and future. For example, those aged 30 in 1940 had all experienced World War I and the Great Depression, were currently exposed to World War II, and confronted the future of the 1940's through the 1970's.

As Mannheim ([1928], 1952) puts it, they share common positions in society.

Similarly, age links together *complexes of roles* that are otherwise differentiated.

For example, middle age is a life stage that often links together the roles of worker, spouse, and parent of dependent offspring.

Moreover, characteristic sequences of roles precede and follow the particular complex available in the middle years.

And these complexes and sequences of roles, quite apart from patterns of *individual* variation are also responsive to history—as history affects the role system and its age-specific elements.

Thus at a given period in history, individuals of similar age find their way into, and learn to play, roughly similar sets of roles. What pressures ensue, then, to produce solidarity among age peers? What counterpressures generate competition or conflict? To what degree do the consistency and congruence of role expectations lessen, rather than increase, malintegration within given age strata?

*3 · B · 2 Age segregation* Between strata, age operates quite differently, by segregating sets of people from one another and differentiating many of the roles they play.

*Persons in different age strata* hold different positions in five of the six time segments, as can be seen by comparing any two cohorts in Figure 1–3.

They share the same *present situation*.

They *differ* in all of the other five segments. However, there is a degree of overlap, depending upon such factors as the size of the time gap between the particular cohorts; or the rate of social change (e.g., there may have been more shared experiences in some respects between persons 30 and 50 in 1840 than between persons 30 and 50 in 1940).

Note also that, even when persons of differing age may encounter the same historical situation, they may experience it differently.

*Roles and role complexes* are also differentiated by age. For example, the roles of student, worker, and retiree (though somewhat overlapping) are typically separated by differences in age criteria.

Moreover, certain *relational* roles, such as parent and his offspring, are inherently differentiated by age.

Such age gaps between roles tend to persist in the social structure over time (history).

What mechanisms operate to articulate the structural gap between age strata? Is articulation between strata related to the degree and rigidity of age-grading within a society? Is there a perennial revolt of young against old, endemic to strains within the age structure?<sup>7</sup> To what extent does the constant shifting of personnel from one age stratum to the next (discussed in Section 3 · C) constitute a continuing threat to such articulation as may develop?

### 3 · C PROCESSUAL IMPLICATIONS

See Chapter 12

Over time, the cohort is the link between the life course of individuals and the sweep of history. Yet, the marked asymmetry between life course and history as dimensions of time stresses the divergent implications for age stratification of the two different sets of time segments. The differences can be seen by considering the past, present, and future of different cohorts—that is, by comparing (in Figure 1 · 3) individuals who are of similar age but who belong to sequential cohorts. On the life-course dimension, such individuals share many aspects of all three segments, since they tend to be *alike* in present life stage and in various of the biological, psychological, and social experiences of their personal lives, past and future. In all three segments of the historical dimension, however, the two cohorts—exposed as they were to differ-

<sup>7</sup> Compare the discussion by Eisenstadt (1956) of types of societies characterized by such revolt. [See also Chapter 10 · 3.]

ent eras—*differ* from one another. Subsequent chapters will explore various aspects of the processes along these two dimensions, and the differences between them, which can only be suggested in this Introduction.

**3 · C · 1 The life-course dimension** The process of aging on this dimension comprises the steady flow of personnel both through the age strata in the population and through the age-differentiated succession of roles (and role complexes).

Sequential roles over the life course may be more or less *continuous* (cf. Benedict, 1938) with one another [*as discussed in Chapter 11*].

Persons in one age category at a given time are the *same* individuals who are in another age category at another time. In this way age-differentiated roles are linked together by the passage through them of particular individuals. For example, a student revolt cannot develop permanent personnel and leadership, because individual members move out of the role of student and into adult roles.

Processes of allocation and socialization, operating to articulate the flow of personnel, are themselves limited by the *irreversible* character of the aging process.

**3 · C · 2 The dimension of history** The aging process on this dimension differs markedly in rhythm and periodicity<sup>8</sup> from social change, on the one hand, and, on the other hand, from the changes in population strata resulting from the processes of cohort succession and survival. These differing rhythms have dramatic consequences, as the following examples<sup>9</sup> can only begin to illustrate:

Social (historical) changes tend to set off the cohorts from one another, creating gaps between the age strata due to "cohort effects" as distinct from "aging effects."

Imbalances between numbers of roles and the supply of age-appropriate role players (between "supply" and "demand" within age strata) may be slow to remedy, insofar as such imbalances must await either structural changes in the role system or the formation and maturation of new cohorts of the requisite size. Note, however, that socialization can redress certain imbalances and that migration can sometimes operate comparatively rapidly to offset a deficit of role players in a particular age category.

### 3 · D AGE STRATIFICATION VERSUS CLASS STRATIFICATION

The potential value of age as a perspective for understanding society can be further suggested through a comparison between age stratification and the

<sup>8</sup> This phrasing appears in Sorokin (1941, p. 505).

<sup>9</sup> The examples under Section 2 · B also suggest some of the consequences in terms of social change.

more widely explored societal division according to socioeconomic status. (Similar comparisons might also be drawn with divisions in terms of sex, race, or ethnic background, which resemble age in having a biological base, but differ from age in not permitting mobility of individuals across strata.)

Both age strata and class strata may be conceived as ordering not only the people but also the roles in the society. And both tend to persist over time, or to change together in an orderly fashion, even though the individual incumbents may be shifting. However, the two types of strata differ in several respects, such as the following:

The criteria for class stratification are largely social (stated variously in terms of inequality of income, influence, power, etc.);<sup>10</sup> in contrast, the criteria for age stratification are in part *biological*.

Whereas socioeconomic strata are *ranked* to form a *social hierarchy*, age strata are typically ordered by time (hence, are more akin to geological strata).

Mobility of individuals across the age strata, but not across the class strata (Sorokin, 1959), is both *universal* and *irreversible*.

Thus all members of an age cohort move together over the life course.

And all members of different age cohorts maintain parallel distances from one another (e.g., the chronological age distance<sup>11</sup> between parents and their children remains constant), although the social class mobility of parents and children can diverge markedly.

Whereas both aging and class mobility locate individuals in current social processes (Mannheim [1928], 1952), the irreversibility of aging and cohort flow also ties individuals inevitably to the historical process.

Within a society, age strata and socioeconomic strata are, to be sure, intertwined. Since the particular roles in the complex occupied by persons of a given age are themselves differentially placed in the class hierarchy, that complex of roles can tend to confer a greater or lesser degree of prestige (or deference) upon the age group as a whole. In the United States today, for example, where many older people belong in the lower socioeconomic echelons (with low education and low income), old age is often stereotyped as a life stage carrying low esteem. However, the degree of esteem seems not to inhere in the age stratum per se, since individuals of the same age can have markedly different class positions depending upon what roles they play (or have played in the past). Old age could not in itself confer low prestige upon an Einstein, an Eisenhower, or a Casals.

<sup>10</sup> For a summary of the theories of Marx, Weber, the functionalists, and others, see, for example, Lipset (1968). See also Riley, 1971, for a comparison of age and class stratification.

<sup>11</sup> Though the social distance indexed by an age gap of, say, 20 years may have quite different meanings when the parents are at age 65 rather than at age 45.

#### 4 Synopsis of the book

The chapters of this book will explore from several points of view the nature and implications of a sociological theory of age stratification.

Part 1 is a conceptual and methodological introduction that investigates various types of empirical approaches for developing and testing such a theory. Chapter 2 discusses the data used to index the several structural and processual elements in the conceptual model outlined in Chapter 1, and examines the possibilities and problems of interpreting such data (while the numerous biases arising from procedures of sampling, data collection, and analysis that characterize much available research on age are examined in an Appendix at the end of the book). In Chapter 3, Ryder describes the notion of population, pointing to applications of this demographic frame of reference to several problems of concern to sociology.

Before examining (in Part 3) the full complexity of roles and role sequences confronting the differentiated and ever-changing age strata in the population, the chapters in Part 2 treat society segmentally, concentrating respectively upon discrete institutions. This part consists of essays by several different authors that interpret the principles of age stratification in selected fields of sociological inquiry. These chapters test the relevance to particular aspects of the society of a sociological view of age; and they serve, in turn, to revise, specify, and amplify the more general formulations outlined in the other parts of the book.

Part 3 proceeds to specify and exemplify the elements in our conceptual model of age stratification, and to explore their interrelationships. Underlying the discussion of this model in Chapters 10 through 12, are two cross-cutting dimensions that stress respectively:

1. A *microlevel* focus on the individual role or person, versus a *macrolevel* focus on the social system as a whole (role system and population);
2. A *synchronic* (cross-sectional) view that cuts through time at various historical periods, versus a *diachronic* view that traces processes over time.

Thus Chapter 10 views the age strata at given points of time dealing both with the society that contains these strata and with the individual persons who occupy roles and role complexes within these strata. Chapter 11 by Clausen takes a longitudinal perspective, tracing the life course of the individual (or the cohort of individuals) and the sequence of roles through which he passes. Chapter 12 reverts to the societal view, dealing processually with the composite of cohorts as they flow through, affect, and are affected by, the role structure, and with allocation and socialization as processes articulating role structure and cohort flow. This final chapter draws attention to the kinds of imbalance, strain, and deviance that can accrue from the operation of these

processes and can sometimes produce shifts both in social structure and in the underlying processes. Thus it brings together, from various parts of the book, diverse strands of the emerging theory of intimate relationship between age stratification and social stability or change.

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