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Sociological Practice

Volume 11 Issue 1 Social Gerontology: The Linkage of Sociological Knowledge and Practice

Article 3

January 1993

Section: Setting the Stage: Past and Future

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Recommended Citation

Editors, Sociological Practice; Cox, Harold; Newtson, Richard; Pollack, Otto; Heathers, Glen; and Riley, Matilda White (1993) "Section: Setting the Stage: Past and Future," *Sociological Practice*: Vol. 11: Iss. 1, Article 3. Available at: http://digitalcommons.wayne.edu/socprac/vol11/iss1/3

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Section: Setting the Stage: Past and Future

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History of Social Gerontology

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ABSTRACT

This article addresses the historical development of the field of social gerontology and examines the unique contributions of sociology, as well as the other social sciences. Cowgill and Holmes' "Modernization Hypothesis" is outlined and critiqued. Critical variables determining the status of the aged in different societies and historical periods are delineated, including family form, religion, knowledge base, harshness of the environment, and speed of social change.

Introduction

Throughout history, men and women have clung to life and have used every means available to prolong life. A common theme running through the historical records of all periods and cultures is the search for a way to reverse the aging process. The search for an elixir or a fountain of youth is almost universal. Breen (1970:10) observed that "special foods to be eaten, special relationships to be cultivated, surgery which might be undertaken, special waters or other liquids to be ingested all were thought to be solutions by some." It was not, however, until the 20th century that the understanding and study of the aging process left the area of witchcraft and folklore and became a legitimate subject of a number of different scientific disciplines.

In 1909, Dr. Ignatz L. Nascher first coined the term "geriatrics." Nascher created the word from two Greek roots; geronto meaning "the old man," and iatrike, meaning "surgery, medicine, or the treatment of." Thus we have geriatrics, "treatment of the old man" (Freeman, 1960), and, we presume, the old lady. Later, Breen (1970:6) observes that gerontology came into existence formed by the same root, geronto, "the old man" and adding ology, "the study of." Geriatrics, then, refers to the medical treatment of the old person and gerontology refers to the study of older persons and the aging process.

Still later, Tibbits (1960:3) coined the term "social gerontology," referring to the fact that aspects of gerontology have a major component of social factors and forces. Included in these social forces are roles and status of the old, how the old are viewed by society, and the degree to which normative aspects of aging determine the behavior of older persons. While the subject of aging is of interest to a number of scientific disciplines, the focus of this paper will be on sociology's contribution to the field of social gerontology.

The Uniqueness of Social Gerontology

A number of social gerontologists have delineated the focus of the social scientist studying aging into the category of studies of situational changes in later life. These changes involve the older individuals' adjustments to a changing role in the family, the community and the society. These are at various times defined as socioeconomic, sociological, or situational changes in old age.

Tibbits (1960), Cox (1988), and others have identified a number of situational changes to which an older person must adjust:

- 1. the completion of the parenting role;
- 2. changing attitudes (often negative stereotypes) toward the aging individual by significant others;
- 3. loss of the work role and acceptance of the retirement role (with the concomitant loss of income, status, privilege, and power associated with one's position in the occupational hierarchy);
- 4. a major reorganization of one's life and time following retirement;
- 5. a new definition of self which is not tied to career and parenting responsibilities;

- 6. the search for a new identity, meaning, and value in one's life;
- 7. the loss of health and restricted mobility;
- 8. a need for special living arrangements;
- 9. the death of a spouse;
- 10. disability and the recognition of one's own impending death.

Any of these changes can result in a loss of self confidence on the part of the individual and considerable effort must be utilized to maintain ego balance when confronted by the inevitable stresses of old age.

Changing economic, social, and political roles in old age have provided fertile ground for a multitude of studies of behavioral changes in later life. Economists have carefully delineated the economic needs and resources of older persons. On the one hand, they observe that the elderly, while living on a lower income, generally have no children living at home, are retired, own their homes, and have expenses that are likely to be lower than the middle years—except for medical expenses which are likely to be higher and to climb steadily as one ages. On the other hand, the economists point out that the elderly are confronted with the problem of maintaining an adequate standard of living on a fixed income where inflation and rising prices are constant and inevitable. Moreover, there is little or no opportunity for the elderly to increase their income at this stage of life.

Political scientists are quick to note the increasing impact that the elderly have on the federal government as a result of the fact that they represent an ever increasing number and percentage of the total population. Moreover, political scientists observe, older persons are more likely to vote than younger persons and through organized groups who lobby for their interests such as the American Association of Retired Persons they have considerably improved the share of the nation's resources directed to their needs in the last 20 years. The growing influence of the nation's elderly on the political system will provide fertile grounds for study for political scientists for some time to come.

Sociologists have long focused on the socialization of individuals for the changing roles and statuses that accompany different stages of the life cycle. When older Americans plan for the next phase of their lives, not all of the roles they will be assuming are positive and desired. Retirement after 40 years of striving to succeed in a career may be desirable. Being a widow or widower, being sick, or being disabled, however, are roles that usually are not desired. For most, this is the first time in their lives that the future is not viewed positively and anticipated with high expectations. Adjustment to changing roles and status and the inevitable losses of old age have provided, and will continue to provide, fruitful research endeavors for sociologists.

Scientific Development

Social gerontology has at its roots a charitable concern for the aged who are either infirm or abandoned. This most typically is regarded as the effect of the transition from agrarian to industrial societies (Vedder, 1963). A particular school of thought, called Social Darwinism, believed that evolution should be allowed to continue unimpeded, and some even believed that aged people who could not survive on their own should be allowed to die. Fortunately, Social Darwinism was eventually eroded by the publication of works by social scientists such as Mead, Cooley, and Thomas. These authors used both a sociological and a humanistic perspective. They gave scientists a framework that enabled them to study behavior in terms of roles, status, norms, and social change. With these concepts and with a desire to solve problems, sociologists finally began to focus on the aged (Crandall, 1960:35-36).

One of the first sociological studies specifically dealing with aged Americans was performed by Landis in 1940. His study, "Attitudes and Adjustments of Aged Rural People in Iowa," focused on the adjustment patterns of the aged (Tibbits, 1960). In 1943, Burgess established the Committee on Social Adjustment in Old Age. A report was published by the committee which suggested more research was needed in areas of adjustment to aging and retirement, employment, income, and relationships with the family (Tibbits, 1960). Pollak's 1948 book, *Social Adjustment in Old Age*, provided "... a framework from which to conduct future studies" (Crandall, 1980:36).

Simmons was one of the first scientists to write about the social aspects of aging in different cultures. An anthropologist, Simmons, published a book in 1945 titled, *The Role of the Aged in Primitive Societies*. The publication of this book led to further study of agrarian and industrial societies and their effects on the aged (Tibbits, 1960).

In the late 1940s, the University of Chicago began to encourage research on aging, and by the early 1950s the University of Florida, Iowa State University, Duke University, and the University of Connecticut, all had programs in gerontology (Tibbits, 1960).

By the 1950s, the Club for Research on Aging had changed its name to the Gerontological Society and elected Burgess as its first president. Today, the Gerontological Society publishes both the *Journal of Gerontology* and the *Gerontologist*. In 1955, the Gerontological Society established a committee to consider how to increase the number of adequately trained gerontology teachers within higher education (Tibbits, 1960). In 1961, Rose and Peterson's book, Older People and Their Social World, the result of conferences of the Midwest Sociological Society, was published. This was only the beginning. By the late 1960s and early 1970s, three more important books had been published on aging: Aging and Society: An Inventory of Research Findings by Riley; and Aging and the Professions and A Sociology of Age Stratification, both edited by Riley, Johnson, and Foner (Crandall, 1980). These books formed the foundation of the growing body of knowledge for scientists working in the area of the sociology of aging.

Aging in Different Historical Periods

A review of the treatment of the aged in different historical periods led to Cowgill and Holmes' (1972) landmark work which first appeared in the book Aging and Modernization. These historical and cross-cultural comparisons of the role and status of the elderly in different societies have proven to be most valuable to our understanding of the position accorded the elderly both in agrarian societies and in the current post-industrial societies of western Europe and the United States.

Every society has a group of persons who are defined as old. Age grading seems to be a universal phenomenon in all societies; anthropologists maintain that without exception every society has divided its people into categories based on age. At different points in history, however, the age at which one was considered old has varied considerably. Forty-year-olds in many primitive societies would have been considered very old, having outlived the great majority of their cohorts.

According to Thomlinson (1965), if deaths from all causes except degenerative diseases were eliminated, the potential life span of humans would be about 120 years. However, life expectancy—the age to which the average person can expect to live—has varied considerably over time. Archaeologists have studied the age at death of our prehistoric ancestors and concluded that about 95 percent of them died before the age of 40. Cook (1972) estimates that 75 percent did not reach the age of 30 (see Table 1). The high mortality rates in the prehistoric period are presumed most often to be the result of periodic famine and frequent malnutrition, each a characteristic of unstable food supplies.

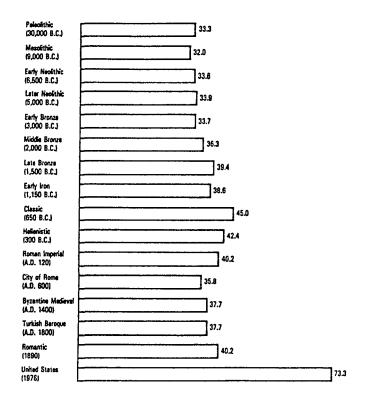
Cook (1972) has estimated that less than half the Greek population in the Hellenistic and Roman eras reached what we would today consider young adulthood. Those who survived the precarious early years of life might have

 TABLE 1

 Percentages of Prehistoric Populations to Have Died by Ages 30, 40, and 50.

	Age 30	Age 40	Age 50
Neanderthal	80.0%	95.0%	100.0%
Cro-Magnon	61.7	88.2	90.0
Mesolithic	86.3	95.5	97.0

Source: Shelburne Cook, "Aging of and in Populations," in Developmental Physiology and Aging, ed. P. S. Timiras (New York: Macmillan, 1972), p. 595.



Source: Adapted from J. Lawrence Angel, "Paleoecology, Paleodemography, and Health," in Population, Ecology and Social Evolution, ed. Steven Polgar (Chicago: Aldine, 1975), pp. 167–90.

FIGURE 1 Life Expectancy at Age 15 for Different Historical Periods expected to live longer than average since many babies died during childbirth and early childhood. At birth, the ancient Egyptian male could have expected to live approximately 22 years. Those who survived early childhood could have expected to live to be 25, and those who reached age 25 could probably have expected to live to age 48 (Cook, 1947: 83-89). It is estimated that during the Middle Ages the average male at birth lived to be approximately 33 (Russell, 1948:24). Figure 1 (Angel, 1975: 167-90) indicates life expectancy at age 15 in several historical periods. Fischer (1978) observes that the first census in the United States was taken in 1790, at which time less than 20 percent of the American population survived to the age of 70; today more than 80 percent can expect to do so.

In the early historical period, the old were usually valued because their experience and knowledge were useful for the survival of the entire culture. The old held the culture's customs and traditions. Only the advent of senility could diminish the esteem in which they were held, and even then they sometimes were given special statuses.

Although the old were generally accorded a much higher status in primitive societies than they are in modern industrial nations, there was considerable disparity in how they were treated. According to Fischer (1978), statements by the Greek historian Herodotus indicate that at one extreme the Issedones gilded the heads of their aged parents and offered sacrifices before them. They seemed to worship their oldest tribal members. At the opposite extreme were the people of Bactria, who disposed of their old folk by feeding them to flesh-eating dogs. Similarly, the Sardinians hurled their elders from a high cliff and shouted with laughter as they fell on the rocks below (Fischer, 1978:6).

One difficulty anthropologists and sociologists have in comparing the roles, status, and general position of older persons across cultures is that some form of stratification exists in every society, and not all older persons are treated alike. Also, de Beauvoir (1972) observes that the role of the aged in any historical study is described from the male point of view. She notes it is men who express themselves in laws, books, and legends, essentially because the struggle for power has in the past been considered the concern of the "stronger sex."

Traditional China granted old men a privileged position. This was a value of the prevalent Confucian ideology. In politics and in the family, aged men occupied the top positions in a hierarchical society that lasted for thousands of years. In the family, everyone deferred to the oldest man. The wife was expected to be obedient to her husband; the son obeyed the father; and the younger son was obedient to the older son. The father literally had the power of life or death over his children. He arranged their marriages and supervised both his children and their children throughout his life. The oldest male's wife also occupied a role of respect over both the younger males and the younger females of the family. At 50, the man gained in importance; at approximately 70, he turned the household over to the oldest son and began to be worshipped as an ancestor.

Fischer (1978) mentions a stratification system among the aged: for slaves and servants old age was probably so cruel that an early death was a kind of blessing, but for the elite, old age delivered the protection of power and property. Fischer also points out that the old men were so important to the government of Rome that Cicero argued they were indispensable. Without old men, Cicero felt, there would be no civilized states at all.

As a general rule, in nonindustrial, settled, agricultural societies, the aged exercise considerable power and are granted high status. In industrial societies, on the other hand, the aged exercise relatively little power and are granted less status. Cowgill and Holmes (1972), in their work on aging and modernization, found an inverse relationship between the degree of modernization in a culture and the status it accords older persons. In other words, the more industrialized the culture, the lower the status of the older person.

A closer look, however, reveals differential treatment of the elderly even in traditional societies. Sheehan (1976), in a study of 47 traditional societies, found two different patterns of treatment of the aged. Approximately one-fifth of these societies were geographically unstable, with semipermanent bands periodically relocating their villages, or, more rarely, perpetually mobile. The lowest esteem for seniors often was found in these small and nomadic societies. Such societies have the fewest material resources, which deprives seniors of an important means of gaining respect in the eyes of the young. They also are usually located in harsh environments, which favor youth and vigor. Moreover, food is often in short supply, and individual existence is precarious. The elderly may have to be sacrificed to insure the survival of the group. On the other hand, the majority of the societies Sheehan studied consisted of tribes settled more or less permanently in fairly large villages and governed by a belief in their common ancestry of kinship. Another group of traditional societies was centered in agriculture or animal husbandry. The most highly developed social organizations were found in the societies with large landed peasantries; it was in these societies that older persons enjoyed the highest esteem.

It appears that once traditional societies become permanently located with stated residence and property rights, the old begin to exercise considerable power over the young by owning property and deciding who gets to inherit it. Where farming is the primary means of production, the aged can control the younger generations by controlling the property. The future occupations and chances for success of the younger generation are tied to the favor of their elders, who control all the resources. While one's parents are alive they are of critical importance because they provide employment and the means of survival in the form of resources. After they die, those who inherit their lands control these resources for themselves and their children. Therefore, in traditional societies that are permanently located, the individual is directly dependent upon the senior generation for the acquisition of the means of production. The anticipated transfer of property to the children at the death of the parent encourages the young to respect their older family members. It is easy to see why the young defer to their elders and seek their special favor. Similarly, it is easy to understand how the old, by developing stable institutions and controlling property, can maintain their power and privilege in the social system. This may also explain the higher value placed on the family in rural America, where the transmission of land to the next generation may secure that generation a livelihood and a comfortable position in the social structure.

Thus, Cowgill and Holmes's (1972) prediction of an inverse relationship between the degree of modernization and the status accorded older persons seems to be inaccurate. Instead, the relationship is a curvilinear one: the old are accorded low status in simple nomadic societies, high status in settled agricultural communities, and low status in modern industrial nations. Moreover, a number of authors have argued that in the post-industrial period, which much of Western Europe and the United States appears to be entering, we are seeing a bottoming out of the low status accorded the elderly and a slight rise in their position (Palmore and Manton, 1974; Keith, 1980). Keith (1980:345), for example, points out that "in the present USSR and in the U.S. during the Depression...national pension funds have made older people quite literally valuable and sought after members of households. Such national support systems are one reason that the relationship between modernization and old people's status appears on closer examination to be curvilinear, i.e., the decline in status associated with modernization bottoms out and is reversed in most post-industrial societies." Thus the curvilinear relationship appears to be bimodal-starting at a low point in simple nomadic societies, reaching a high point in settled agricultural communities, dropping to a lower status during industrialization, and returning to a slightly higher status in the postindustrial period.

The modernization theory advanced by Cowgill and Holmes (1972) is a generalization about the status of the elderly in a variety of cultures and over long periods. As with many other scientific generalizations, the critics have pointed out many exceptions to the general principle. Bengston, et al., (1975:689) have observed that the theory suffers "from a romanticized and naive portrayal of eldership in pre-industrial society." They apparently feel that the aging might not even have had the universal high status predicted for them in the settled agricultural countries. Other critics have charged that there is considerable variation in the status of the elderly within any society and that social class and gender probably account for more of the variation than does the kind of culture (Dowd, 1980; Williamson, Evans and Powell, 1982).

Ultimately, the theory of modernization and aging will be accepted for what it is, a generalized theory about how the kind of culture and the historical period can affect the status of the aged. The theory may well have to be modified in the face of the criticism just noted. The curvilinear relationship discussed earlier, however, can still explain considerable variation in the role and status of the elderly over the course of recorded history.

Determinants of the Status of the Aged in Different Cultures

Past anthropological and sociological studies of the role and status of the aged in different cultures have led to the identification of a number of different variables that combine to determine the status accorded older persons in different cultures. These variables are drawn from the critical foundation of much of our current understanding of the role and status of older people in society. They lay the foundation for the discipline of gerontology. These include family form, religion, knowledge base of the culture, harshness of the environment, means of production, and speed of social change.

Family Form

The form of the family is often related to cultural type and to the structural relations among the institutions in a society. In traditional societies that are primarily agricultural, the extended family (most often comprising mother, father, their sons, and their sons' wives and children) is often the prevalent form. The extended family is most often patriarchal, which means that power and lineage are traced through the male side of the family. The wife, upon marriage, moves in with the husband's family, and when children are old enough to marry, the parents arrange for their marriages and expect the wives of their sons to move into their household and their daughters to move into the households of their husbands.

In this family arrangement, the oldest male member of the family exercises the greatest power, privilege, and authority. Individualism is discouraged. The individual is always subservient to the demands of the group. The concept of romantic love (strong, intense emotional attachment between members of the opposite sex) is nonexistent; marital success depends upon the amount of family disruption caused by the entrance of the new bride. If she gets along well with her in-laws and does not cause problems in the family setting, the marriage is considered good. The son's happiness is secondary to the good of the family. The extended family works best in stable cultures that are primarily agricultural. As we have seen, it is also in such cultures that the older members exercise the greatest power and maintain the highest status.

Industrialization leads to the breakup of the extended family. People no longer depend upon land as the principle means of production. New jobs, careers, resources, and opportunities become available. Modern industry requires labor that can be moved from place to place as needed. Extended family ties are broken in the process. If the labor force were not mobile, the industrial system would break down. The nuclear family—husband, wife and children—becomes dominant. The influence of the father and mother over adult children is weakened. The size of the family declines as children become units of consumption rather than production and thereby become less desirable.

The difference between extended and nuclear families in terms of the status of the aged can perhaps be seen best in Israel. Weihl (1970) observes that the older people among the migrants from the Orient are given higher status than the older immigrants from the Western countries. The migrants from the Orient evidence considerable commitment to the concept of the extended family, in contrast with the commitment to the nuclear family evidenced by migrants from the West.

Religion

The ethical codes of the religions of the Far East have generally supported the extended family and the higher status of its elder members. Confucianism dictates that the aged are to be given tender loving care and are to be exempt from certain responsibilities. In pre-World War II families in China and Japan, children cared for their elders and older family members exercised the most authority. This also meant that the elders were the most respected members of the family.

Although Christianity clearly admonishes people to honor their fathers and mothers, this principle has probably had less impact in the Western world than one might expect. The pressure of industrialization results in the educational functions of family socialization being gradually replaced by formal training outside the home. Wealth changes from land to tangible property. The emphasis shifts to productivity. Degradation generally occurs for the older, and supposedly slower, workers.

Knowledge Base

In traditional agricultural societies, the old are the reservoirs of knowledge—of past problems and their solutions, of old customs and the appropriate religious rituals. In industrial societies, books, libraries, universities, and currently research enterprises are bases for the generation and transmittal of knowledge. The newly trained college student is often more valuable in the business and industrial world than the older and more experienced employee, whose knowledge and expertise may have become obsolete. American society has a sophisticated educational system that prepares young people to enter an occupation, but it is ill equipped to retrain older workers when this is required by new technologies. The inability to maintain control of critical knowledge in modern society has been another factor in the general loss of status of older persons.

Harshness of the Environment

The harshness of the environment and the amount of physical labor required for survival can reduce the usefulness and thereby the status of the older members of a culture. The Sirono of the Bolivian rain forest, for example, generally believe that "the aged are quite a burden; they eat but are unable to hunt, fish, or collect food; they sometimes hoard a young spouse, but are unable to beget children; they move at a snail's pace and hinder the mobility of the group. When a person becomes too ill or infirm to follow the fortunes of the band, he is abandoned to shift for himself" (Holmberg, 1978:6).

Cowgill and Holmes (1972) note that there is some difficulty in adjusting to reduced activity in old age in a society dedicated to hard physical labor. Kibbutz society in Israel is one example; there, older persons may arrive at an ambiguous status because of their inability to keep up physically with younger people.

Speed of Social Change

Related to the changing knowledge base in modern society is the speed with which social change occurs in a culture. Cowgill and Holmes (1972) believe that rapid social change in modern societies tends to undermine the status of older persons. Change renders many of the skills of older Americans obsolete. They can no longer ply their trade, and so there is no reason for them to teach it to others. In a rapidly changing society, the younger people are nearly always better educated, especially about recent technological innovations, than their elders. Thus, the latter lose their utility and the basis of their authority.

Referring to both the speed of social change in modern society and the location of the knowledge base in a society, Watson and Maxwell (1977) hypothesize that societies can be arranged along a continuum whose basis is the amount of useful information controlled by the aged. They believe that the more elders control critical information, the greater will be their participation in community affairs. Their participation is, in turn, directly related to the degree of esteem in which they are held by other members of the community. Watson and Maxwell (1977:26-29) believe this control of information and consequent social participation decline with industrialization and its rapid sociocultural change.

Watson and Maxwell (1977) further argue that one of the most fruitful approaches to the investigation of human societies relies heavily on the information storage and exchange model known as systems theory. Goffman (1959) has demonstrated that groups that share secret information tend to be more unified than those that do not. All stored information, according to Goffman, involves a stated arrangement of elements in the sense that it is a record of past events.

In traditional societies, one of the main functions of older people is to remember legends, myths, ethical principles, and the appropriate relations with the supernatural, and they are frequently asked about these matters. Elliott (1886: 170-71) described this pattern among the Aleuts of northern Russia:

Before the advent of Russian priests, every village had one or two old men at least, who considered it their special business to educate the children; thereupon, in the morning or evening when all were home these aged teachers would seat themselves in the center of one of the largest village courts or oolagumuh; the young folks surrounded them and listened attentively to what they said. Watson and Maxwell (1977) believe that the printing press ended this kind of arrangement. In industrialized societies, the important information is written down, printed, and sold in bookstores (Watson and Maxwell, 1977).

Some historians have argued that older people are economically, politically, and socially more conservative than younger people and tend to have a stabilizing effect on any social system. The young, on the other hand, are attempting to fit themselves into desirable roles in order to acquire status, privilege, and power. Rapid social change often offers them the possibility of a number of new roles they may be well qualified to fill. Since their secure positions could be lost in a period of rapid social change, the middle-aged and older members of society are likely to favor stability rather than change in the social order.

Summary and Conclusion

Social gerontology emerged in the 1940s and 1950s as a subject matter worthy of serious scientific attention and research. The theoretical basis and scientific perspective of sociology placed the discipline in the unique position of having the tools immediately available to address the issues of the later phase of the life cycle. Sociology had traditionally viewed personality as a collection of the individual's roles and statuses and how the individual organized and prioritized these into a unique self. Moreover, sociologists expected personality to change throughout the entire life cycle since the individual was regularly and predictably acquiring new roles and discarding old ones. As the individual's role and status changed at different ages in life, then his/her sense of self and personality would also be expected to change. The role, status, and expected pattern of behavior of the new bride would predictably be quite different from the role, status, and pattern of behavior she would assume as a grandmother. Thus, the study of what happened to the individual during the later phase of the life cycle was relatively easy for the sociologist to address.

By way of contrast, psychology relied heavily on the Freudian perspective in the 1950s. Psychologists tended to see personality as fairly fixed and stable by the late teens and anticipated little change throughout the life cycle. This perspective did not immediately lend itself to studying the changes in personality and self that accompany aging. With the work of Erickson (1964), Buhler (1968), and Jung (1971), psychologists began to trace human development throughout the entire life cycle. Currently, thanks to these pioneering works, psychologists as well as sociologists have focused their research and writing on the changes and adjustments required of the individual throughout the entire life cycle.

Sociology's analysis of the structure of societies (and the roles accorded individuals within the structures) led to, perhaps, the most basic and far reaching findings in the field of social gerontology. From this perspective, Cowgill and Holmes (1972) developed their landmark work on aging and modernization. This work delineated the role and status of the aged in both agrarian and post industrial societies, and traced the diverse roles of the elderly in different historical periods and different cultures. Moreover, Cowgill and Holmes were able to delineate the critical factors determining the role and the status of the aged in diverse societies. While the current research of social gerontologists and anthropologists continues to expand on their work, the contribution they made was invaluable to our understanding of the role of older persons in disparate societies.

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Social Adjustment in Old Age: A Research Planning Report*

Otto Pollak, Social Science Research Council with the assistance of Glen Heathers

ABSTRACT

This article is a reprint of a planning report prepared by the Social Science Research Council in 1948. It represents one of the first earliest reports on the implications of the changing demographic structure of society in the United States.*

Introduction

The last two decades have witnessed a increasing social concern with the problems of later maturity and old age. This trend has found its expression among the ranks of the general public as well as among scientist and seems to have resulted from a combination of determinants.

^{*}Abstracted by the Editors from "Social Adjustment and Old Age: A Research Planning Report," New York, Social Science Research Council, 1948. Reprinted by permission.

Present Status and Problems of Research of Old Age

Although demographic developments and a variety of cultural determinants are thus focusing social concern on the aged as a population group, only the sciences of biology and medicine have contributed a great deal of effort toward coping with the problems of aging. A new branch of medical specialization, geriatrics, is being developed and Cowdry's monumental work on the biological and medical aspects of aging, Thewis' treatise on the medical care of the aged, and Kaplan's volume on the mental diseases of old age to the degree of scientific attention which personnel in these fields are giving to the problems of aging.¹ Similarly the contents of the new Journal of Gerontology seem to indicate that biology and medicine have advanced further in old age research than the social sciences. It is true that medicine has not been able so far to deal as effectively with the diseases of old age as with the diseases of childhood and youth, but some definite gains have been made and deserve recognition. The average life expectation of males 40 years of age in the United States, for example, has increased from 27.74 years in 1900-1902 to 30.27 in 1942, and that of females of the same age has increased from 29.28 to 33.86 years. The gains over longer periods are even more appreciable, e.g., the average life expectation of 40-year-old-males in Sweden during the period 1816-40 was 23.66 years, and in the period 1931-35, 32.50 years. Recent results in attempts to correct the chemical upsets which the aging process seems to produce in the body, the success of hormone therapy in the treatment of glandular deficiencies, and advances in the field of nutritional research seem to permit further hope for improvement.

Compared with these strides in biological and medical research on old age, the amount of progress in social science research on the subject is relatively insignificant. Except for statistical analyses of older population groups by demographers and special research by economists on the problem of social security, the exploration and analysis of the social aspects of aging have been largely neglected until recently. Social science research has paid little attention to such questions as how older people of different ages participate in our society, what their major problems are, and what solutions they require.

The greater advance of the medical sciences than of the social sciences in research on problems of aging is understandable, however. The fight against death has always been the legitimate concern of the former and logically has led their representatives to investigate the medical and biological aspects of aging. But among social scientists the motivation for studying the social impact of aging upon the older individual and upon society is comparatively new, since it has resulted mainly from the relatively recent demographic and cultural developments outlined above. It was logical, therefore, that they should have been inclined to treat age as a variable in the analysis of social phenomena rather than as a social phenomenon worthy of examination as such. However, where public concern has focused on a special age group, for instance, adolescence, social scientists have responded by revising their approaches and intensifying their efforts, and seem about to do so with respect to old age.

Certain changes in scientific thinking have prepared the way for this development. First of all, there has been a great increase in the emphasis placed by social scientists on the study of personality and interpersonal relations. Socio-psychological problems of aging evidently fall in this area. Secondly, there has been an increasing tendency to employ the developmental or case study method in the study of the entire life span of the individual. When the development approach is employed in this way, later maturity and old age are seen simply as additional periods of life to which the individual attempts to adjust. Research on problems of aging is certain to benefit both in volume and significance from this orientation of scientific thinking in terms of the total life span.

Thus public pressure as well as internal reorientation in all probability will stimulate considerable social science research on problems of aging. Envisaging this trend, the Committee on Social Adjustment of the Social Science Research Council in 1941 selected adjustment of old age as a field which required active attention. Because of wartime diversions of personnel, however, it was not until 1943 that a subcommittee on social adjustment in old age was formed and undertook as part of its program the preparation of a memorandum designed to be of aid in planning and conduct of future research in this field. The present bulletin is a product of this project.² Its central purpose is to provide suggestions concerning research problems which merit immediate attention, and techniques which promise results in the investigation of these problems. No attempt is made to present, as a part of this bulletin, a review or appraisal of research conducted to date because little has been done that was not mainly exploratory in nature. However, references to significant researches already published will be made in context wherever their findings are relevant.

Since the social problems of aging are the joint concern of sociologists, psychologists, and anthropologists, and economists, and effort has been made to develop a formulation inclusive enough to embrace the question and research methods involved in the approach of any social scientist to

these problems. Such a formulation seemed to stem most easily from a central emphasis on the adjustment pattern in its relation to the changes in needs, capacities, predispositions, and opportunities for satisfactory living which accompany old age. The problems created by these found to be the foci of interest on which the research efforts of all students of old age seem to converge.

Patterns of adjustment in their broadest range can be conveniently covered by the term social adjustment which in its common sense meaning refers to all efforts of human beings to find more satisfactory ways of getting along with one another.³ In this sense it includes the efforts of an individual to satisfy his personal needs as well as to live up to the expectations of others, on the one hand, and the efforts of groups to provide better opportunities for need satisfaction on a mass basis, on the other. On this ground the research interest of psychologists in individual adjustment as the process of need satisfaction by a person's own effort and the research interest of cultural anthropologist, sociologists, economists, and political scientists in societal adjustment as the process of providing opportunities for need satisfaction through institutional arrangement and rearrangement can meet in a manner permitting mutual supplementation and integration.

Practical Considerations

In a memorandum designed to assist social science research in all pertinent fields of social aging, still another problem must be considered: What is the lowest chronological age limit which should be used in order to insure attention in research to all significant aspects of social aging in a given culture? As has been pointed out, the increasing interest of social scientists in the problems of old age is the result of a growing awareness of the demographic aspects of old age in our culture and of the prevailing social concern with the problems of aging. Delimitation of the problem area should take account of these two conditions. From this view it is proposed tentatively to set 60 years of age as the lower limit of future research interest. This limit is intentionally set lower than the most conspicuous chronological definition of old age in our society, which is 65. The latter is the age of eligibility for social security benefits, a frequent age for retirement from employment, and the standard age at which privately arranged annuity income payments begin. It must not be forgotten, however, that social security legislation was gained in opposition to one of the most basic tenets of our social philosophy, i.e., that individual independence and freedom from

governmental regulation are desirable social goals. This legislation therefore represented a compromise which could not take account of all economic manifestations of age typing in our culture. Furthermore, the trend of retirement ages is toward earlier retirement as indicated by the shift from the 70 to the 65 year age limit in some fields. In other fields of societal activity hardly anything is known regarding modal expressions of age typing, and it consequently seems desirable to locate to lower limit of the area of interest at an earlier rather than a later age in order to assure a greater probability of coverage of the relevant phenomena.

However, in certain areas old age research will have to start at ages below 60. In the study of family relations, for instance, the impact of the climacteric upon the sex life and upon the emotional life of the marriage partners will require the inclusion of women in their late 40s and early 50s in the population group of research interest. In the field of industrial employment, the worker over 40 is frequently considered as the exponent of old age and will therefore have to be treated as such by students of economic adjustment in old age. Other major exceptions to the 60 year rule may appear necessary.

Thus, as a matter of expediency in research it is proposed to consider persons aged 60 and over as generally of interest to the student of old age, with the reservation that the actual chronological delimitation of the particular population group to be studied will depend on the specific problem under investigation as well as upon future research findings regarding functional aspects of aging.

A Proposed Frame of Reference

As already indicated, coordination and integration of the research efforts of representatives of different disciplines hold great promise for a better understanding of the problems of aging than has been achieved so far. The relevant research which is needed includes demographic studies which classify the older population with respect to such factors as age, sex, marital status, residence, occupation, and income; psychological studies of the changes in needs and capacities which accompany old age and of the ways in which the individual responds to these changes; and sociological and economical studies of the changes in the social opportunities and social rewards which result from aging in our culture. The need for all these kinds of research and for their integration has been recognized in the past and there have been some attempts at coordination; but these have usually taken the form of symposia in which the individual contributors made their reports in the language of their own disciplines and within the delineation of their own departmental interests. The knowledge gained in one field therefore tended to remain unrelated and sometimes unrelatable to that gained in other fields.

In order to advance beyond this stage of uncoordinated research it will be helpful to establish a common frame of reference to which individual social scientists may relate their findings regarding the problems of aging and thus make contributions to knowledge which are complementary rather than independent of one another. The establishment of such a common frame of reference implies the achievement of agreement on two points: (1) the selection of the phenomena to be studied, and (2) the concepts which should be used in their investigation.

Selection of Phenomena

With regard to the selection of phenomena to be investigated we must keep in mind that the increasing interest in various aspects of aging is based largely on the widespread recognition that old age is a problem period, characterized by frustration, which represents special problems of adjustment. It is the solution of these adjustment problems to which social scientists are expected to point the way. In our pragmatic culture with its stress on the happiness of the individual as a social goal, combined with the frequency of social situations in which not all needs can be met, problems of adjustment stand in the center of general interest.

It is therefore proposed that social science research regarding the problems of aging should concentrate on the phenomena of change which aging implies, on the problems of adjustment which these phenomena of change present, and on the types of adjustive behavior which may lead to their solution.

Basic Concepts

In accordance with this selection of phenomena of primary importance in research on old age, exposition of the conceptual tools of value in this research falls into three major parts: (1) concepts pertaining to areas in which significant changes occur with old age, (2) application of these concepts to the problems of adjustment which these age changes present, and (3) concepts pertaining to types of adjustment. The student of human behavior has to consider the individual or the group of individuals in whom he is interested in relation to the total as well as to the various parts of their society and culture. The following concepts already in use in the various disciplines of social science furnish a promising approach to the study of the problems involved: age-sex categories, social roles, status, institutions, and subcultures.

NOTES

- 1. E. V. Cowdry, ed., Problems of Ageing: Biological and Medical Aspects, 2nd ed. (Baltimore: Williams & Wilkins Company, 1942); Malford W. Thewlis, The Care of the Aged, 4th ed. (St. Louis: C. V. Mosby Co., 1942); Oscar J. Kaplan, ed., Mental Disorders in Later Life (Stanford University: Stanford University Press, 1945).
- 2. See the Foreword.
- 3. Donald Young, "Memorandum on Suggestions for Research in the Field of Social Adjustment," American Journal of Sociology 46 (May 1941): 873.

Aging in the Twenty-First Century*

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It would be no news, of course, if I observed that aging in the twentyfirst century will predictably be different from aging in the twentieth. In the midst of all the other cataclysmic changes in this country and throughout the world, I almost hesitate to address such a topic as changes in aging.

Yet the changes are daunting. I have no crystal ball to dust off as an aid in considering them, but I do have some important observations to make. Among other changes, the increase in human longevity and its enormous implications for the aging process have to rank high. For the first time in history people are aging in a society where most people live to be old. In addition, while nearly three decades have been added to individual lives during the twentieth century on the average, the entire world—and all our familiar social structures and institutions—are changing around these lives. These social changes affect people's lives in many dramatic ways, ways that are still hard for us to comprehend because we are part of them.

All this is well known. What *is* news is that social and behavioral scientists have begun to study these manifold changes and to anticipate and debate the consequences for the future of the aging process and for its potential. That is, scientific research is providing many clues not only to

^{*} Abstracted by the Editors from: "Aging in the Twenty-First Century," the Boettner Lecture, Boettner Research Institute, Bryn Mawr, Pennsylvania, 1990, now Boettner Institute of Financial Gerontology, University of Pennsylvania. Reprinted by permission.

what aging *may* be like in the future, but also what aging *could* be like if the potential is fulfilled. These clues require a revision of traditional views as to what aging means.

Structural Lag

In this lecture I am going to talk mainly about potentials. First, however, I want to tell you about a new insight that points to these potentials. This insight, recently forged from research, defines one of the most perplexing problems of our time, the problem I call "structural lag." This concerns the mismatch between the two central changes before us here: (1) changes in individual aging and (2) changes in the structure of society that influence the ways individuals age. While more and more people live longer than in the past and grow old in new ways, social structures have been slow to make room for them. These structures are still geared to the population of much younger people that characterized the nineteenth—certainly not the twenty-first century.

Health-care systems, for example, often fail to provide the supports necessary for the many older people who, even when frail, now want to function independently. Unlike roles for school children or for young entrants into the labor force, few roles have been developed to fit workers or students who have grown old. Nor does society accord esteem and prestige to the significant productivity of older people's *unpaid* roles as homemakers or caretakers of the disabled. So I speak of the current mismatch as "structural lag" because the structure of social opportunities has not kept pace with the rapid changes in the ways that people are now growing old.

Clearly this mismatch is fraught with contemporary problems. Yet within it lie untold promising potentials for the future. My message here is one of optimism. I shall argue that many of these potentials can become realities—that the mismatch can be reduced by diverse kinds of intervention. Intervention can occur through both public and private policies, changes in professional practice, and individual choices in everyday life. After all, the future does not just happen; it is created by human beings.

This is my vision: if the twentieth century has been the era of increasing longevity, the twenty-first century will be the era of social opportunities for older people to age in new and better ways.

To explain this prediction I am going to explore various kinds of intervention (both deliberate and "naturally" occurring social changes). First I shall discuss the potentials for aging—that is, how to optimize the already incredible strengths of people as they grow older. Second, and most critical for the twenty-first century, I shall consider the potentials for our outdated social structures—how to optimize the social opportunities for older people (and thereby to reduce the problem of structural lag). Third I shall offer a conceptual framework that social scientists use as an aid to the understanding of individual aging, social opportunities, and the mismatch between them. Of course such understanding is essential to a scientifically grounded vision of aging in the future and to the changes needed for bringing this vision into reality.

Optimizing Individual Aging

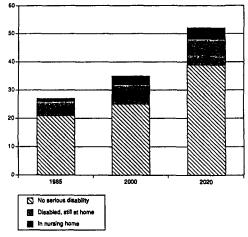
To begin with individual aging, let me call your attention to the unrecognized strengths and capacities of most older people. I shall destroy the myth that aging is exclusively a biological process. I shall ask you to think along with me that people do not grow up and grow old in laboratories, but rather in rapidly changing societies. And I shall report evidence for the proposition that the aging process is not fixed; it is mutable and subject to intervention and improvement.

The Fallacy of Inevitable Aging Decline

Much research has demonstrated that the doctrine of "inevitable aging decline" is a fallacy—a fallacy initiated by faulty interpretation of crosssectional data. Nevertheless, despite all the evidence to the contrary, this fallacious doctrine is still blindly accepted by many government policymakers, corporate executives, professional practitioners, and the public at large. The stereotype of inevitable decline remains stubborn; the very notion of aging seems to connote decrepitude, poverty, and misery ("afflicted with Alzheimer's disease," for example, or "imprisoned in a nursing home" or "dependent on medicine" as the only means of preventing either disease or institutionalization). Doctors are found to spend less time with older than younger patients. Old people themselves take their aches and pains for granted, and assume, falsely, that they cannot learn new skills or ways of thinking (such as use of computers or complicated technologies).

The "Real" Aging Process: Neither Fixed Nor Immutable

Yet those who listen to the evidence will realize that it is simply not true that, because of age, all older people are destined to be ill, impoverished, cut off from society, and sexually incapacitated, despondent, or unable to reason or to remember. Of course, everyone dies. And some older people a minority—are seriously disadvantaged and in need of personal and societal support. But the vast majority function independently and effectively (see Figure 1). The total number of people 65 and over will predictably multiply in the twenty-first century, but the large number of the healthy will heavily outweigh the number of disabled or institutionalized people.



Adapted from Kenneth Manton, Duke University

FIGURE 1

Increasing Number of Older People

The research evidence demonstrates that the aging process is variable so that still greater strengths are possible. Social scientists are showing how the aging process varies with social conditions: how individuals grow old in widely diverse ways depending on their family life, their socioeconomic status, and their work conditions. Social scientists are also showing how the aging process changes over time as society changes. My grandmother at 75 was very different from what I was at 75, and my granddaughters will be still different when they reach 75—because we were born at different times and grew older in different periods of history. Perhaps the most notable of all the historical alterations in the aging process spring from the unprecedented increases in longevity—which allow recent cohorts of young people to stay in school many years longer than their predecessors did, prolong retirement, postpone many diseases of old age, accumulate the experiences essential for wisdom, and extend family relationships, so that husbands and wives now typically survive together for four or even five decades or more. (For my husband and me 1991 was our sixtieth year of marriage.) And it is these more recent cohorts who will be the old people of the twenty-first century.

Potentials for Intervention

In short, the aging process is mutable, and most older people are able to draw on widely diverse competencies—in health, intellect, and involvement in affairs. In addition, (to reemphasize the point) there is significant potential for enhancing these strengths still further. Just consider what this means for the twenty-first century. Death is inevitable, but the nature of the aging process is not inevitable—and after all, it is the quality of the later years that counts.

What kinds of intervention, then, might sustain or even enhance this quality in the future? Social and behavioral research has been producing some spectacular findings:

- Among older workers intellectual functioning improves with age if the work situation is challenging and calls for self-direction.
- Very old people whose performance on intelligence tests has deteriorated can be brought back to their performance levels of twenty years earlier if the social environment affords incentives and opportunities for practicing and learning new strategies.
- Memory can be enhanced if the impoverished context that often characterizes retirement is altered to include the stimulation of a rich and complex environment.
- Even slowed reaction time, long attributed to irreversible aging losses in central nervous system functioning, can be speeded up if the social situation provides training and consistent feedback.
- Changing the social environment in nursing homes to increase the sense of personal control and independence in aging patients can result in greater social activity, changed immune functioning, and perhaps even lowered mortality.

Moreover, even when alterations in behavior, life-styles, and social contacts are made late in life, such alterations can still reduce morbidity and mortality. To stop cigarette smoking at age 60, for example, can make a difference.

Optimizing Social Opportunities

So much for the incredible strengths and potential capacities of older people. Please note, however, that all these and many similar instances of intervention in the ways people age are characterized by one common theme: the older person's functioning is contingent upon the social conditions. Bereft of social opportunities, resources, or incentives, older people cannot utilize or sustain their mental or physical strengths and capacities, and the "doctrine of inevitable aging decline" becomes a self-fulfilling prophecy. Thus the root of the mismatch lies not in people's capacities or in the aging process itself, but in the lack of suitable social roles through which individuals can move as they grow older. Consequently, aging in the twenty-first century, will depend upon changes in society: on reduction of the twentieth-century lag in social structures.

The Current Lag

Today's social structures and norms are the vestigial remains of the nineteenth-century, when most people died before their work was finished or their last child had left home. Age 65 was established as the criterion for insurance eligibility in Germany back in the late 1870s—yet age 65 is still used in many countries under today's utterly changed conditions of longevity. The older population is, of course, widely heterogeneous, but here are some examples of typical misfits between aging and social structures:

- For many decades now opportunities for older workers have been declining. Today less than half of men aged 55 and over are in the labor force, a fraction that could drop to only one-third by the start of the twenty-first century. For women, whose recent entry into the paid labor force will have untold consequences, the lag is even more pronounced. Yet survey after survey has indicated that large numbers of older workers wish to continue some kind of work if the hours are flexible and the pay acceptable.
- In the family many older people are widows who live entirely alone. Those who are frail often lack social supports to maintain independent

living in their own homes. Health care facilities are inadequate and costly, and people who are disabled often lack caretakers; many live in fear of destitution.

• Older people's place in society generally has aptly been called a "roleless role."

In sum, modifications in the role structure of society have indeed lagged behind the rapid changes in the process of aging—changes in the strengths, as well as in the numbers, of older people themselves. So far these structures have largely failed to aid older people in developing or expressing their remarkable potentials.

Potentials for Intervention in the Twenty-First Century

Nevertheless, research on social structures is beginning to show that, like the aging process, they too are mutable. Here again intervention to correct structural lag is found to be possible, and the possibilities in the twenty-first century are predictably far-flung. Consider a few scattered attempts at optimizing role structures for older people that are already under way and that give clear evidence of what is possible in the future.

In *education* opportunities are being made for older people either to teach (teaching adults who cannot read, for example, or immigrants who can't speak English) or to go back to school. Nearly one thousand colleges in the United States now accept students over age 65.

In *leisure* opportunities are being made both for recreation and for more serious cultural pursuits. The Elderhostel movement is thriving worldwide, and retirement communities are increasingly located close to university facilities.

In the *household* opportunities for frail older people to remain independent are being improved through supportive community services, injuryproof housing design, and elder-friendly tools older people can use.

Throughout the *health-care system* there are increasing demands for older people in the role of care giver (rather than care receiver).

At work there is increasing provision of part-time work, job sharing, and flexible hours. Some companies have model programs for "unretirement," that is, for rehiring retired employees. There are untold opportunities for moonlighting in work that is not officially identified in official employment statistics. And there are increasingly varied and significant opportunities for many kinds of volunteer jobs.

All such structural interventions are producing new and more flexible roles, and wider options, for older people. Whether or not particular older individuals wish to remain in the economic mainstream of society or to be productive in the many unpaid and volunteer roles, one thing is clear: older people do not wish now, nor will they wish in the next century, to be disregarded, denigrated, or dependent.

Implications for All Ages

There is also another noteworthy point here. As such structural intervention develops in the next century, it will have implications for people of all ages: young and middle-aged—not *just* the old. Making room in a college classroom for older adults also affects the lives of traditional students who are younger. Any structural intervention, even though aimed at the old, will predictably have ramifications affecting how everyone grows older.

Indeed, I believe we can anticipate in practice in the twenty-first century what we once regarded as a purely visionary potential, the breakdown of the rigid age barriers that have traditionally divided societal roles into three parts: education in youth, work in middle age, and leisure in old age. Those "age-segregated" social structures may be giving way to more "age-integrated" structures—providing options for people over their lifetimes to intersperse periods of work with periods of education and leisure.

Furthermore, we can even begin to see signs of deliberate structural intervention to support this interspersing—to make it possible for people to move from school to work and later to go from work back again to school; to change careers; and to spread leisure more evenly over the life course, rather than concentrating nearly all of it in retirement. For example, some organizations are providing educational leaves from work, more portable pensions, or retraining for older adults and preparation for new occupations; others are allowing employees over their work lives to take several years of leave, to be spent—according to choice—in family care, for travel, or in continuing education.

Unintended Consequences

All these are heady portents of aging in the twenty-first century. However, one critical question remains: how can we ensure that changes and intervention undertaken today will optimize (rather than diminish) older people's opportunities for the future? This question requires farreaching vision and the knowledge base essential for intervention, because intervention can sometimes have unintended and undesired consequences. For example, encouraging everyone to engage in physical exercise, though intended for lifelong strengthening of joints and muscles, may injure them instead; tender loving care in nursing homes, though intended as emotional support for older patients, may instead reduce independence and effective functioning; and encouraging older people to work may result in abuse of older workers.

Even elaboratively designed kinds of intervention can turn out to have very little effect. For example, legislation to abolish age as a basis for mandatory retirement has failed to slow the trend toward retiring early.

On the other hand, *failure* to intervene can exacerbate rather than reduce structural lag. For example, suppose the traditional trends are simply allowed to persist. A German scholar, Martin Kohli, has recently calculated the absurd outcome: sometime in the second half of the twenty-first century society could arrive at a point when people, at the age of about 38, will move from the university directly into retirement! An absurd idea, to be sure (but I am not being absurd when I predict the end of nearly universal early retirement as we know it today).

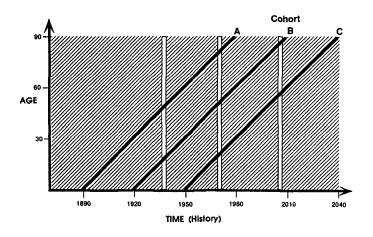
The mission for social scientists, then, is to help guide intervention by providing not only a broad vision, but also a firm scientific grounding for this vision.

A Conceptual View of Intervention

Toward this end a conceptual framework from the sociology of age is widely used for getting a handle on the future (as shown in Figure 2). It represents social space bounded by ages on the vertical axis and by dates on the horizontal axis. These dates indicate the course of history—past and future. Within this space two sets of lines crisscross each other. These refer to changes in aging and in social structures.

Aging

Consider first the diagonal lines, which refer to aging. They represent successive cohorts of people who were born in particular time periods and who are aging. As people age they move along the diagonal (see, for example, Cohort A), across time and upward through the social structure; they pass through the successive roles in family life, school grades and work



Source: M. W. Riley, A. Foner, and J. Waring, "Sociology of Age," in Neil J. Smelser (ed.), Handbook of Sociology. Newbury Park, Calif: Sage, 1988

FIGURE 2 Conceptual Framework: Aging and Social Change

careers, and retirement, and ultimately death. As they age they change biologically, psychologically, and socially, and they develop their individual strengths and capacities.

Moreover, because successive cohorts (the series of diagonals) are born at different dates and live through different segments of historical time, people in different cohorts age in different ways. Thus, a man born in 1890 (Cohort A) could scarcely have looked ahead to retirement at all, but a man born in 1950 (Cohort C, now 40 years old) can expect to spend one-quarter of his adult lifetime in retirement.

The diagonals in the figure are not purely abstract. They are used to aid understanding of "growing old in the twenty-first century"—because facts about the past lives of people now alive are already established. By tracing their lives into the future, we can use these facts to forecast how they will grow old.

Many facts are now available as guideposts to the future. In some ways future cohorts of older people will predictably be better off than their predecessors. For example, with improved nutrition, exercise, and reduced cigarette smoking in early life, they may well be less subject to heart disease when they reach later life. In other ways, however, the future cohorts of older people may be *less* advantaged than their predecessors: their lives will reflect the deteriorating economic conditions of today and the increasing proportion of young people who are failing to meet acceptable standard of academic achievement.

Two trends among women are especially provocative: an increasing proportion of young women in each successive cohort has participated in the labor force, and an increasing proportion has also experienced a divorce. We sometimes think of these as negative indications for the future. But do they perhaps mean instead that, as these young women become the older women of the future, they will have acquired more skills than their predecessors for living independently? Will their early work experience have increased the future economic security of the many who will predictably live alone in the next century?

Given this wide variety of early life experiences, one point about the older people of the future seems certain: they will be widely heterogeneous. Their needs for structural opportunities will be increasingly varied, and different types of people will call for different types of intervention.

Structural Change

In short, precisely what these older people will be like, how they will grow old, and what their needs will be will depend in part on their past lives. But in large part, they will also depend on the changing structure of our society. The perpendicular line in the figure schematize this structure and its changes. Consider a past year, such as 1980. Here the vertical line is a cross-section slice through all the diagonal lines. This slice denotes the age structure at a single moment in history. It indicates how both the people and their social roles are organized roughly in age groupings, from the youngest at the bottom to the oldest at the top. Along this slice, one can imagine how people of all ages coexist and interact in the same society. In a family, for example, members of four different generations interrelate, either by forming close ties or by engaging in conflict. Or, in another example, a nation's wealth can be distributed equitably between old and young, or—as some contend is already happening—so inequitably as to favor old people at the expense of children.

Over time, as society moves through past and future historical events and changes, one can imagine this vertical line moving—across the space from one date to the next. Over time, the age-related structures of opportunities are subject to social and cultural changes. And over time, the people in particular age strata are no longer the same people; inevitably they are continually being replaced by younger entrants from more recent cohorts with more recent life experiences.

It is from these changes that the phenomenon of structural lag has been emerging. Today older people have become more numerous, better educated, and more vigorous than their predecessors back in 1940 or 1970; but so far few structural changes in society have been made for them. They are still generally treated as a disadvantaged minority; that is, they are handicapped by the lag. It is here that intervention will be especially crucial for the twenty-first century.

Asynchrony

One last—and I think intriguing—feature of Figure 2 is the inherent paradox of timing. Aging individuals are moving along the axis of the life course, the diagonal lines. But change in the structures of society (the moving vertical line) moves along its own axis of historical time. These two sets of lines are continually crisscrossing each other. Hence, they can never be perfectly synchronized. And it is this asynchrony that accounts for the recurring mismatch between them—a mismatch that creates continuing pressures for intervention.

To return now to the critical question with which I began: How can the current lag be adjusted? How will structures change (or be changed) to foster the growing numbers, strengths, and heterogeneity of older people in the twenty-first century? The details are still dim; but our conceptual diagram opens up glimpses into the future.

My view of the future can now be quickly summarized. We can discern a vision of a future society in which older people's lives are more varied, more open to choice, more rewarding. We can glimpse aging in a possible future society where lifelong learning will replace the lockstep of traditional education; a society where ageist discrimination will no longer be a dominate force; a society where entirely new arrangements for financial security will characterize the life course; a society where retirement as we know it today will disappear and will be replaced by periods of leisure interspersed throughout life with periods of education and work; a society where the values of kinship and intimacy are matters of choice, not duty.

At this point, the vision fades, to be replaced by reality that these kinds of intervention have yet be invented. I can, however, conclude with one sure prediction, theoretically grounded and empirically demonstrable: capable older people and empty role structures cannot long coexist. Aging in the twenty-first century, in which the tension between the two must be continuously adjusted, will bear little resemblance to aging as we have known it in the twentieth century.