

Sociological Practice

Volume 11

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

Article 4

January 1993

History of Social Gerontology

Harold Cox Indiana State University

Richard Newtson Indiana State University

Follow this and additional works at: http://digitalcommons.wayne.edu/socprac



Part of the Sociology Commons

Recommended Citation

Cox, Harold and Newtson, Richard (1993) "History of Social Gerontology," Sociological Practice: Vol. 11: Iss. 1, Article 4. Available at: http://digitalcommons.wayne.edu/socprac/vol11/iss1/4

This Article is brought to you for free and open access by the Open Access Journals at DigitalCommons@WayneState. It has been accepted for inclusion in Sociological Practice by an authorized administrator of DigitalCommons@WayneState.



History of Social Gerontology

Harold Cox, Indiana State University Richard Newtson, Indiana State University

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.

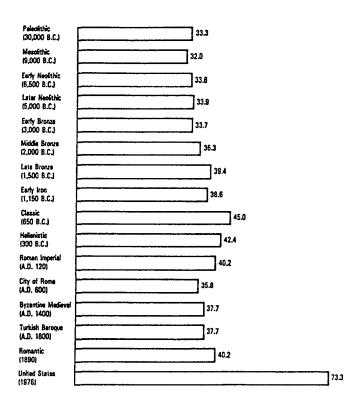
According to Thomlinson (1965), if deaths from all causes except degenerative diseases were eliminated, the potential life span of humans would be about 120 years. However, life expectancy—the age to which the average person can expect to live—has varied considerably over time. Archaeologists have studied 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 child-birth 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 consid-

erable 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.

References

Angel, J.L.

1954 Human Biology, Health and History in Greece from the First Settlement Until Now. American Philosophical Society Yearbook.

Angel, J.L.

1975 Paleoecology, Paleodemography and Health. Population, Ecology and Social Evolution, Steven Palgar (ed.). Chicago: Aldine.

Bengston, V.L., J.J. Dowd, D.H. Smith, and A. Inkels

1975 Modernization, modernitis, and perceptions of aging: A cross cultural study. *Journal of Gerontology* 30: 688-95.

Binstock, R., and E. Shannas (eds.)

1985 Handbook of Aging and the Social Sciences. New York: Van Nostrand Reinhold Co.

Breen, Leonard

1970 The discipline of gerontology. Pp. 5-24 in Adeline M. Hoffman, The Daily Needs and Interests of Old People. Springfield, IL: Charles C. Thomas Publisher.

Cook, S.F.

1947 Survivorship in aboriginal populations. *Human Biology* 19 (2): 83-89

Cook, Shelburne

1972 Aging of and in Population in Developmental Physiology and Aging, P. S. Timiras (ed.). New York: Macmillan Publishing Co.

Cox, Harold

1988 Later Life: The Realities of Aging. Englewood Cliffs, NJ: Prentice Hall.

Crandall, R. C.

1980 Gerontology: A Behavioral Science Approach. Reading, MA: Addison-Wesley.

Elliott, H.W.

1986 Our Arctic Province: Alaska and the Sea Islands. New York: Scribner's.

Fischer, David H.

1978 Growing Old in America. New York: Oxford University Press.

Freeman, Joseph T.

1960 The first fifty years of geriatrics (1909-1959). Geriatrics 15 (3): 216-18

Goffman, Erving

1959 The Presentation of Self in Everyday Life. Garden City, NY: Doubleday.

Holmberg, Allan R.

1978 Nomads of the Long Bow: The Sirono of Eastern Bolivia. Garden City, NY: Natural History Press.

Keith, Jennie

1980 The best is yet to be: toward an anthropology of age, in B. J. Seigeli, A. R. Bealls, and S.A. Tyler (eds.), *Annual Review of Anthropology*. Palo Alto, CA: Annual Reviews.

Lamb, Marion J.

1977 The Biology of Aging. New York: John Wiley.

Lansing, A.I..

1951 Some physiological aspects of aging. *Physiological Review* 31: 274-84

Russell, J.C.

1978 British Medieval Population. Albuquerque: University of New Mexico Press.

Schwartz, Arthur N., and James A. Peterson

1979 Introduction to Gerontology. New York, NY: Holt, Rinehart & Winston.

Strehler, B. L.

1977 Time, Cells and Aging. New York: Academic Press.

Thomlinson, R.

1965 Population Dynamics: Causes and Consequences of World Demographic Change. New York: Random House.

Tibbits, Clark (ed.)

1960 Handbook of Social Gerontology: Societal Aspects of Aging. Chicago, IL: University of Chicago Press.

Vedder, C.

1963 Gerontology: A Book of Readings. Springfield, IL: Charles C. Thomas.

Watson, Wilber H., and Robert S. Maxwell (eds.)

1977 Human Aging and Dying: A Study in Sociocultural Gerontology New York: St. Martin's Press.