AWARENESS OF FINITUDE AND DISENGAGEMENT IN OLD AGE RESIDENTIAL ENVIRONMENTS

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PREFACE

The original intent of this study had been to interview terminally ill patients and a control group of non-terminal patients within old age institutions. Sources of data for such a study were hard to find for several reasons: first, most patients by the time they are diagnosed as terminal have degenerated physically and mentally to the point that they cannot be interviewed; second, the number of available terminal patients in a given institution is so small that numerous institutions would have had to be used to reach an adequate sample size; finally, there seemed to be special concern on the part of administrators regarding invasion of privacy of terminal patients. Thus the focus of the study shifted to an examination of the elderly person's perception of his time remaining before death--regardless of whether he had any current health problems. The study examined whether the aging person's awareness of approaching death affected his level of activity and morale. It analyzed interview data from 120 elderly persons residing in a variety of residential settings for the aged. It provided a test of the disengagement theory, which predicted that with aging comes a gradual but inevitable decline in activity level.

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CHAPTER I

INTRODUCTION

Demographic Change

Growing Numbers of Elderly

The study of aging has been given urgency by the dramatic increase in the elderly population within this century (Loether, 1975). Since 1900 the number of persons age 65 or older in the United States has increased more than twice as rapidly as the total population. While the overall population has roughly tripled (from 76 million in 1900 to 212 million in 1974), the population 65 or older has grown from 3 million to 21 million--a sevenfold increase (U.S. Bureau of the Census, 1975). Thus there has been an increase not only in numbers of elderly but also in the proportion of the total population age 65 or older (see Table I).

The current increase in the elderly population seems even more remarkable when we consider that throughout most of human history old people were rare. Up to the beginning of the nineteenth century those 65 and above rarely constituted over one percent of the population (Cowgill, 1970). The demographic transition took place as a result of the social and technological changes brought about by the Industrial Revolution (Hitt, 1956). Improved standards of living and public health in industrialized countries brought a lowered death rate. This brought about an increase in population (although not an increase in the propor-

tion of elderly, for most of the improvement was in infant and child mortality). In order to slow overpopulation the industrialized nations moved to lower birth rates, which brought about an increased proportion of elderly (Cowgill, 1970). Europe entered the industrial cycle earlier than the United States and thus has experienced even greater aging of its population (Hitt, 1956). Those 65 or older comprise 12 percent of the population in Europe (World Population Data Sheet, 1977). Yet even there the aging of nations has been primarily a twentieth century phenomenon. The only exceptions are France and Sweden, where the trend began by 1850 (Hauser and Vargas, 1960).

TABLE I

PERCENT OF TOTAL POPULATION AGE 65 AND OVER, U.S.: 1900-1975

1900	1930	1960	1970	1975
4.1	5.4	9.2	9.8	10.5

Source: U.S. Bureau of the Census, Current Population Reports: Demographic Aspects of Aging and the Older Population in the United States, Series P-23, No. 59 (Washington: U.S. Government Printing Office, 1976).

In the Lesser Developed Countries there are high birth rates (two to three times as high as in the United States and Europe) and low life expectancy at birth (10 to 25 years less than the United States and Europe). These factors combine to produce a low proportion of elderly. Africa has only three percent of its population at least 65 years of

age; Asia and Latin America have four percent (World Population Data Sheet, 1977).

Migration

The effects of international immigration on aging have been relatively unimportant in comparison with the impact of declining fertility and mortality (Hauser and Vargas, 1960). However, since most immigrants are young adults, immigration tends to increase the proportion of younger people in the receiving country while increasing the proportion of elderly in the country losing emigrants. European countries have experienced extensive outmigration for many decades (Cowgill, 1970).

Although migration has not been highly important in shaping aging patterns among nations, age-selective migration has been important in determining the age composition within the United States. The impact of migration on age distribution is affected not only by directional trends but also by differential mobility rates for differing groups in the family life cycle. The likelihood of moving is far greater for families with a younger head of household than those with an older head (Vance, 1954; Butler, Sabagh and Van Arsdol, 1964; Simmons, 1968). Marital status is also highly important. Almost everyone (81 percent) moves immediately after marriage. Residential mobility remains high for the first few years of marriage, declining by the time the family has school age children and declining still further for the older married. The breakup of marriage due to the death of a spouse leads to increased mobility for the survivor (Speare, 1970). Mobility rates for older persons differ according to socioeconomic class, with middle class elderly being more mobile than elderly working class people (Simmons, 1968).

Spatial Patterns

The United States Bureau of the Census has divided the nation into four regions further subdivided into 12 divisions. Among the census regions, the Northeast has the highest proportion of elderly, 11.2 percent according to 1975 figures. The North Central region is next with 10.6 percent, followed by the South with 10.5 percent. The West has the smallest proportion of elderly, 9.5 percent. Of the 12 divisions, the West North Central has the highest proportion of elderly with 12.2 percent age 65 or over. This is the only division in which all the states are above the national average in elderly population. This division consists of the states of Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas (U.S. Bureau of the Census, 1976). These states have been losing population through the out-migration of young families over the past several decades (Cowgill, 1965). Oklahoma joins Arkansas, Iowa, Missouri, South Dakota, Nebraska, Kansas, Rhode Island and Florida as the only nine states with elderly populations over 12 percent. Florida, with its heavy in-migration of retirees, has the highest proportion of elderly with 16.1 percent (U.S. Bureau of the Census, 1976).

The proportion of elderly persons varies a great deal by size of community. The highest percentage of elderly is found in villages of 1000 to 2500, with the next highest percentage in towns of 2500 to 10,000. Within urbanized areas the elderly are concentrated more in the central cities than in the suburban fringe (see Table II). The greater number of elderly in the central cities than in the suburban fringe lends support to the Burgess hypothesis of concentric zones with a larger pro-

portion of elderly in the older areas closer to the central business district and more young families farther out (Johnston, 1971). The proportions of elderly within communities of various size varies by region (U.S. Bureau of the Census, 1973).

TABLE II

PERCENT OF POPULATION AGE 65 AND OVER, FOR URBAN AND RURAL RESIDENCE, U.S., 1970

URBAN				RURAL	
Urbanized Areas		Other Places of			
Central Cities	Suburban Fringe	10,000 or more	2500-10,000	Places of 1000-2500	Other Rural
10.7	7.8	10.8	12.2	13.6	9.6

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I: Characteristics of the Population, Pt. 1: United States Summary (Washington: U.S. Government Printing Office, 1973).

In summary it may be seen that in the United States and other industrialized nations there has been a great increase in both numbers and proportions of elderly persons within this century. The proportions vary according to region, state and community size. Yet the figures are consistently high both in relation to the Lesser Developed Countries and to our own demographic profile of 1900.

Theories in the Study of Aging

The growing numbers and proportion of elderly persons focused awareness on the special problems faced by the aging. As Tibbitts (1960, p. 5)

pointed out:

> Older people did become visible very rapidly, doubling in number between 1900 and 1930 and again between 1930 and 1950. The sheer increase in numbers compelled attention to the rising problems of financial dependency, employment, and housing and living arrangements and the alarming increase in the prevalence of long-term illness and disability.

The new field of social gerontology emerged in response to the growing concern for the problems of aging. Social gerontology is one branch of the larger field of gerontology that also includes biological and psychological research. Social gerontology began to take shape in the 1940's. In 1943, Dr. E. W. Burgess, who has been called the "father of social gerontology" (Rose, 1964, p. 46), secured the establishment of a Committee on Social Adjustment in Old Age within the Social Science Research Council (Tibbitts, 1960). The year 1945 saw the appearance of The Role of the Aged in Primitive Societies by Leo Simmons. The Journal of Gerontology began publication in 1946. Burgess, Havighurst and their colleagues at the University of Chicago initiated their studies on adjustment in old age by the late 1940's (Cavan et al., 1949). Several universities established institutes or councils on gerontology in the 1950's. The first attempt to systematize research findings in social gerontology came in 1960 (Tibbets, 1960; Burgess, 1960). The Gerontologist was first published in 1961; the same year as the first White House Conference on Aging. The Older Americans Act of 1965 established the Administration on Aging to support research and training in the field of aging, serve as a clearinghouse of information on problems of aging and study ways to make effective use of new and existing resources in meeting the needs of the elderly (President's Council on Aging, 1968). The Research on Aging Act of 1974 established the National Institute on Aging within the National Institutes of Health to conduct "biomedical, social,

and behavioral research and training relating to the aging process, the diseases and other special problems and needs of the aged" (Fowler, 1974, p. 491).

One problem experienced by a new field of research is the lack of a consistent theoretical foundation. Many of the concepts first used in social gerontology, such as "loss of roles," were adopted from symbolic interaction theory in social psychology (Rose, 1964, p. 46). However, as Cumming and Henry (1961, p. 13) noted, "In science there is simply no way of disregarding theory. If we are not consciously using theory, we are inevitably employing instead groups of implicit assumptions." This is true, argued Cumming and Henry, because "we must have anchor points for our thinking and guidelines to show us what to look for in our data" (p. 16). Kuhn (1962) has pointed out the importance of a theoretical model or paradigm to guide empirical research. Without such a model of what the empirical world is like, fact gathering studies are largely random activities. A paradigm provides guidelines of what findings to expect and where to look for them. Goode and Hatt (1952, p. 71) noted that science "can be cumulative only by building on an existing body of fact and theory." Possession of a paradigm to guide research may be seen as a criterion for a field's becoming a science (Kuhn, 1962). Since its beginning social gerontology has been slowly developing a "coherent and meaningful" theory of aging (Cowgill, 1972, p. 1). A number of theories have been proposed--some new, others applications of theories in use in other fields. We will look at the five theories presented in a current book of readings in social gerontology (Kart and Manard, 1976). Role theory, subculture theory, age stratification theory and activity theory will be introduced briefly. Disengagement theory, the theoretical model

used as a guide in this dissertation, will be discussed in more detail.

Role Theory

Role theory was the first theoretical model used in the study of aging (Cottrell, 1942). Burgess (1960, p. 20) referred to aging as a "roleless role." The role theory approach suggests that the changes of aging fall into two basic categories: giving up the social roles of middle age and adopting new roles typical of the later years. It is theorized that these role changes lead to maladjustment (Phillips, 1976). Blau (1973) found role exit to be significantly related to demoralization. She looked at both retirement and widowhood, finding both related to low morale but retirement more strongly demoralizing. Rosow (1967, p. 86) saw the loss of major roles as "the strongest single alienating force in old age." Rosow (1974, p. 11) suggested that "role loss and role ambiguity are generally quite demoralizing" inasmuch as they deprive people of social identity. He noted that old age is a time when there are almost no normative expectations to provide structure for activities.

Subculture Theory

Arnold Rose (1965, p. 4) suggested that older Americans may be "changing from a category into a group." (This central proposition of subculture theory was denied by Streib, 1965). Rose contented that the elderly are becoming a group because aging persons are coming to "interact with each other significantly more than they interact with persons in other categories" (p. 3). According to Rose, the interaction among aging persons is developing for two reasons. The elderly feel an attraction for other elderly because of common interests and needs and hence are

segregating themselves into distinct groups as in Senior Citizen Centers and retirement communities. Then too the elderly are being excluded from some activities, such as work and leadership roles, by the rest of society. Segregation from larger society leads to interaction among those excluded; interaction is the sine qua non of a group. "Every group," wrote Rose (p. 4) "has a subculture--a set of meanings and values which is distinctive to that group--although not every group is necessarily conscious of its distinctiveness or of the fact that it is a group."

Two elements tend to lessen the impact of the aging subculture on its members. One is the fact that any age-graded subculture (such as the teen-age subculture or elderly subculture) is limited compared to a subculture in which the members live all or most of their lives (such as that of an ethnic group, socioeconomic class or geographical region). The time it takes to socialize a person into the age-graded subculture "and the limited period for which it is expected to be followed by an individual are factors which prevent the subculture from becoming highly elaborated or enveloping most of its followers completely" (Rose, 1965, p. 6). Similarly, the influence of the aging subculture is reduced by contacts of the elderly with the larger society; such contacts are promoted by continuing interaction with younger family members and other younger persons, by mass media exposure and by "an attitude of active resistance toward aging" (Rose, 1965, p. 8).

A subculture of aging is particularly likely to occur in age-concentrated living environments due to the combined effects of physical proximity and social homogeneity (Gubrium, 1973). A subculture of aging has been reported in a number of age-concentrated environments (Hochschild, 1976; Hoyt, 1976; Marshall, 1976; Winiecke, 1976).

Age Stratification

A concept related to the subculture theory is the view that aging can be understood as a variety of social stratification (Riley, 1976). Just as a person's position in a socioeconomic class can influence his attitudes and behavior, his position in the age structure of society may also shape his social roles. Similarly age may be related to social rights and privileges. The impact of downward social mobility may be felt as the person moves into the category of senior citizen. The study of differences in age cohorts may reveal important information (Cain, 1967, 1968; Bengtson, 1975; Riley, 1976).

Activity Theory

The activity theory may be seen as the "common sense" or lay theory of aging (Bengtson, 1973, p. 42). This is the theory most often used as a guide in Senior Citizen Centers and institutional activity programs (Atchley, 1972). Cavan et al. (1949, p. 21) suggested that successful aging involves keeping busy in "some form of work, or useful work-like activity, as distinguished from the more recreational activity of a hobby." Another early contribution was made by Havighurst and Albrecht (1953), who noted the importance of social role participation to positive adjustment to old age. Kutner et al. (1956, p. 104) contended that "not any activity but only activities that provide status, achievement and recognition can lift morale" [italics added by Kutner et al.]. Activity theory assumes that activity level is positively associated with life satisfaction. It suggests that when roles are given up, as in retirement, new roles must be added if lowered morale is to be avoided. The activity orientation has usually been a set of assumptions rather than "an

explicit and testable theory" (Bengtson, 1973, p. 43). However, it was formally stated by Lemon, Bengtson and Peterson (1972). Although this study found no correlation between activity level and morale, numerous studies have reported a correlation (Palmore, 1968, 1969; Maddox, 1970a; Neugarten, 1972; Graney, 1975; Knapp, 1977).

Disengagement Theory

Talcott Parsons, in his forward to Growing Old: The Process of Disengagement by Cumming and Henry (1961, p. v), called the book "the most serious attempt so far to put forward a general theoretical interpretation of the social and psychological nature of the aging process in the American society." He predicted that "this study will serve as the most important focus of discussion of the problems on this level for some time." His prediction has been fulfilled. As Streib and Schneider (1971, p. 172) noted, "The seminal quality of the theory is evidenced by the number of empirical studies which it has stimulated." The same authors suggested:

> Cumming and Henry offered a new paradigm which attracted investigators away from existing conceptual systems and at the same time was sufficiently flexible and heuristic that a new group of practitioners found many issues to resolve. Disengagement theory opened new vistas and in a sense marked a turning point in studies of the middle aged and the old (p. v).

When the disengagement hypothesis was first presented as a "tentative theory" by Cumming and Associates (Cumming et al., 1960, p. 23), it was offered as an alternative to the view that society unilaterally withdraws from the aging person, leaving him stranded. The authors suggested that the individual cooperates in a mutual process of disengagement. The authors defined disengagement as a decrease in the rate and variety of interaction and a contraction of the social life space. They asserted

that the "disengaged state, as we have defined it, appears to be an almost universal end point" and "appears to be irreversible" (p. 32). Cumming and associates made no statement as to the morale of the older group, but suggested their findings to be reported elsewhere showed no loss of morale associated with age or retirement.

The major presentation of the disengagement theory was made by Elaine Cumming and William E. Henry (1961). They presented their theory as a contrast to an "implicity theory of aging" which seemed to assume that "successful aging consists in being as much like a middle aged person as possible" (pp. 16-17). They contended that old age is a distinct phase of life with different maturational goals. "Aging," they maintained, "is an inevitable mutual withdrawal of disengagement, resulting in decreased interaction between the aging person and others in the social systems he belongs to" (p. 14). The evidence presented by Cumming and Henry grew out of the Kansas City Study of Adult Life, a longitudinal study of a panel composed of a stratified random sample of persons 50 to 70 years of age, supplemented by an availability sample of persons 70 to 90. Findings showed a decline with age on several interaction indices. Role count was an inventory of the number of relationships in which the respondent was currently engaged. This showed significant decline with age, the first noticeable change occurring between ages 64 and 65. Interaction index was a rating based on the amount of time each day spent in "normatively governed interaction." The authors assumed, "It is in interaction that hints and cues and guides that govern and control interaction are exchanged." They suggested, "A lowering of interaction results in a loosening of the web of normative control" (p. 215). Findings showed that increasing age brought a steady decrease in percentage of

people with high daily interaction. The social lifespace measure was an actual count of the number of interactions in which the individual engaged during a given period. Once again there was a steady decrease in proportion of high scores with advancing age. Thus social contacts diminished with age with one exception: contacts with close kin did not decrease unless the kin were no longer available.

Cumming and Henry also suggested that attitudes change as disengagement takes place. They hypothesized that older persons would be less likely to seek approval and love and instead would be seeking responsiveness. Their position was partially supported by the data; but this must be interpreted with caution, for 22 percent of those questioned failed to answer this question. The authors expected that reduced interaction would produce less normative control and therefore more idiosyncratic behavior. Personality data provided by responses to Thematic Apperception Test stories indicated increased self-preoccupation and decreased response to normative control with advancing age. In regard to morale, Cumming and Henry reported the panel members (age 50 to 70) had the highest percentage with low morale, that those in their seventies were next and that those in their eighties had the least incidence of low morale. Cumming and Henry suggested this was because the very old have adjusted to the disengaged state. However, it must be noted that the sample of 70 and 80 year olds was not random and may well have been biased. Cumming and Henry noted, "We found ourselves with a markedly religious group because two retired clergymen led us to their friends" (p. 204).

A chapter entitled, "A Formal Statement of the Disengagement Theory," gave a number of postulates and corollaries. It was suggested

that a universal expectation of death and probable decline in ability lead to a mutual severing of ties between the aging person and society. Once begun this is "a circular, or self-perpetuating process" (p. 211). The process differs for men and women; it may be initiated by either the individual or society. If society forces the individual to disengage when he wants to remain engaged, lowered morale may result. It was suggested that the loss of central roles (work for men, marriage and family for women) drastically reduces life space and "will result in crisis and loss of morale unless different roles . . . are available" (p. 215). Readiness for disengagement was suggested to result from the individual becoming "sharply aware of the shortness of life and the scarcity of time remaining to him" (p. 216) as well as from decreased life space and ego energy. The authors concluded that "disengagement is a culture-free concept, but the form it takes will always be culture bound" (p. 218).

Cumming (1963, p. 377) suggested that "engagement is essentially the interpenetration of the person with the society to which he belongs." She theorized that there are different types of engagement. It is possible to be broadly engaged--engaged in many aspects of society but not necessarily influential areas. Or one may be deeply engaged--holding policy making roles. Or he may be symbolically engaged--epitomizing some value of the society. One person may be engaged in all three ways, as a president or prime minister. Cumming noted that disengagement theory had concerned itself primarily with "the modal case which, in America, begins with the departure of children from families, and then, retirement for men or widowhood for women" (p. 378). She suggested other areas of study: "such non-modal cases as widowhood before marriage of the last child or work protracted past the modal age of retirement" (p. 378). An-

ticipating a number of later writers, Cumming suggested that individual temperament has a bearing on the pattern of aging. She proposed two basic modes of relating to the environment. An "impinger" attempts to influence others to react to him as he wishes. A "selector" waits for others to confirm his assumptions about himself, (p. 379). Cumming suggested an impinger would remain active as long as possible, then be frustrated when this were no longer possible. A selector would be more content with disengagement.

Cumming stated a belief that disengagement begins sometime during middle age, probably due to "an urgent new perception of the inevitability of death" (p. 381). It may begin in a different way with the middle aged person reaching "a point where losses, both personal and public, begin to outrun his ability to replace them" (p. 382). One aspect of the disengagement process is a change in rewards sought. Meaning or expression replaces achievement. Nonetheless, this involves a net loss because achievement is more highly valued in the American culture. Who has the harder time adjusting to disengagement, men or women? Cumming suggested men have a harder transition at retirement than women do at widowhood in that their instrumental role is no longer appropriate while the women's integrative role continues with little change. Cumming cited as support for this the fact that at the age of disengagement, 67-75, the suicide rate goes up for men but down for women (Cumming, 1963).

Henry (1964) described engagement-disengagement as a developmental process. Engagement was viewed as commitment to people and objects outside of oneself. It was said to gradually increase from young adulthood to a peak in middle age. While focusing on the world outside himself, the highly engaged person is less aware of his own inner states. Henry

suggested that disengagement occurs as the person reacts to declining energy by reducing the number or intensity of his involvements. Simultaneously he begins to focus more on his own inner states. Henry saw value in the disengagement phase of the process. He noted that the "wisdom and perspective, so commonly attributed to the elders, require a base in leisure." The leisure he had in mind was not recreational activity but rather: "freedom or opportunity afforded by exemption from occupation or business; time at one's command, free from engagement" (Henry, 1964, p. 415).

Central Idea of Dissertation

Cumming and Henry (1961, p. 14) proposed disengagement as a "universal" and "inevitable" pattern of aging. The extensive literature generated by their theory (see Chapter II) has demonstrated that disengagement is not a universal pattern. The level of disengagement has been found to vary a great deal with such factors as personal characteristics, social setting and circumstances of disengagement. Current research is needed to specify the circumstances when disengagement is most likely to occur as well as those factors that make it adaptive or maladaptive in terms of morale.

One factor which was central to the theory as enunciated by Cumming and Henry is the aging person's realization of his impending death. Yet this factor has been largely ignored in the literature (Marshall, 1975). Most studies simply attempt to correlate age and activity level. It seems important to measure the aging person's perception of the nearness of his death. Awareness of finitude, defined as the amount of time the aging person believes he has left before death, has been measured in only

a few studies (Chellam, 1964; Munnichs, 1966; Marshall, 1973, 1974, 1975). If awareness of finitude is an important cause of disengagement, it should be more useful than chronological age in predicting the level of disengagement. The use of awareness of finitude as an intervening variable between age and activity level may help resolve some of the contradictory findings in the literature (Marshall, 1975). This study will explore the usefulness of awareness of finitude in predicting both level of disengagement and the relationship of disengagement to morale.

The circumstances of disengagement, particularly whether disengagement is chosen or forced on the aging person, have been found to influence the relationship of disengagement and morale (see Chapter II). One important circumstance of disengagement is whether it is forced due to physical restrictions or chosen when not a physical necessity. This topic has been largely ignored in the literature. Cumming and Henry (1961) specifically excluded sick people from their sample. This study will include an evaluation of the subjects' activity limitation. It will suggest that when disengagement is forced due to physical necessity that it will be associated with lowered morale. On the other hand it will predict that when disengagement is chosen by the aging person it will not be associated with lowered morale.

The setting of this study will be residential institutions with high concentrations of aging persons: nursing homes, rest homes, and retirement villages. Cumming ahd Henry (1961) excluded institutional residents from their study. Most of the literature relating to residential institutions for the elderly is based on the activity theory (see Chapter II). This literature assumes that residents must be kept active if they are to have optimal health and morale. Yet so many in-

stitutional residents have been found to be disengaged that institutional care has been called "the ultimate in disengagement" (Lissitz, 1970, p. 299). It seems highly important to discover the reasons for this pattern and its results in terms of morale.

The central proposition of this study may be stated as follows: among elderly institutional residents, those with high awareness of finitude are more likely than those with low awareness of finitude to choose and to find satisfaction in a disengaged life style.

CHAPTER II

REVIEW OF THE LITERATURE

A Disengagement Model

Pressures Toward Disengagement

Cumming and Henry (1961) suggested that disengagement may be initiated either by society (as in compulsory retirement) or by the individual. Several different factors may be noted which push the aging individual to disengage. Among these are psychological change, physical decline, social change and role loss (see Figure 1).

Psychological Change. Psychological change includes the losses in memory and learning ability associated with aging. There have been differing findings regarding the relationship of mental acuity to age. Test results in the areas of sensory perception, motor control, learning and intelligence show general decline with age (Cain, 1964; Palmore, 1977). Yet longitudinal studies show much less decline with age than do cross-sectional studies; sometimes they show no decline at all. There seems to be more decline in speed of response than in accuracy (Palmore, 1969; Eisdorfer, 1969). Boredom and lack of motivation on the part of older persons in test situations may magnify age-related differences (Kalish, 1975). Furry and Baltes (1973) suggested that situational factors such as fatigue hurt the test performance of elderly persons. Another type

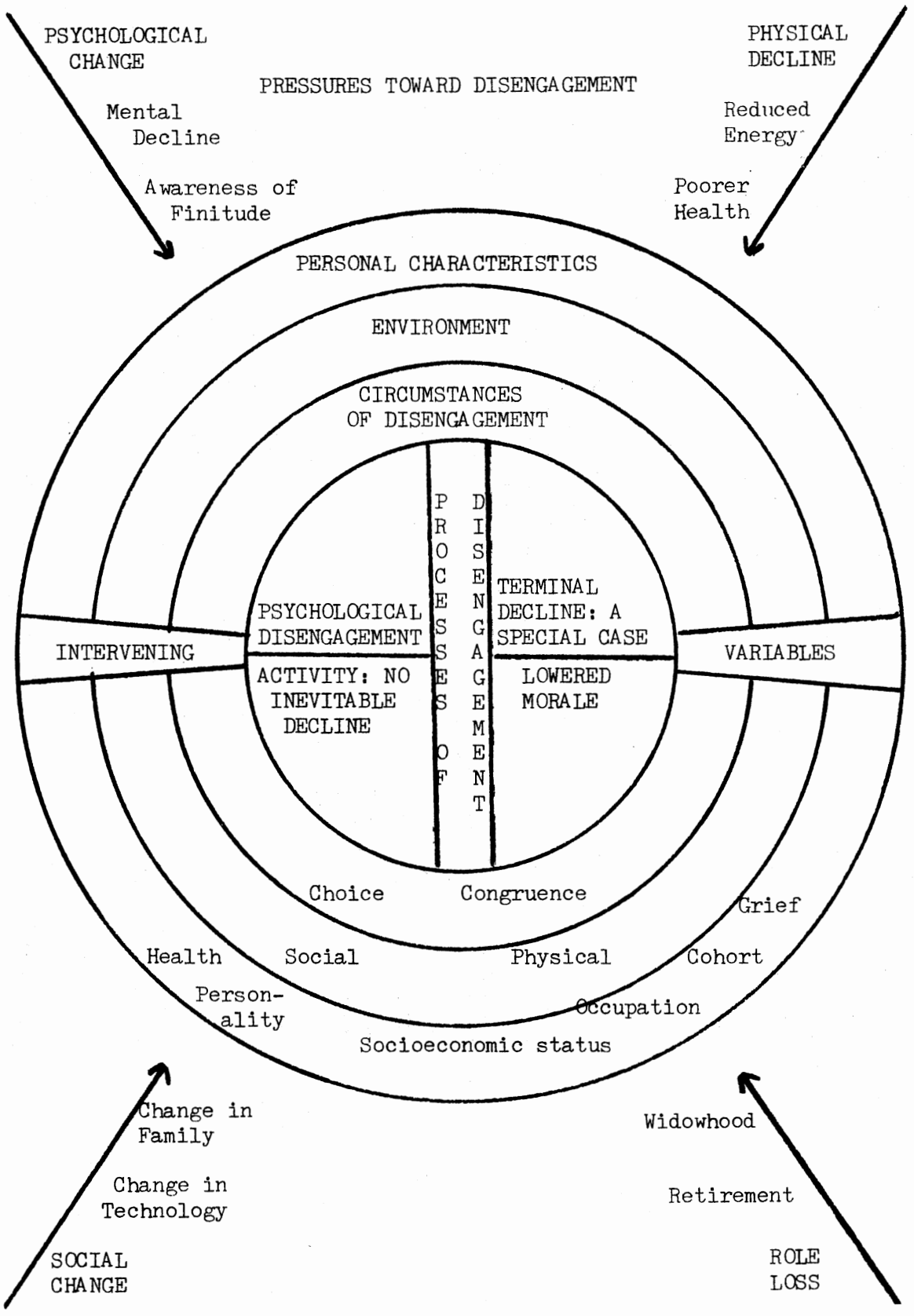

Figure 1. A Disengagement Model

of psychological change is theorized to come from the aging person's awareness of his approaching death. This was the primary reason for disengagement according to Cumming and Henry (1961). The limited future before the elderly person encourages him to focus on those things most important to him and to withdraw from less central concerns (Cumming, 1963; Kalish, 1972, 1975). Cumming (1964, p. 7) stated: "disengagement probably begins sometime during middle life when certain changes of perception occur, of which the most important is probably an urgent new perception of the inevitability of death."

Physical Decline. An important reason for disengagement in many cases is declining physical ability (Kalish, 1972). The decline in ability to exercise and work has been called "one of the most obvious manifestations of aging" (Shock, 1962, p. 100). Another author referred to changes in the structure and function of the body as "the most characteristic universal feature of old age" (Streib, 1956, p. 274). Woodruff (1973) suggested a continual decline in physiological efficiency of one percent per year from age 30 to age 80. Physical impairments to such faculties as vision and hearing are quite prevalent among the elderly. Visual problems occur twice as frequently among the elderly as among the middle aged. Among those 65 and over moderate to severe visual defects affect 52.2 percent of the men and 71.7 percent of the women. The rate of hearing impairment increases dramatically with age. Those 65 to 79 years of age are 40 times as likely to experience hearing difficulty as those 18 to 24 years old (Loether, 1975). The illnesses of elderly persons differ from those of the younger population in the type of conditions most likely to be present. The number of acute illnesses per year declines with age, while the incidence of chronic conditions increases

with age. The average child under five years of age has four acute conditions per year. This declines with age to a level of about one and a half acute conditions per year for those 65 or older. On the other hand, the number suffering from at least one chronic illness increases from less than one person in five for those under 15 to two in five of those between 15 and 44, three in five of those 45 to 64 and over four out of every five persons 65 or older (Riley and Foner, 1968). The proportion of persons with activity limitations due to chronic conditions increases greatly with age (see Table III).

TABLE III

PERCENT WITH LIMITATION IN MAJOR ACTIVITY DUE TO CHRONIC CONDITIONS, BY AGE: 1974

	Under 45	45-64	65 and Over
Male	3.9	19.8	44.8
Female	4.0	18.1	35.3

Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1976 (97th ed.; Washington: U.S. Government Printing Office, 1976).

Social Change. The participation of elderly persons in leadership roles is much more prevalent in traditional societies than in modernized nations. Disengagement, wrote Cowgill and Holmes (1972, p. 323) "is not characteristic of the aged in primitive or agrarian societies, but an increasing tendency toward disengagement appears to accompany moderniza-

tion." Rapid change in technology renders the skills of the aging person obsolete even as social change makes his traditional wisdom less valuable (Wheelwright, 1959; Cowgill and Holmes, 1972). In the words of Kalish (1972),

> . . . the changing social structure involving family roles, job roles, the power structure, and so forth forces the aging person to restructure his life, perhaps ending up with fewer roles and interactions and with less emotional commitment than previously (p. 87).

Residential stability and maintenance of a strong extended family pattern gives the elders the maximum influence in family leadership (Cowgill and Holmes, 1972). The decrease in importance of the extended family that has accompanied industrialization has left the elderly more isolated (Rosow, 1974). "Modern societies," wrote Cowgill and Holmes (1972, p. 323), "have high mobility, both geographic and social and both kinds tend to put distance between children and parents, to weaken bonds of extended family, and to undermine the authority of the elders."

Role Loss. Disengagement may result from external forces which strip valued roles from the elderly person. Rosow (1974) contended,

> Major institutional forces . . . are at work which systematically undermine the position of older people in American society, depreciate their status, limit their participation and channel them from the mainstream of American life (p. 2).

"The older person," wrote Rose (1965, p. 12) "is pushed out of his occupations, out of the formal and informal associations connected with occupation, and even out of leadership roles in many kinds of nonoccupational associations." The two most significant role losses affecting the elderly are retirement and widowhood (Cumming, 1963).

In primitive as well as modern societies "there is a general tendency in old age to shift toward more sedentary, more advisory and super-

visory activities (Cowgill, 1972, p. 4). However, there is an important difference:

> In the less modern societies, the new role, albeit less strenuous, is still important and honorific, whereas retirement in modern societies essentially means . . . that . . . so far as the society at large is concerned there is no role at all (Cowgill and Holmes, 1972, pp. 306-7).

Retirement in the latter sense is "a unique and modern phenomenon" (Streib and Schneider, 1971, p. v) whose development depended on several factors: 1) a number of people living long enough to retire, 2) an economy productive enough to allow leisure for older workers and 3) pensions or other financial support for retired persons (Streib and Schneider, 1971). In the United States retirement has come to be the modal pattern. The proportion of elderly men in the work force has declined steadily over the past quarter century. For women an increasing labor force participation at younger ages has held the proportion working past age 65 fairly steady (see Table IV).

While the loss of the instrumental role through retirement is most crucial to the man, the loss of the socio-emotional role through widowhood is most significant to the woman (Cumming, 1963). The death rate for males is higher than that for females, leaving a great many more women than men widowed. Forty-three percent of the women aged 65 to 74 are widowed compared to only ten percent of the men. Of those 75 or older, seven women in every ten are widowed compared to three men in every ten. Often widowhood is followed by isolation, for the widow is "usually less able to continue the acquaintanceships, attend the social functions and do as much visiting without the spouse" (Kutner et al., 1956, p. 109). Many countries have institutionalized roles for widows. An example of this is levirate, the custom of remarriage of a widow to a kinsman of her deceased husband. There is no such prescribed role for

the widow in the United States (Lopata, 1972; Cowgill and Holmes, 1972).

TABLE IV

WORKER PROPORTIONS FOR THE POPULATION 55 YEARS OLD AND OVER, BY AGE AND SEX, U.S.: 1950-1975

Age and Sex	1950	1955	1960	1965	1970	1975
Male						
55-64	86.9	87.9	86.8	84.7	83.0	75.8
65 and Over	45.8	36.9	33.1	27.9	26.8	21.7
Female						
55-64	27.0	32.5	37.2	41.1	43.0	41.0
65 and Over	9.7	10.6	10.8	10.0	9.7	8.3

Source: U.S. Bureau of the Census, Current Population Studies: Demographic Aspects of Aging and the Older Population in the United States, Series P-23, No. 59 (Washington: U.S. Government Printing Office, 1976).

Intervening Variables

One reason why many of the findings of disengagement research have been contradictory has been a failure to specify the numerous variables that effect the forces of aging as they apply to a particular individual (Maddox and Eisdorfer, 1962; Adams, 1971). The forces pushing for disengagement must pass through three filters that determine their shape and impact in a particular case. These are personal characteristics, environment and the circumstances of disengagement.

Personal Characteristics. Within the area of personal characteristics, the first to be lifted up as significant was personality type. Cumming (1963, p. 379) proposed a "temperamental variable, basically biological" centering on style of adaptation. Birren (1964) pointed to several factors influencing whether activity or disengagement is most important to a given person:

> . . . amount of psychological or affective involvement with other persons . . . variety of social roles engaged in . . . mental abilities in solving problems and physical stamina for initiating and enduring sustained activity (p. 238).

Some of the most influential authors in regard to the disengagement theory have been Robert J. Havighurst, Bernice L. Neugarten and Sheldon S. Tobin, associates of Cumming and Henry in the Kansas City Study of Adult Life. These authors reported that their findings from that study could not be sufficiently accounted for by either activity or disengagement theory. They reported that as people move beyond age 70 they "regret the drop in role activity that occurs in their lives" but that most accept this drop as an inevitable accompaniment of growing old (Havighurst, Neugarten and Tobin, 1964, p. 425). They suggested personality differences to be the key to whether a person accepted and was satisfied with the changes in his life. Havighurst, Neugarten and Tobin (1968, p. 172) contended,

> The aging individual may or may not disengage from the pattern of role activities that characterized him in middle age. It is highly doubtful, however, that he ever . . . disengages from the personality pattern that has so long been the self.

Neugarten, Havighurst and Tobin (1968, p. 177) described personality as "the pivotal dimension . . . in predicting relationships between level of social role activity and life satisfaction." They found that people age "according to a pattern that has long history and maintains itself, with

adaptation, to the end of life." Havighurst (1968b) maintained that personality organization and coping style were decisive in the individual's adjustment to aging. Neugarten (1972, p. 12) concluded, "Within broad limits--given no major biological accidents or major social upheavals--patterns of aging are predictable from knowing individuals in middle age."

Health decline is not constant with aging but varies greatly with individuals. Health has been found to be a crucial factor in determining activity patterns. Tallmer and Kutner (1969, p. 73) found health to have "a much more powerful effect on engagement than does any other factor including age." Johnson (1971, p. 95n) found "good physical health is a far better guide to activity levels . . . than chronological age." The Duke longitudinal study found active persons were more likely to be rated healthy on both objective and subjective measures (Maddox and Eisdorfer, 1962). The relationship between health and activity was also found in comparative data from three industrial countries (Shanas et al., 1968). Streib and Schneider (1971) found that poor health leads to retirement. Riley and Foner (1968) found that taking vacations and distances traveled are related to the state of health. Maddox (1970a) reported that good health increased the probability of high life satisfaction even when activity was low. Palmore and Luikart (1972) found self-rated health to be most strongly related to life satisfaction, more important than any activity category or demographic factor. Wheelwright (1959) suggested that in times of poor health it is natural to become introverted and lose interest in external events. Jeffers and Nichols (1970) found that old people with no disability have higher activity scores than those with mild to severe disability.

Activity is also related to socioeconomic status (Gubrium, 1973). People from higher socioeconomic backgrounds tend to be more active and less isolated (Kutner et al., 1956; Maddox and Eisdorfer, 1962). Rosow (1967) found middle calss elderly were more likely than working class persons to report having "good friends." Kutner et al. (1956) found elderly from higher income strata more likely to have friends and to visit them more frequently than those from lower income levels. Kutner et al. (1956) noted that within the high status group, morale remained high regardless of frequency of visiting. Edwards and Klemmack (1973) found socioeconomic status to be the strongest predictor of life satisfaction among 22 variables studied. The areas studied included personal and social background variables, formal participation, informal familial participation, informal nonfamilial participation and health. Socioeconomic status is also important in specifying the types of activities people enjoy, Johnson (1971, p. 141).

> Reading, concert-going, golf, tennis, and travel abroad, as well as participation in voluntary associations, tend to be upper- and upper middle-class pursuits, whereas attending ball games, hunting and fishing, bowling, and camping tend to be lower middle- and working-class leisure activities.

Occupation, in addition to helping determine socioeconomic status, may also have an independent effect on level and type of activity. An important cross-national study of the impact of occupation on retirement activity patterns focused on retired teachers and retired steelworkers in six industrial countries. The study revealed significant differences in participation in retirement roles between the occupational groups (Bengston, 1969). Within the American city studied (Chicago) teachers were higher in worker, friend, neighbor, club member and civic/political roles. Steelworkers were higher in parent and grandparent roles. Tea-

chers were multi-role, with activity about equal among the three major areas of social interaction, while workers were active in only one area--family. In addition the steelworkers "were content with relatively passive time-filling activities" while the teachers chose "activities which required decision making, planning ahead, and self exertion." (Bengtson, Chiriboga and Keller, 1969, p. 64).

Cain (1967) suggested another factor bearing on the needs of the aging: generation or cohort. He hypothesized that Americans born from 1890-99 (Cohort A) "are distinct in ways of special significance for gerontological planning" from those born from 1900-1909 (Cohort B) (p. 84). He noted that Cohort B had the lowest completed fertility record ever in America. They completed their families earlier and experienced a longer "empty nest" period than Cohort A. Another change felt first by the 1900-1909 cohort was in sexual morality, the change that came in the 1920's. Terman reported that of the 1880-89 cohort 86.5 percent were virgins at marriage; the figure for Cohort A was 74.0 percent; that for Cohort B, 51.2 percent. Cain suggested that the transition from blue collar to white collar jobs, unionization, shorter work week, etc. indicate that Cohort B "is the first age group in America from whom the burden of toil has been lifted." "The implications for health status," he continued, "are manifold" (p. 88). Cain contended that these various differences in generational history will produce greatly differing needs in old age.

Grief may be another factor influencing patterns of aging (Shanas et al., 1968). Birren (1964, p. 284) has noted that "the deaths of friends and relatives come frequently in later life." Grieving may be "a central and virtually continuous experience" for the old person (Kastenbaum,

1973). To avoid becoming depressed and grief-ridden, the bereaved may experience "a partial dampening of reaction, in that the lowered drive states are accompanied by psychological disengagement or reduced affective involvement" (Birren, 1964, p. 284). Jeffers and Verwoerdt (1969, p. 176) commented on withdrawal and disengagement as a move away from people "aimed at protecting the individual against the painful loss, through death, of significant others." Lindemann (1944, p. 59) found that while bereaved persons often go through the motions of their regular routine, these actions "have to be carried on with effort, as though each fragment of the activity became a special task." Lindemann reported "a lasting loss of patterns of social interaction" resulting in "progressive social isolation" (p. 63). Shanas et al. (1968, p. 284) contended that "the evidence for [withdrawal] or [disengagement] is primarily based on the fact of bereavement (when it is not based on growing infirmity)."

Environment. Both social and physical environment may have impact on engagement patterns. Social environment includes cultural expectations. For example, in China one looks forward to aging as the high point of life. The old person is reverenced as the carrier of tradition. On the other hand the collective attitude in America focuses attention on youth and ignores the elderly. This is accompanied by "a tremendous overvaluation of extroversion and object-orientation" (Wheelwright, 1959, p. 408) and an emphasis on instrumental functions (Parsons, 1963). Kleemeier (1964, p. 180) noted that we "view leisure with suspicion and reject it summarily as a way of life." "Western culture," he contended, "is better geared to and better understands work." Palmore (1969, p. 60) suggested, "It may be that the activity theory is especially applicable to American culture with its emphasis on a 'work ethic,' on active mastery

versus passive acceptance of the nature of the world, on extroversion and the like." Another important element of the social environment is whether or not it provides opportunity for continued engagement (Roman and Taietz, 1967). Physical environment focuses on such factors as the stimulus level of the environment. Drawing on animal studies, psychologists have noted the impact of the stimulus level on activity (Birren, 1964; Kleemeier, 1964).

Circumstances of Disengagement. Lowenthal and Boler (1965) found that those who disengaged voluntarily had about the same morale as those who remained active. However, the involuntarily withdrawn had far lower morale; thus, the element of choice was an important factor. The congruence or fit between a person's social space and his readiness for disengagement can effect his morale. Optimum congruence, suggested Loeb, Pincus and Mueller (1966, p. 186) is found when:

1) the various dimensions of a person's environment fit together in such a way as to maximize the individual's autonomy within the limits imposed by his physiological status and psychological disposition,

2) the pattern or reorganization is consistent, has some continuity with the person's previous life style, and

3) any contraction occurs gradually, i.e., there is no sudden collapse of any dimension.

Processes of Disengagement

Psychological Disengagement. One aspect of the disengagement theory that has received solid support is psychological disengagement. Birren (1964) reported a study by Frenkel of European biographies focusing on activities and events, internal reactions to these events and productivity. He reported the discovery of three distinct phases: construction,

culmination and reduction. Cavan et al. (1949, pp. 5-6) noted the following psychological criteria of old age: "narrowing of interests, leading to introspection and increased interest in bodily sensations and physical pleasure" and "loss of interest in activity and increased interest in quiescence." One evidence for psychological disengagement is the fact that older persons are more likely to refuse to be interviewed than are younger persons (Mercer and Butler, 1967). Wheelwright (1959, p. 408) described Jung's portrayals of the first and second halves of life. The first half he characterized as object-oriented: ego mastery, defining boundaries, fulfilling oneself in the external world on terms of sex, ego marriage, children, profession and community standing. During this phase a person is required to give a great amount of concentrated effort which "is almost certain to produce a certain lopsidedness in the service of efficiency." On the other hand, once a person has reached 40 or 45 and probably achieved all the status he is going to, competitiveness and possessiveness become less important. The person "tends to become more subjectively oriented" and "increasingly concerned with what he is, rather than what he does." The second half of life then involves becoming nore oriented to inner psychological events which involves the task of disidentifying from outer things. Another aspect of psychological disengagement is cognitive constriction. Whereas emotional investment in the environment declines gradually, contraction of the effective life space cognitively may be sudden due to intrinsic physical decline (Back and Gergen, 1966). Shanas (1968) found that psychological restriction of life space and self-preoccupation did become more frequent at advanced ages.

Activity: No Inevitable Decline. Buhler's study of the curve of

life from biographical data indicated that human activity as reflected in involvement in responsible assignments appeared to culminate about age 30 and remain at peak level until about age 50, then begin to decline (Cain, 1964). Cavan et al. (1949, p. 6) found the sociological criteria of old age to include "withdrawal from active community and organizational leadership" as well as "reduction and contraction of interests and activities." Moberg (1965) reported that elderly persons were much less likely than their younger counterparts to hold lay leadership positions in the church. The Kansas City Study of Adult Life reported a long term decrease with age in interactions with other persons (Havighurst, Neugarten and Tobin, 1964; Havighurst, 1968a; Neugarten and Havighurst, 1969; Neugarten, 1972). However, several studies have failed to replicate the Kansas City finding of reduced activity with aging (Edwards and Klemmack, 1973). While an early report of the Duke longitudinal study showed confirmation of the Kansas City results (Maddox, 1964), later results showed almost no decline over a 10 year period in the men studied. The women in this study had a small (less than seven percent) but statistically significant decline (Palmore, 1968, 1969). Desroches and Kaiman (1964) found no significant changes over a four year period in frequency of activity participation of domiciliary residents. Videbeck and Knox (1965) found the social activity characteristics of persons 50-69 years of age to be identical with those of younger age groups. Bell (1973) reported no significant differences among those in different states of the family life cycle in regard to formal organizational memberships or frequency of participation in such groups. Tallmer and Kutner (1969) found disengagement due more to stress-inducing environmental and circumstantial distrubances than to intrinsic

factors associated with aging.

Cross-cultural studies have failed to show disengagement to be inevitable. In primitive societies continued engagement is likely (Cowgill and Holmes, 1972). Even among industrial nations disengagement is far from universal. In Japan the aged remain more active than in many industrialized societies (Palmore, 1975). The cross-national study of steelworkers and teachers revealed great variations between countries in activity patterns (Bengtson, 1969). A study in three industrial societies found that independent of growing infirmity, disengagement was not widespread (Shanas et al., 1968).

Brown (1974) found elderly persons disengage from situations and relationships they find unsatisfying but that they usually acquire a new social contact for each one given up. He concluded that the elderly do not choose disengagement as a general pattern. It has long been noted that disengagement has no general applicability to family relationships (Cumming and Henry, 1961). Carp (1968) noted that as an aging person disengages from people and activities outside the family his parental role become more rather than less important to him. Rosenmayr (1968, p. 676) discovered that "aged parents seem more attached to their children than vice versa." Youmans (1967) found slight evidence of disengagement from family relationships in a rural area but not in an urban area as he looked at family visiting patterns and family helping relationships. Townsend (1957) reported daily contact with their children on the part of a majority of the elderly persons interviewed. Troll (1971, p. 188) in a review of the literature regarding the family in later life noted "a converging set of findings" that "the postparental couple . . . is <u>not</u> isolated." There is "continued contact between aging individuals and

their kin, particularly their children" as evidenced in both visiting and helping patterns. Thus "disengagement is into rather than out of the family" (Troll, 1971, p. 205; italics added by Troll).

It has been found that voter turnout is lower for the aging than for middle aged persons. This has led to the interpretation that political interest increases from young adulthood to middle age, then declines, although not back to the level of young adulthood. This is an incorrect interpretation according to Glenn and Grimes (1968, pp. 507-71). They noted that this interpretation failed to control for such factors as education and health. They found the highest reported interest in politics to be in the age group 60 and above. They concluded: "Perhaps only widespread disability and lack of transportation keeps the voter turnout of the elderly down near that of middle-aged persons with the same amount of education." Mercer and Butler (1967) reported that older persons are more likely to be registered voters and to sign petitions than persons under 50. Kapnick, Goodman and Cornwell (1968) found older delegates to two state constitutional conventions to be no less active in communicating with fellow delegates than were the younger delegates.

Lowered Morale. Although some studies have found no association between social participation and morale (Tallmer and Kutner, 1970; Tissue, 1971; Lemon, Bengtson and Peterson, 1972), most research findings point to a positive association between the two (Kutner et al., 1956; Maddox, 1964; Pihlblad and McNamara, 1965; Palmore, 1968; Maddox, 1970a). Tobin and Neugarten (1961, p. 346) reported that interaction is positively associated with life satisfaction "and that, with advancing age, this association is increased rather than decreased." Similarly, Graney (1975, p. 704) found "The correlation between happiness and activ-

ity change is absolutely larger for the eldest interviewees" than for other age groups. Havighurst, Neugarten and Tobin (1968) reported that engagement rather than disengagement is generally related to psychological well being. Neugarten and Havighurst (1969, p. 139) argued that "the latest analysis of the Kansas City data indicate that life satisfaction is positively related to social interaction or activity in older persons." Palmore (1975) found activity positively correlated to morale among Japanese elderly. Neugarten and Havighurst (1969) found the same in the cross-national study of teachers and steelworkers. Knapp (1977) found a positive relationship between activity and life satisfaction among a group of elderly persons in Great Britain. Lipman and Smith (1968, p. 521) found a "relationship between high morale and engagement in old age regardless of variations in age, health, income, sex or race." Acuff and Allen (1970) found professional activity positively related to purpose in life among retired professors.

Rosow (1967) saw role loss as inversely related to morale. He later noted that "role loss and role ambiguity are generally quite demoralizing; they deprive people of their social identity and frequently affect their psychological stability" (Rosow, 1974, p. 11). Widowhood has been found to lead to lowered morale (Balu, 1973). The findings regarding the impact of retirement are mixed. Miller (1976, pp. 264-65) viewed retirement as "possibly the most crucial life change, requiring a major adjustment on the part of the older person." Miller termed retirement "a debilitating social loss" involving "the loss of occupational identity and a functional role in society." Cath (1965) suggested that loss of identity through retirement may precipitate social or physical decline. He called attention to the high death rate among retirees. Blau (1973, p. 25) found retirement "a significant cause of demoralization." She noted

that while widowhood is an uncontrollable event and thus unrelated to self esteem, retirement reflects "a social judgment that the interests of society are better served by excluding older people from work" (p. 32). Thus retirement is a threat to self esteem. Busse and Pfeiffer (1969) found a much higher proportion of retired or unemployed than employed experiencing depression. Back and Guptill (1966) noted that retired men felt less useful and less effective than those still working. Taves and Hansen (1962) reported greater satisfaction in those active in a work role or in organizational leadership than in those not so involved. Yet the Cornell Study of Occupational Retirement, a longitudinal study, concluded that "retirement is not usually a crisis" (Streib and Schneider, 1971, p. 178). One cross-national study found retirement to have "different psychological consequences in different modern societies" (Cowgill and Holmes, 1972, p. 321). In Russia and in the Israeli Kibbutz, retirement causes a few problems due to the "economic and psychological security" for old people. However, "in the more individualistic western societies" disengagement from the work role often leaves the retiree "at loose ends without any other significant or satisfying roles" (Cowgill and Holmes, 1972, p. 321).

A Special Case: Terminal Decline. Even some authors who question the inevitability and adaptive value of disengagement for the aged population in general recognize the period immediately before death as a time when disengagement may well be both inevitable and functional (Kalish, 1972; Birren, 1964). In the words of Birren (1964, p. 279):

> It is important to distinguish the terminal stage of life from normal aging. Terminal decline may extend from a few days or weeks to over a year. The terminal stage of life has such distinctive characteristics, both psychological and biological, that it may not be easily explained by the previous pattern of the individual's life.

Kubler-Ross (1969, p. 100) depicted the last stage of life as a time when the dying person is tired, weak, "almost devoid of feelings." His circle of interest diminishes," wrote Kubler-Ross. "He wishes to be left alone or at least not be stirred up by news and problems of the outside world." The dying person wants few visitors and is no longer talkative. "This is the time when the television is off." Kubler-Ross compared this final period to the passivity and narcissim of infancy. She suggested that the dying person separates "himself, step by step, from his environment, including his most loved ones" (p. 150). Kalish (1972) suggested that disengagement--both social and psychological--is probably more extreme in the very old and dying than in the recently retired.

The period immediately prior to death has been found to be a time of declining performance on intelligence tests, a decline labeled "terminal drop" (Riegel and Riegel, 1972, p. 306). In addition to poorer mental status, those near death are less assertive and more docile than those farther removed from death (Lieberman and Coplan, 1976). Lieberman (1968, p. 518) suggested that the psychological withdrawal observed in the dying is due to "an attempt to cope with the experience of inner disintegration." Lieberman (1966, pp. 71-72) discovered distance from death to significantly discriminate elderly persons in regard to several psychological variables. He noted that in "the last few months of life there is a sharp rise in the focus on one's body and the feeling that it is a less than adequate instrument." In addition there is "an increased sense of hopelessness." He did not find withdrawal from others; instead he found those closest to death to be highly interested in other people and responsive to their environment. He noted a "remarkable stability in self-concept." However, the dying do experience loss of ego efficiency, de-

creased learning ability and increased evidence of ego pathology. Lieberman (1968, p. 509) suggested that persons nearing death experience "a general system decline which may be measured either psychologically or physiologically." He contended that these changes occur regardless of whether the subject is aware he will not live long. Those closest to death show less adequate ego function but no significant change on affective measures. Lieberman and Coplan (1976) found elderly respondents within a year of death to differ from those surviving three or more years in both ego function and affect. They reported those near death to show poorer mental status and word learning but more adequate time judgment. Those near death were less affectively complex, less introspective, less assertive and aggressive, more docile and dependent. Those near death were more oriented toward intimacy.

Current Status of Disengagement Theory

Many scholars have expressed opposition to some aspect of the disengagement theory. Perhaps the most global attack has been leveled by Zena Smith Blau (1973, pp. 148-52). She contended that adjustment in old age involve more than mere contentment and be based upon "whether a certain pattern of behavior allows the individual possibilities for growth, for realizing his needs and for utilizing his capabilities as fully as possible." Disengagement cannot provide these possibilities according to Blau. She derided disengagement as "retreatism," tranquility at the price of stagnation and decline. She maintained that the "ability to love and the ability to work, which Freud considered the basic criteria of a healthy personality, continue to be as important in old age as in the earlier stages of life." She continued:

> I do not know what Cumming and Henry mean by 'normal.' If they mean that disengagement is the typical response to aging they are wrong. . . If they mean that disengagement is inevitable, they are again wrong, since it is not the sole or even the characteristic response that has been observed in older people. And, finally, I must disagree if by 'normal' they mean that disengagement is a healthy or desirable response to aging. For empirical evidence shows that as a rule just exactly the opposite is the case.

Blau concluded that "the disengagement theory deserves to be publicly attacked, because it can so easily be used as a rationale by the non-old . . . to avoid confronting and dealing with the issue of old people's marginality and rolelessness in American society."

Certainly the initial claims for the disengagement theory were exaggerated. The proposal by Cumming and Henry (1961) of disengagement as the one inevitable and universal path to aging has not been established. Disengagement is not an inevitable biological process (as is aging) but a variable social process (Hochschild, 1975). It is incorrect "to extrapolate an inevitable social disengagement from universal biological death" (Gubrium, 1973, p. 27). But as Tissue (1968, p. 513) suggested, "The apparent failure of disengagement as Grand Theory need not lead to its complete rejection as a source of insight and yet untested hypotheses." The disengagement theory has been highly productive in stimulating empirical research; this is an important criteria for the value of a theory (Shaw and Costanzo, 1970).

Kalish (1972) suggested evaluating disengagement on three levels. The first was disengagement as a process--whether or not it occurs. Second was the question of inevitability. The third level was whether or not disengagement is adaptive. Summing up what seems to be the weight of evidence, psychological disengagement (increased interiority) does occur. Social disengagement (lessened interaction) is sometimes ob-

served; however, neither the rate nor the exact pattern are uniform or inevitable. Usually the lowering of activity level is associated with a loss in morale; however, a number of factors may intervene to strengthen or weaken the association or even to produce a negative association. Among these are personal characteristics, environment and circumstances of disengagement. One time when disengagement seems most likely and most adaptive is the period immediately preceding death.

Death Worlds of the Aged

The subject of death and dying has received a great deal of attention in recent years. One bibliography in the field lists over 4000 titles, with most published since 1945 (Fulton, 1977). However, few studies have considered death and dying among the aged. In the words of Marshall (1975, p. 113), "A reviewer of the social-psychological literature of gerontology might well conclude that death is not considered the inevitable termination of the life span." The tables of contents for the leading journals in social gerontology, The Gerontologist and The Journal of Gerontology, show not one article on aging and dying within the year 1977. This is all the more surprising since "the major theoretical formulation in social-psychological gerontology [disengagement theory] formally incorporates awareness of finitude" (Marshall, 1973, p. 5). Those studies which have appeared may be grouped into three areas: patterns of aging and dying, attitudes toward death among the elderly, and death and social structure.

Patterns of Aging and Dying

Demography. In preindustrial societies death is a frequent occur-

rence among all age groups (Blauner, 1976). Although infants and children face the greatest threat of death, its reality is "omnipresent." "Anytime, everyone could meet death anywhere" (Matse, 1975, p. 21). In the modern Western world this situation has changed. "To a large extent," wrote Matse (1975, p. 21), "death has been banished from large groups of people. . . . It is mainly some special groups [above all the aged] . . . that see death frequently." Although the risk of death is still relatively high for infants under one year of age, deaths among children and young adults have been greatly reduced by modern medicine. The death rate increases dramatically with age (see Table V). Each decade of life beginning with age 45 has a death rate twice as high as the preceeding decade.

TABLE V

DEATH RATES BY AGE AND SEX, U.S.: 1971 (PER 1000)

Age	Male	Female	Age	Male	Female
Under 1 year	20.8	16.1	45-54 years	9.3	5.0
1-4 years	.9	.7	55-65 years	22.5	10.9
5-14 years	.5	.3	65-74 years	48.6	25.9
15-24 years	1.9	.7	75-84 years	97.9	64.3
25-34 years	2.1	1.0	85+ years	183.2	174.2
35-44 years	3.9	2.3			

Source: National Center for Health Statistics, Vital Statistics of the United States 1971, Vol. II: Mortality, Pt. A (Washington: U.S. Government Printing Office, 1975.

Diseases of the Aged. Modern medicine, especially through the development of antibiotics and immunizations, has greatly decreased the number of deaths from infectious diseases. It is infectious diseases along with accidents that are most likely to produce fatalities in children and younger adults (Hinton, 1967; Kubler-Ross, 1969). More people are living into older age. The chronic noninfectious diseases of later life (such as heart disease and cancer) have replaced acute infectious diseases as the leading causes of death (Glaser and Strauss, 1965; Hinton, 1967; see Table VI). One consequence of dying from chronic rather than acute illness is that the process of dying tends to take longer than it used to (Glaser and Strauss, 1965).

TABLE VI

THE LEADING CAUSES OF DEATH IN THE U.S.: 1900 AND 1974

Year		Disease	Percent of all Deaths
1900	1	Pneumonia	11.8
	2	Tuberculosis	11.3
	3	Diarrhea and enteritis	8.3
1974	1	Diseases of the heart	38.2
	2	Malignant neoplasms	18.6
	3	Cerebrovascular diseases	10.7

Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1976 (97th ed.; Washington: U.S. Governmenta Printing Office, 1976).

Processes of Dying. One of the most influential writers in the area of death and dying is Elizabeth Kubler-Ross. Her description of the stages a dying person moves through has been widely quoted. The first reaction on learning of a terminal illness is denial; then follows anger, bargaining, depression and finally (if the patient has time to work through the previous feelings) acceptance (Kubler-Ross, 1969). Hinton (1967), whose excellent study has not received the attention it merits, suggested that the elderly are more likely than younger patients to reach the stage of acceptance. Perhaps this is because elderly people have less physical suffering in their terminal illness. One study of dying hospital patients found 45 percent of those under 50 to have considerable pain. Of those age 50 to 70, 32 percent experienced physical distress compared to 10 percent of those over 70 years of age (Hinton, 1967).

Modern medicine has paradoxically made dying with dignity more difficult even while attempting to eradicate the causes of death (Blauner, 1976). Seldom is the dying person allowed to die in his own home, surrounded by family and a familiar setting. Too often death occurs in the hospital intensive care unit, isolated from family, with physical needs met but social needs ignored. In the words of Kubler-Ross (1969, p. 8):

> He may cry for rest, peace and dignity, but he will get infusions, transfusions, a heart machine, or a tracheostomy if necessary. He may want one single person to stop for one single minute so that he can ask one single question--but he will get a dozen people around the clock, all busily preoccupied with his heart rate, pulse, electrocardiogram, his pulmonary functions, his secretions or excretions but not with him as a human being.

This less than humane treatment of the dying may result from a phenomenon termed "social death" (Kalish, 1966; Sudnow, 1967). "Social death,"

wrote Kalish (1966, p. 73) "occurs when an individual is thought of as dead and treated as dead, although he remains medically and legally alive." Social death may hasten biological death (Kalish, 1966; Carpenter and Wylie, 1977). The goal of medicine is to increase the period of enjoyable and productive life. Simply extending a senescent existence with constant deterioration is no victory. "Though death can perhaps be deferred," wrote Hinton (1967, p. 64) "no one wants to lengthen the process of dying."

Attitudes Toward Death Among the Elderly

One of the pioneers in the area of death attitudes was Herman Feifel. Feifel (1956, p. 127) reported the literature contained "few empiric studies of attitudes toward death, and none focused on persons 65 years of age and over." The book The Meaning of Death edited by Feifel (1959) "played a major role in establishing 'death research' as a legitimate and productive enterprise" (Kastenbaum, 1966, p. 67). Feifel (1961, p. 61) suggested that "the unique feature of old age is the inevitability of death." Thus an important developmental task of aging involves integration of one's past life and acceptance of one's death. "Despite this," noted Feifel (1961, p. 61), "one is impressed with how little systematized knowledge there is about attitudes toward death in the older person."

Fear of Death. Early studies focused on the fear of death. Feifel (1956) reported 45 percent of the Veterans Administration Domicilary residents he interviewed chose the period of age 70 and over as the time when people most fear death. An overwhelming majority wanted to die quickly with a minimum of suffering. Wahl (1959, p. 19) suggested that our funeral practices reflect a defensive denial of death. He observed that

persistent denial of any fundamental reality is "psychologically costly." A symposium on Attitudes Toward Death in Older Persons at the Fifth Congress of the International Association of Gerontology in San Francisco in 1960 produced some conflicting findings. Rhudick and Dibner (1961) suggested that fear of death is common in the elderly although it may be denied in answer to direct questioning. Using responses to the Thematic Apperception Test, they found no relationship between high death concern and age, sex, occupational status, marital status or education. However, high death concern was associated with hypochondria, hysteria, dependency and impulsivity. Corey (1961) did not concur that age has no bearing on death attitudes; he found more avoidance of the topic of death among older persons. Swenson (1961) studied self-reported death attitudes. He reported that fear of death is not common in the elderly. Persons with more fundamental religious beliefs looked forward to death more than others. Persons living in homes for the aged had a more positive attitude toward death than did those living alone. Those in good health were more evasive in regard to death while those in poor health looked forward to it. On the other hand, Christ (1961) found those patients in better health less afraid of death. Jeffers, Nichols and Eisdorfer (1961) agreed with Swenson that lower fear of death is associated with more frequent Bible reading and belief in afterlife. Munnichs (1961) suggested the differing findings might be due to differing methods (projective tests versus direct questioning) as well as different populations being sampled.

A symposium on Death as a Social Problem in Social Gerontology was held at the eighteenth annual meeting of the Gerontological Society in Los Angeles in 1965. One of the liveliest issues in the panel-audience

interaction was the issue of whether aged people are afraid of death. There was no consensus on the issue. Some researchers insisted on taking denial of fear at face value; others saw this as a defense mechanism (Kastenbaum, 1966). Lieberman (1966) reported those furthest from death were most preoccupied with it. However Lieberman and Coplan (1976) found those nearest death more preoccupied with it and showing greater fear of death. Another study (Payne, 1967, p. 112) reported that "most people experience intense fear when they realize that they are dying." He suggested fear of death was connected with fear of separation, abandonment, helplessness and defeat. A common defense against the fear of death is denial. Denial breaks down during the course of terminal illness as symptoms increase (especially pain). Hinton (1967) found younger terminal patients to have more anxiety than older patients. However, among the general population Templer (1971) found no relationship between death anxiety and age. Lipman and Marden (1966) suggested measuring behavior rather than reported attitudes. They studied concrete preparations for death such as making a will, purchasing a cemetery plot and contracting with an undertaker. Race and education were the only factors significantly discriminating between those who had made preparations and those who had not.

Awareness of Finitude. Because of the conflicting findings in regard to fear of death, Kastenbaum (1966) suggested that other constructs might be more useful in studying attitudes toward death. Chellam (1964, p. 28) proposed "awareness of death" as a research variable. She defined awareness of death as "a recognition by the individual of the shortness of his life and the scarcity of time remaining to live." She contended that

awareness of death brings about a changed time perspective whereby the elderly person "sees death as an imminent reality for himself." She found high awareness of death to be significantly related to low social interaction. She noted it brought "a change from involvement with others to involvement with oneself" (p. 86).

Munnichs (1966, pp. 3-4) suggested "confrontation with the finitude of life" is the last developmental task. He contended that the realization "that life comes to an end and adjustment to this fact, might possibly be considered the focal point of the mentality of the aged" (italics added by Munnichs). He continued, "We shall probably misunderstand old age if we do not take finitude into account" (p. 8). He reported several stages in the development of one's attitude toward finitude. First comes ignoring, then evasion, finally a more definite position--either acceptance, acquiescence or escape. Older people are more likely to accept or acquiesce; younger people are more likely to ignore, evade or escape. The more death experience an older person has had the more likely he is to accept or acquiesce. The lower the number of daily life activities of an elderly person, the more likely he is to accept or acquiesce to finitude. Men are more likely to accept or acquiesce than women.

Victor W. Marshall is the researcher currently most active in the study of awareness of finitude among the elderly. Marshall (1975, p. 114) theorized, "Not death, not dying, then, but the awareness of the aging individual that his time is 'running out,' is suggested as a focal point of aging." He contended that "if and when the individual does become sharply aware of his impending death, this realization can affect his life in diverse ways." Marshall (1975) noted that although disengagement theorists suggested death awareness as a triggering mechanism, they

never unambiguously defined their concept or subjected it to empirical test. Marshall (1975) found awareness of finitude related to age, to a comparison of one's own age to the age-at-death of one's parents, to perceived health, to death of friends and to residential setting.

Bytheway (1977, p. 315) suggested,

> The possibility of one's own death is most likely to enter awareness when one's relatives or friends die. Particularly when acquaintances of one's own age die, one is likely to be thinking about death in more personal terms.

He noted the great increase with age in frequency of losing peer acquaintances. Butler (1964, p. 266) suggested a "life review" process occurs in the aged due to "the realization of approaching dissolution and death." This process involves reminiscing over past experiences and working through past conflicts.

Suicide. A behavioral measure of attitude toward death is the suicide rate. As Durkheim (1933, p. 245) noted, "The only experimental fact proving that life is generally good is that the great mass of men prefer it to death." When the suicide rate rises for a given population it may be assumed that for whatever reasons, an increasing proportion of the group prefer death to life. Suicide is more common among the elderly than any other age group. One fourth of all reported suicides are among the elderly, although the elderly comprise only slightly over one tenth of the population (Portwood, 1978). A content analysis of suicide notes by age reveals that younger persons' reasons for self-destruction are more likely to be a wish to kill (hate, aggression, revenge) or a wish to be killed (guilt, self blame, masochism). These motives decline with age. The motive that assumes increasing importance among older suicides is the wish to die, focusing on such feelings as hopelessness, discourage-

ment, fatigue, fear or despair (Schneidman, Farberow and Litman, 1970). Thus elderly persons who commit suicide do it not in a burst of anger but as a result of a decision that in drawing up a balance-sheet, life has become a negative value (Portwood, 1978). A number of reasons given by elderly persons why death may be preferable to life include inability to be active, loss of mental faculties or becoming a burden due to physical infirmity or social dependency (Marshall, 1973).

Death and Social Structure

Death is a threat to any social group. Therefore, legitimation of death is "of the greatest importance for any institutional order" (Berger and Luckman, 1966, p. 101). Berger and Luckman (1966) continued:

> All legitimations of death must carry out the same essential task--they must enable the individual to go on living in society after the death of significant others and to anticipate his own death with, at the very least, terror sufficiently mitigated so as not to paralyze the continued performance of the routines of everyday life (p. 101).

The meaning of death and circumstances in which it is proper are developed "by members of the community in interaction and are maintained by the social organization of the community" (Marshall, 1973, p. 33). This occurs both in the larger society and in smaller communities such as a religious sect, retirement communities, hospitals or old age institutions (Marshall, 1973).

Society. Death disrupts society by creating a social vacuum. The impact of a death is greater the more key roles the deceased person occupies. The death of a leader disrupts society more than that of a common person. The loss of an employed person with small children is more disruptive than the death of a retired person whose family is grown.

In primitive societies death strikes all age persons and is thus very disruptive. In modern Western societies death is primarily a phenomenon of the elderly and therefore of less consequence. The funeral customs of a society reflect the impact of death on the society. In primitive societies funeral rituals take a great deal of time and are highly elaborated. The social function of the funeral declines when the deceased tend to be irrelevant to community life. The recent attacks on modern funeral practices reflect a "crisis in the function of the funeral as a social institution" (Blauner, 1976, p. 544).

The death of the elderly is usually viewed by society as appropriate. In primitive societies the elderly person who could no longer perform a useful function was frequently left to die. This was not considered to be "cruel or ungrateful but the necessary end of a formerly useful life" (Hinton, 1967, p. 45). About half the nomadic tribes whose customs have been studied practice some form of hastening the death of the elderly. The decision that the time had come was not necessarily left to others. In Samoa the aged person might request to be buried alive. The custom is less prevalent among more settled peoples such as fishermen or farmers. As cultures become more highly elaborated, with fully established laws and religion, the practice becomes rarer and finally is condemned (Hinton, 1967). However, even in modern societies, "the helping professions tend to avoid working with the aging (Kalish, 1972, p. 86). A series of twelve empirical studies found that most students and practitioners in all medical fields surveyed "tend to believe the negative stereotypes about the aged and prefer to work with children or young adults rather than with the aged" (Palmore, 1977, p. 318).

A Religious Subculture. The Hutterites of North America face aging and dying with realism and serenity. This group, founded in Switzerland in 1528, believes in communal ownership and control of all property; they live in small agricultural communities. Each person contributes his work and receives his lodging, meals and clothing in return. In old age there is no decline in standard of living; in fact the elderly receive extra comforts in food and housing. Retirement is gradual; it involves no loss in power or prestige. Death, although not sought, is seen as inevitable. Death brings no financial worries to widow or dependents; "the loss of a breadwinner never means the loss of bread" (Eaton, 1964, p. 95). Death is little feared, probably due to firm belief in life after death. A matter-of-fact view of death may be noted in simple funeral customs and unadorned cemeteries (Eaton, 1964).

Retirement Village. Marshall (1976, p. 513) noted that moving to a retirement village heightens the retirees' awareness of finitude. They move there "knowing they will die there." There is a calculation on the part of both residents and management of life expectancy. Financial arrangements are based on this estimate. If an aged person underestimates his life expectancy he may exhaust his resources too rapidly. Within the setting of a retirement village the residents develop legitimization for death. Death is legitimated as being better than being disabled, being a burden or losing mental faculties (Marshall, 1973). On the other hand living somewhat longer is legitimated by social ties--"living for others." Such a reason for living is very important in the face of societal views of the uselessness of the aging. Without such a tie to significant others the elderly person may simply give up and die (Marshall, 1974, p. 28).

Hospital. Several observers have studied the social organization of the hospital in relation to death. One variable is the social value of the patient. The death of a child is considered a high social loss because he has "everything to live for." A young adult is also a high loss because of the gap he leaves in family, occupation and society. On the other hand the aged patient is believed to have "nothing more to live for" (Glaser, 1966, pp. 77-78). While the death of a child is always viewed as a tragedy, the death of an elderly person is "an almost casual, everyday event" (Weisman, 1972, p. 144). Certain factors may mitigate the low social value of old age, such as wealth, fame, an actively concerned family or a pleasing personality (Glaser, 1966). But by and large elderly patients engender less concern and less adequate care from medical personnel (Glaser, 1966; Sudnow, 1967; Papper, 1970; Carpenter and Wylie, 1977; Kalish, 1977). Sooner or later the doctor begins to minimize complaints of the elderly patient and ascribe them to "old age." "However," wrote Weisman (1972, p. 140), "old age is not a medical diagnoisis, but a new social role that the doctor imposes upon his patient.

Another variable is the "awareness context." This focuses on what knowledge the staff and the patient have about the patient's condition. The basic possibilities are closed awareness, in which the patient does not know he is dying but the staff does; suspicion awareness, in which the patient suspects that the hospital personnel believe him to be dying; mutual pretense, in which both patient and staff know the patient is dying but both pretend otherwise and open awareness, in which both staff and patient know he is dying and acknowledge it (Glaser and Strauss, 1965, p. 29ff). The doctor is the one given the responsibility of determining whether the patient is dying and if so when. He is also responsible to

make sure that staff, patient and family know what they need to know at different stages of the process so that no difficulties develop. It seems that most doctors do not reveal to the patient that he is dying (Glaser and Strauss, 1968a). However, most patients reveal they would like to be told if they have a terminal condition (Hinton, 1967), and usually appreciate the opportunity to discuss their condition (Kubler, Ross, 1969).

Death may be accelerated by a "finalizing environment" in which the aged person is treated as if he were already "as good as dead." In such an environment, lifelike behavior is neither "expected, identified or reinforced" (Kastenbaum, 1972, p. 122). Weisman (1972, p. 165) suggested there may be either a therapeutic or anti-therapeutic atmosphere in a patient's room. Weisman insisted atmosphere referred to "something stronger than such bland terms as 'social environment,' 'psychosocial structures,' or 'context of relationships.' Atmosphere keeps us alive." Glaser and Strauss (1968b) noted tendencies to isolate the dying patient during his last days of life. He is frequently placed in a private room; staff interact with him less frequently (Glaser and Strauss, 1968b; Watson, 1976). There is a special tendency to avoid patients who are not yet aware they are dying, those who have not yet accepted their terminality and those who are in great pain (Glaser and Strauss, 1965). The dying hospital patient may be subjected to the alienation experienced by others within bureaucratic organizations. In the words of Blauner (1976),

> Because doctors avoid the terminally ill, and nurses and relatives are rarely able to talk about death, he suffers psychic isolation. He experiences a sense of meaninglessness because he is typically kept unaware of the course of his disease and his impending fate. . . . He is powerless in that the medical staff and the hospital organization tend to program his death in keeping with their organizational and professional needs . . . (p. 130).

Nursing Homes. Residents of nursing homes have a far higher mortality rate than would be expected from their age and other demographic factors alone. The death rate in nursing homes is eight to ten times as high as that for the general population of elderly (Ingram and Barry, 1977). Gubrium (1975b, p. 197) reported that both nursing home patients and old age home residents "live with the knowledge that dying and death are imminent events for them." The patients in this study were more likely than the residents to display signs of terminality such as being bedridden, emaciated, unintelligible, etc. Yet both patients and residents "define their futures in terms of death" (Gubrium, 1975a, p. 321). Marshall (1973, p. 130) found residents of a home for the aged to be "highly aware that they have not too long to live." He suggested this awareness came from advanced age, poor health and "the vivid presence of death among them." The nursing home provides what Glaser and Strauss (1965, p. 79) called the "open awareness context." Both patient and staff know "that he has come to stay until he dies" (Gustafson, 1976, p. 461).

Matse (1975, p. 22) suggested that the "continual confrontation from death" in old age institutions creates a special strain on both resident and staff. This leads to the development of certain coping mechanisms. One such coping mechanism is avoidance of death as has been found among nurse aides (Howard, 1974). Another mechanism is the belief (similar to that noted in hospitals) that aging patients are of no great social worth. Glaser and Strauss (1968b, p. 61) noted,

> Both personnel and family are effectively protected against a sense of deep loss by their judgments that these patients' lives no longer have much value to themselves, to their families, or to the larger society.

In the nursing home there is no emotional "scene" with the grieving family, as might be expected with other types of death. These patients

simply "drift out of the world, sometimes almost like imperceptibly melting snowflakes" (Glaser and Strauss, 1968b, p. 64).

Treatment is affected by the perception that highly debilitated patients are "beyond help". Watson and Maxwell (1977) noted that when elderly patients are believed to be irreversibly disabled and when they become unresponsive, they are likely to be moved to rooms farther from the nursing station and to receive less care. This withdrawal of interaction and care resources from the severly impaired may be seen as a "regressive intervention." In the words of Watson and Maxwell (1977, p. 96)

> . . . the disengagement behavior of the well--as manifest in processes of segregation--will not only facilitate the breakdown of any remaining communication skills but will simultaneously accelerate the dying.

Often it may be the physician who decides to withhold all treatment and simply let the patient die. Yet many times the seemingly irreversible condition may be improved with proper care (Miller, 1971).

It might be noted that many aged institutional residents do not agree with a policy of withholding life-sustaining treatment. A study was made of the attitudes of retirement home residents and nursing care patients toward euthanasia. They were asked their opinion on positive euthanasia (instituting therapy designed to hasten death) and negative euthanasia ("the planned omission of therapies that would prolong life in terminally ill patients"). Half of the respondents opposed both kinds of euthanasia; a fourth opposed positive but favored negative euthanasia; the final group favored both kinds. Thus the largest group favored life at any price regardless of pain or medical expense (Preston and Williams, 1971, p. 300).

Different participants in the nursing home social system have differing conceptions of death and dying due to their different roles.

Patients and residents do not separate death and dying. "Death is conceived as the endpoint of dying" (Gubrium, 1975a, p. 324). In fact death is less feared than the painful process of dying (Gubrium, 1975a). Roberts et al. (1970) also found little fear of death among nursing home patients. On the other hand top staff personnel view death as a special event calling for their presence while dying is a routine matter to be handled by the floor staff. They want to protect patients from exposure to death as in closing the doors to other patients' rooms before removal of a body. Yet they are not concerned about patients' observing dying (as when a roommate is moaning and emaciated). They believe that patients' requests to move to another room to get away from a dying person are "unrealistic" and symptoms of not being "properly adjusted." Thus trouble may arise from differing social worlds having their own internal logic which seems irrational to other groups (Gubrium, 1975a).

Hospice. The lack of attention to the emotional needs of dying patients in traditional health care institutions (hospitals and nursing homes) has led to a new type of facility specifically for terminal patients. St. Christopher's Hospice in London was the first such institution in recent times. The goal of founder Dr. Cicely Saunders is to provide support during the "slow, painful, and very lonely process of dying" (Holden, 1976, p. 389). The hospice is for patients whose cancer or other disease is beyond possibility of cure and for whom the end is simply a matter of time. The first goal is to make the patient free of pain and the fear of pain through liberal use of pain-killing drugs. In addition the patient is given constant attention by staff, volunteers and family; children are welcome to visit. Families are encouraged to

help with patients' care. Other facilities have been established on the model of St. Christopher's, including a center for the care of terminal patients at St. Luke's Hospital in New York)Clark, Shapiro and Camper, 1978) and Hospice Inc. in New Haven, Connecticut (Holden, 1976). Banishing pain, treating the whole person and providing companionship are central in treating the dying (Hinton, 1967). These are the goals of the hospice.

Living Environments for the Aged

The importance of the living environment to the elderly person has long been recognized by gerontologists. Numerous studies have appeared on the influence of environment in general as well as that of particular residential settings. Each issue of The Gerontologist within the year 1977 contained one or two studies in this area. This extensive literature will be reviewed under three headings: impact of environment, retirement communities and old age institutions. It may be observed that most of the studies in the area of living environments are based on activity theory assumptions rather than the disengagement theory. Environmental conditions are often evaluated in terms of whether they encourage or discourage resident activity.

The Impact of Environment

Proshansky, Ittelson and Rivlin (1970b, p. 36) pointed out that people are usually unaware of the characteristics of their environment. However, "to be unaware of an environment is by no means to be unmoved by it." "The environment," wrote Lissitz (1970, p. 300), is more than a stage upon which man plays and strolls. Man is linked to and fed by the environ-

ment." Proshansky, Ittelson and Rivlin (1970a, p. 174) noted, "Man's attempts at need satisfaction always involve him in interactions and exchanges with his environment." A change in any part of the setting affects all other parts. Such changes may originate in "the physical, social, or administrative structures that define the setting" (Proshansky, Ittelson and Rivlin, 1970b, p. 33). Human action and environment are in constant interaction; each influences the other (Lawton, 1974). M. Powell Lawton, a leading spokesman for the importance of environment, identified several components of the environment. First is the individual component including personality, experiences and physical capability. The second element is the interpersonal environment, including family, friends and "others from whom the individual takes clues." The supra-personal environment refers to the social characteristics of the setting. This includes the impact of such factors as the age and sex distribution, physical and mental health status of residents. The fourth component is the social norms, including both formal rules and informal expectations. The final element is the physical environment (Newcomer, 1973, p. 79).

Aging and Environment. The environment can exert important influence on anyone. However, there is reason to believe the environment may be more significant to elderly persons than to the general population. Lawton (197a, p. 40) developed the "environmental docility hypothesis" which states:

> . . . limitations in health, cognitive skills, ego strength, status, social role performance, or degree of cultural evolution will tend to heighten the docility of the person in the face of environmental constraints and influences. The older person is thus more sensitive to change in the environment than people in middle life because he is likely to have experienced some kind of reduction in competence.

Gubrium (1973, p. 39) found activity resources (health, solvency and having a living spouse) to give the aging person greater "flexibility to decide upon a course of action." Rosow (1967) found that elderly people who were in poor health were more restricted to immediate neighbors in choosing friends than were those in better health. Similarly the working-class elderly were more limited to local friends than were middle-class elderly. Birren (1965, p. 107) noted, "Old age seems to bring with it a greater dependency on the immediate environment, especially in family relations." This great sensitivity of the aging to the environment may have either positive or negative results. It means that an environment low in stimulus value may have a very detrimental effect. But it also means that small changes in the environment may bring substantial results in terms of adjustment on the part of the elderly person. Thus "the payoff for effective environmental intervention is very high for older people in poor mental or physical health" (Lawton, 1976, p. 322).

Physical Environment. When a living environment is to be build for senior citizens, what are design characteristics that will maximize its usefulness? As Lawton (1973, p. 33) pointed out: "There is little relatively hard scientific information available to guide the architect, the decorator or institutional administrator in creating an optimum treatment environment". Some goals may work together; others may be mutually exclusive and demand some hard choices. Is it more important for the facility to be institutional or homelike: Is it more important to have tile floors which can be readily disinfected or carpets to look "more like home"? Is it better to have new, uniform furniture or allow residents to furnish their own rooms? Koncelik (1973) suggested that a long term care facility should look more like the residential setting

that it is rather than following the medical model. Lawton (1974, p. 82) called for a "prosthetic environment" in which "even the most inert physical environment may become a dynamic component of a system to counteract the negative influence of deficits." New environments designed for the aged should "support his or her competence, and thus help the elderly maintain self-esteem" (Schwartz, 1976, p. 12).

The first dimension in which living environments for the aged should be evaluated is resource rich-resource sparse (Pincus, 1968; Pincus and Wood, 1970). Facilities designed for the elderly should amplify sensory stimuli. For example, elderly people require greater illumination. Yet simply increasing the illumination is not helpful if glossy wall and floow coverings produce glare (Lawton, 1973). Such aids to orientation as large clocks and calendars, large room numbers and names of occupants and color coded paths or floor areas are suggested. In addition sensory stimuli such as seasonal posters and paintings are recommended (Lawton, 1974). Zones of color along hallway walls would both break up the monotony and assist residents in orienting themselves. Since the sense of touch seems to decline with age less than the other senses, "increases attention ought to be paid to texture cues" (Lawton, 1973, p. 39). The elderly prefer densities of people and objects that seem intolerable to younger persons. Note the "often heard complaint by younger people that grandparents' home or apartment is cluttered or messy." This cluttered environment satisfies the needs of the elderly for "heightened peripheral vision stimulation, increased tactile involvement, greater kinesthetic involvement, and a sense of closeness" (DeLong, 1970, pp. 85-86). Furniture should be arranged so as to encourage interaction; for example, chairs placed at right angles encourage conversation while chairs placed

in a straight line along the wall discourage interaction (Sommer, 1970; Lawton, 1973; Snyder, 1973). A resource rich environment would include a number of activity resources. Sheltered workshop, craft shop, garden plot, flower garden, library and physical therapy facilities might all promote resident activity (Zelditch and Bram, 1965; Pincus, 1970). Lawton (1974, p. 79) pointed out that "few institutions have facilities for individual cooking, laundry, or care of one's possessions." As a result competence is lost through lack of opportunity to continue practicing skills. Lawton (1974, p. 79) suggested, "This loss of instrumental roles is one of the most destructive aspects of becoming an institutionalized person." One recent study (Lipman and Slater, 1977a) suggested building homes for the aged with decentralized dining facilities so that residents could do their own cooking. Each cluster of six or eight rooms would have its own kitchen and dining room. In addition there would be a sink and hot plate in each room. It was proposed that such a change would encourage initiative on the part of residents. Medical facilities in old age institutions too often provide "evidence that we still do not take the care of the aged seriously" (Friedman and Coleman, 1970, p. 213). An important part of physical resources is adequate medical facilities meeting standards of safety, efficiency, human dignity and social interaction. Such facilities demonstrate that "many illnesses of the elderly can be treated successfully" as well as allow maximum independence for the residents (Friedman and Coleman, 1970, p. 214).

Another element important in design is the public-private dimension (Pincus, 1968; Pincus and Wood, 1970). To what extent is the resident allowed a private domain not open to public view or use? Ittelson,

Proshansky and Rivlin (1970) noted that psychiatric patients in one, two or three bed rooms exhibited a broader range of activities than did patients in larger rooms. They reported that patients in larger rooms spent more time in isolated passive behavior. They suggested that a small room (ideally a single room) maximizes behavioral options. DeLong (1970, p. 83) found that elderly residents of private rooms were less agressive and more cooperative than those in shared quarters. He found most residents of multiple-occupancy rooms either spent their time in their rooms "or established territories in the corridor which they aggressively defended against intruders." Lawton and Bader (1970) found that when there is a realistic opportunity to get a private room almost everyone wants one. Townsend (1962a) found most residents desiring private rooms. Newcomer (1973) suggested privacy is necessary to allow for "backstage" behavior. Private rooms have been found to be associated with more friendships (Townsend, 1962a) and greater interaction (Goldfarb, 1969). Westin suggested four functions of privacy: personal autonomy, emotional release, self evaluation and limited and protected communication (Pastalan, 1970).

Another consideration in regard to physical environment is the isolated-integrated dimension (Pincus, 1968; Pincus and Wood, 1970). This dimension is "the degree to which the environment affords opportunities for communication and interaction with the larger heterogeneous community" (Pincus, 1970, p. 118). It has been suggested that living environments for the aged be located conveniently to shopping areas and a hospital (Zelditch and Bram, 1965). Housing for the aged is most accessible to nonresidents and thus least isolating when located in a metropolitan area rather than at a distance from a metropolitan center

(Shanas, 1969; Jacobs, 1976). The site should be ample enough to provide adequate parking as well as outdoor space for landscaping and use by residents (Zelditch and Bram, 1965).

Other important elements of the physical plant include being fireproof, spacious and flexible. The building should be properly designed to meet both health needs and social needs)Zelditch and Bram, 1965). Then too facilities should be attractive; Lawton (1973, p. 35) contended that it is not "intrinsically necessary" for a functional design to ignore aesthetic considerations. Drabness may be depressing both to staff and residents (Lawton, 1974). Rosenblatt (1970) found that good physical plant encouraged staff morale and innovativeness. Studer suggested that in evaluating institutional facilities we must consider three factors: what the goals are, what behaviors are necessary to attain the goals and whether the physical setting facilitates or retards those behaviors (Ostrander, 1973).

Social Environment. Although the physical environment has a great influence on the behavior and attitudes of residents, other aspects of the milieu must also be considered. Kleemeier (1961, p. 285) noted, ". . . the staff and other residents or patients as well as rules, routines, and operating procedures all interact with the physical environment to modify its effects upon the person". Kleemeir suggested evaluating environments in residential settings for the aged along three dimensions. One important aspect was the segregate--non-segregate dimension, referring to whether the setting houses only elderly people or all age groups. Rosow (1967) suggested that in age-segregated environments there is likely to be greater interaction between residents than in

heterogeneous settings. In his study of segregated environments there is likely to be greater interaction between residents than in heterogeneous settings. In his study of apartment buildings in Cleveland with varying proportions of elderly, he found old people in a highly age-segregated environment are more likely than those in heterogeneous environments to visit and be good friends with other residents. Kleemeier (1961) suggested the degree of involvement and responsibility in activities is increased in an age-segregated environment.

The second dimension described by Kleemeier (1961) was congregate--non-congregate. This referred to the closeness of living quarters and degree of privacy. Gubrium (1973) suggested the proximity dimension in residential facilities may be differentiated between those where all units are in the same building and where there are separate cottages. Gubrium stated that both congregate and segregate dimensions are involved in determining the age-concentration of the living environment. A highly age-concentrated environment includes both age-segregation and physical proximity. High age-concentration stimulates interaction. Rosow (1967, p. 337) suggested, "The concentration of people with common status problems, with similar life experience and perspectives, maximizes the opportunity for new friendships." High interaction among a homogeneous group facilitates the development of an age-specific subculture. In an age-specific subculture activity norms are more likely to be congruent with the needs and abilities of aged residents than in heterogeneous or dispersed communities (Gubrium, 1973).

The third dimension described by Kleemeier (1961) was institutional --non-institutional. This referred to the control dimension or the amount of freedom of choice allowed the residents. Goffman (1961, p. 6) used the term "total institution" to describe residential institutions where all aspects of everyday life are conducted in the company of a large

group of other people treated more or less impersonally. In such institutions "all phases of the day's activities are tightly scheduled." All activities are designed to meet the official goals of the institution. There is frequently a conflict between humane standards and institutional efficiency in which the latter usually wins out. Although his research primarily focused on mental hospitals, Goffman suggested the same pattern occurs in a variety of other settings including old age institutions. As with the other dimensions, this is not an either-or situation, but varying levels may be found along an institutional--non-institutional continuum (Kleemeier, 1961). This dimension has also been called the structured-unstructured or freedom dimension (Pincus, 1968; Pincus and Wood, 1970). Wolk and Telleen (1976) studied the effects of residential constraint in a high constraint environment (old age home) and low constraint environment (retirment village in which residents owned their homes). They found life satisfaction higher in the low constraint environment. Reid, Haas and Hawkings (1977, p. 450) interviewed elderly persons in regard to their "sense of being in control of matters of personal importance." They found those with a low sense of control had a more negative self-concept. They found this was more pronounced for men than women and greater for residents of homes for the aged than for community residents. Dudley and Hillery (1977) found that among eight types of residential institutions studied (including communes, monasteries, college dormitories, boarding homes and fraternities and sororities), old age homes were second highest in deprivation of freedom by their residents. Highest deprivation of freedom was experienced in boarding schools; military academies ranked third. Residents of homes for the aged were highest in alienation. Kleemeier (1961) suggested that the

residents' degree of involvement and leadership in activities is inversely related to degree of institutionalization.

Another factor suggested by some as important in molding the social environment is type of sponsorship--whether proprietary, non-profit or public. Some authors have suggested non-profit institutions are superior due to more positive attitudes on the part of staff (Lawton, 1970b), more independence on the part of residents (Shore, 1976b) and more community participation and cultural continuity (Geld, 1964). Yet other studies have found no significant differences (Levey et al., 1973) or more similarities than differences among differing types of sponsorship in quality of care indicators (Holmberg and Anderson, 1968; Anderson and Stone, 1969).

The given dimensions of the social environment are less significant in themselves than in whether or not they are congruent with the needs of the residents (Gubrium, 1973; Kahana, 1974). In two recent studies residents were asked their suggestions for their residential environment. The primary things they wanted from their milieu were "continuation of earlier life styles, private domain, and need gratification"(Kahana,1975, p. 83). Some of the ways in which the environment and individual needs may or may not be congruent have been noted by Kahana (1974). The individual's need for activity or passivity may or may not fit the amount of stimulation provided by the environment. The individual's need for affective expression relates to the affective milieu (tolerance for expressing feelings). The individual's tolerance of ambiguity may or may not mesh with the amount of structure provided by the environment. Kahana (1975) noted that the orientation in gerontological research began with the individual, then shifted to the environment and currently

is focusing on the interaction between the two.

Retirement Communities

A variety of types of housing for the aged have been developed in recent years to meet the special needs of this group. Types of housing include retirement villages, high-rise apartment projects, retirement hotels, mobile home parks and facilities that combine independent living units and congregate facilities. Retirement villages appeal to the "younger" segment of the retired population. In contrast, facilities with both independent units and congregate quarters appeal to the "older" segments of the elderly population. Here the resident can live independently as long as possible, then move into congregate quarters when necessary (Shanas, 1969).

Geist (1968) reported an excellent study by Sherman, Mangum, Dodds and Wilner of the characteristics of six different retirement communities. The six facilities were chosen to represent model types of retiremen housing. The authors gathered information on 100 residents in each site. Three of the facilities were occupied primarily by working-class elderly (retirement hotel, rental village and high-rise apartment), three by middle-class (two purchase villages and a denominational life-care facility). Several differences were noted. The residents of the purchase villages were youngest and composed primarily of married couples. The high-rise apartment, retirement hotel and life-care facility had a majority of widows. Divorcees were most likely to live in the retirement hotel while single (never married) persons were most likely to be found in the life-care facility. The lowest median income was in the retirement hotel; the highest, in the upper middle income purchase

village. The rental village had the lowest median education; the highest education was found in the denominational life-care facility. Mutual help in such areas as picking things up at the store, assisting in times of illness and borrowing and lending things was most likely to occur in the life-care facility, least likely in the retirement hote. The greatest number of activities were participated in by residents of purchase villages. The activity score (including both number and frequency of activities) was highest in the middle income purchase village. Organizational membership was highest in the upper middle income purchase village. Low score on all activity measures was found in the retirement hotel. Those in the middle income purchase village were most likely to feel they had a voice in the way the village was run; residents of the retirement hotel were least likely to believe they had any voice in running the facility. Residents in upper middle income purchase village had the highest morale. Lowest morale was registered by residents of the retirement hotel. This lowered morale in the retirement hotel may have reflected both poorer social environment (less perceived control) as well as inferior physical environment (the hotel was built in the 1920's, the other facilities were two to six years old).

Public Housing. Public housing for the aged has become available in more and more communities in recent years. Such housing is designed to provide the elderly poor with "safe, attractive dwelling units at rents they can afford." Such housing also offers opportunity for increased social interaction with age peers (Winiecke, 1976, p. 331). This community of peers may be quite important in maintaining activities and interests. Hochschild (1976, p. 367) suggested that disengagement may be

situational; "socially isolated older people may disengage but . . . older people supported by a community of appropriate peers do not." She found in a San Francisco Bay apartment building a virtual "old-agers commune" with friendship networks, neighboring and mutual aid. She suggested that "communal solidarity can renew the social contact the old have with life. For old roles that are gone, new ones are available." Carp (1977) described the beneficial results experienced by elderly persons who moved from substandard private homes into a low-cost high-rise apartment building for elderly in San Antonio. Comparing residents with a control group made up of applicants who did not move into the apartment building, she found that over an eight year period the residents had less decline in health and lower mortality rate. The residents were also more active and showed higher morale than the comparison group (Carp, 1970). Carp (1977, p. 248) concluded that "at all levels of human need, the new living environment facilitated satisfaction and reduced stress."

Mobile Home Parks. Johnson (1971) reported a participant observation study of Idle Haven, an adult mobile home park in California. This park was not limited to elderly; but like many parks in California it excluded children under age 16. About half the residents were elderly. Johnson noted several reasons for moving to a mobile home park: it is a homogeneous group of working class persons; it excludes undesirables (notably blacks) and it is friendly. Johnson suggested the "casual (and sometimes intimate) relationships" within the park were based upon the "basic trust engendered by the social homogeneity of the park" (p. 84). This did not mean there were not tensions among people living so close together; quarrels sometimes left participants estranged for years. In

this park there were more couples than widows. Therefore, widows moving into the park had a harder time making friends and becoming active in social events than married women or women who were widowed after moving to the park. The patterns of mutual aid in the park contributed to the sense of community. Johnson stated that mutual aid operated according to what Gouldner called "the norm of reciprocity" (p. 98). There is a dysfunctional side to this norm in that if people establish relations only with those who can reciprocate it may bring about neglect of those unable to do so. In Idle Haven there is a residents' association to plan activities; this gives more feeling of control than in parks where the administrator refuses to allow an organization or preempts the planning of all activities to himself or a recreation director.

A Florida trailer park was studied by Hoyt (1976). This is a much larger park than that reported by Johnson (1093 spaces compared to 200). This park is strictly for retired persons. Here the activities are all formally sponsored by the management. Yet the picture of everyday life that emerges is quite similar. There is a high degree of social interaction, leading both to friendship and to mutual aid in times of illness. There is a well developed and diversified activity program with leadership frequently provided by the residents. Leisure pursuits are "more highly sanctioned than would be likely . . . in a community in which the predominant interests centered around economic activity" (p. 363). Hoyt concluded, "Personal adjustment in retirement and old age is facilitated by the attitudes and institutional practices of mobile-home communities" (p. 364). This is brought about by the sanctioning of "social roles which are congruent with the needs and interests of the retired person" (p. 364).

Retirement Villages. Jacobs (1976) described a retirement village in which the residents purchase their homes in the 19,000 to 50,000 dollar range. A nursing home and mortuary are located out of sight of the main village. A set of "garden apartments" for those unable to remain in their own homes but not yet ready for the nursing home provides maid service and a common dining hall. Thus the village provides care for elderly persons from early retirement to death. Jacobs gave a negative view of life in this "unnatural environment" separated from other age groups (p. 386). He found only about 10 percent of the 5000 residents were engaged in the activity program; 15 percent had not been active prior to retirement; 25 percent had been forced into inactivity due to health problems; and 50 percent had been engaged prior to moving to the retirement village but had since disengaged. This last group seems to fit the disengagement theory; yet as Jacobs noted, "There is no proof for or against the contention that their disengagement is beneficial, either for them or for society" (p. 386). In contrast Marshall (1974) found that residents in a retirement village were engaged in their relationships with other persons, especially their spouse. "Living for each other," wrote Marshall (p. 28), "represents a continued state of engagement which provides legitimation for desiring to live longer."

Old Age Institutions

In the decade between 1960 and 1970 the occupancy of old age institutions (nursing homes, rest homes and homes for the aged) more than doubled (Manard and Kart, 1976). The total proportion of elderly persons in old age institutions was slightly under four percent in 1970. But this should not be interpreted to mean that only one person in 25

will ever reside in an institution. A one year study in Detroit found approximately 20 percent of all deaths to occur in nursing homes. Thus the number in an institution at a given time greatly underrepresents the number who will enter an institution at some time (Kastenbaum and Candy, 1976). The types of old age institutions are theoretically differentiated by level of care needed by the residents. Nursing homes are intended to serve the weakest type residents, while homes for the aged and rest homes are supposed to care for those who are reasonably well but who require some assistance in daily living. As Kleemeier (1961, p. 276) pointed out, "This is no idle distinction, yet it is a difficult one to maintain." Homes for the aged must solve "the difficult problem of providing for the care of residents who become chronically incapacitated." Similarly rest homes must often keep residents who no longer need medical services but have nowhere else to go (Kleemeier, 1961). Zimmer (1975, p. 1003) found patients admitted to skilled nursing homes had more severe disabilities and needed more care than those admitted to intermediate care facilities (rest homes, homes for the aged). However, he found "a considerable overlap to exist between the two patient populations in respect to their disabilities."

The same factors which push toward disengagement are also likely to lead to institutionalization. Mental decline, including brain damage, depression and general inability to order one's life, may be the cause of institutional placement (Taylor, 1972; Burnside, 1973a). Health losses are likely to necessitate entrance to an old age home. In the past it was more likely to be financial need that prompted entrance (hence the "poor farm"), but today with old age assistance and Social Security, most elderly maintain their own homes until their health fails

(Brody and Gummer, 1967; Kahana, 1971; Gaynes, 1973). Those "overrepresented in institutions are very old, economically and socially disadvantaged, and the physically and mentally impaired" (Riley and Foner, 1968, p. 579). Social change is another factor affecting the utilization of nursing homes. This includes change in the family--fewer children and less ability to care for the aged at home (Nimkoff, 1962; Zimmer, 1975). Those admitted to homes have fewer living children than the general population (Pan, 1950; Scott, 1955; Riley and Foner, 1968). Barney (1977, p. 310) pointed out, "Potential long-term patients and their families tend to draw on individual and combined resources to put off nursing home admission as long as possible." Zimmer (1975) noted that changing social and family structure and accompanying urbanization has reduced "the ability of the traditional family constellation to care for its aging members within the home" (p. 992). Townsend (1965) contended,

> The likelihood of admission to an institution in old age is partly contingent on family composition, structure and organization, and not on incapacity, homelessness and lack of socioeconomic resources (p. 164).

Social change is also evident in Federal programs which enable more elderly to live alone, since elderly living alone are the highest risk for institutionalization (Riley and Foner, 1968; Manard and Kart, 1976). Role loss, especially widowhood, greatly increases the likelihood of entering a home (Pan, 1950; Scott, 1955; Riley and Foner, 1968). Of course, one other factor leading to increased occupancy of old age institutions is the dramatic increase in numbers of elderly in the population (Zimmer, 1975; Manard and Kart, 1976).

The Institutionalized Elderly. Lissitz (1970, p. 299) has called institutional care "the ultimate in disengagement and withdrawal of aged

from society." This is due in large part to various observations of institution populations indicating they are apathetic (Burnside, 1973a), lack creativity and self-determination (Townsend, 1962a), are docile and submissive (Lieberman, 1969) and are restricted in interests and in self-esteem (Arthur, Donnan and Lair, 1973). Institutionalized elderly spend more time thinking about the past and show virtually no interest in the future (Fink, 1957). They become resigned, lose initiative and talk little (Townsend, 1962b). They seem to become depersonalized (Shore, 1962; Townsend, 1962b; Bennett, 1963; Coe, 1965). This syndrome has been observed so frequently in institutionalized persons that it has been given the name of "institutional neurosis" or "institutionalization" (Townsend, 1962a, p. 330). Institutional neurosis is "a disease characterized by apathy, lack of initiative, loss of interest, especially in things of an impersonal nature, submissivene-s" (Lipman and Slater, 1977, p. 147). A key question is whether nursing homes or other institutions create "the very type of patient, inmate or resident it wants, as well as needs, to justify its existence" (Tobin, 1964, p. 518).

Many researchers doubt that the entire blame can be placed on the fact of residing in an institution. One cause may be the self selection process whereby the persons least able to cope with life outside enter institutions (Townsend, 1962a; Anderson and Stone, 1969; Lieberman, 1969; Kahana, 1971). Townsend (1962a) pointed out that the observed symptoms may be due to any of three separate causes. First was previous social history and environment; people may have been apathetic or withdrawn before entering the institution. Second, the symptoms may be caused by their illness, such as depression. The elderly person has to adjust to many losses, including loss of mobility, health, mental acuity, loved

ones and home (Burnside, 1973b; Cath, 1965). According to Pfeiffer (1973) depression is a normal response to the losses of old age. The symptoms are much the same as those of institutionalization:

> Depression is manifested by a period of abject sadness, cheerlessness, hopelessness, lack of interest in the surroundings of oneself, lack of interest in other persons, and lack of interest in the future (p. 37).

Another factor may be the shock of environmental change in the relocation process rather than the effects of life in the institution itself (Lieberman, 1961, 1969; Lawton, 1968; Jacobs, 1969). Mortality rates are abnormally high during the first year of institutional residency (Lieberman, 1961). Residents who have been in an institution the longest frequently are among the best adjusted (Amen, 1959). The impact of entering an institution is affected by whether the entrance was voluntary (Amen, 1959; Kleemeier, 1961; Brody and Gummer, 1967; Riley and Foner, 1968; Goldfarb, 1969). It also is mediated by the meaning of institutionalization to an individual, such as loss of independence, rejection by children or prelude to death (Lieberman, 1969). Finally, some of the symptoms of institutionalization are due to "exposure to the conditions prevailing in the institution" (Townsend, 1962a, p. 331). These conditions include loss of instrumental roles (Lawton, 1974) and "acceptance of a cloak of protection" that fosters dependency (Gold, Entman and Earlix, 1962, p. 41). There is often a feeling of loss of freedom (Bennett, 1963). The institutional setting offers security but at the price of giving up personal responsibility. DeRuijter (1962, p. 207) contended that mental vivacity can only be "stimulated by a certain scope of personal responsibilities (in other words of personal risks)." Among old age institutions, nursing homes seem to foster the greatest degree of dependency while homes for the aged promote the most personal independence

(Shore, 1976b). Another problem of the institutional environment is that it attempts to bring about a sense of community among a group of strangers not bound together by family, occupational and neighborhood ties (Townsend, 1962a). "One of the paradoxes of institutional living," wrote Kahana (1973, p. 284) "is the loneliness and isolation experienced by people who are hardly ever alone." Lawton (197a, p. 47) suggested institutionalization may bring about "social withdrawal as a substitute for loss of physical privacy."

It should be noted there are certain beneficial effects from entering an institution. For those who have been isolated in the community, the institutional environment may provide more stimulation. In some cases there is a rise in cognitive responsiveness following entrance into a home (Lawton, 1974). Kinship relations have been found to improve following entrance to an institution (Amen, 1959). The family of a resident may be an important resource (Kahana, 1973; York and Calsyn, 1977). One study showed nursing home residents to feel more financially secure than those in the community (Scott, 1955).

Many residents of old age institutions suffer from chronic illness (Riley and Foner, 1968; Zimmer, 1975). There is confusion of the role of the sick person in acute illness with the sick role in long term illness with the result that the elderly long term patient frequently becomes too passive and dependent (Wessen, 1965; Ness, 1973). The sick role in acute illness as described by Parsons calls for ceasing normal functions and becoming dependent. In chronic illness it becomes dysfunctional to become passive and dependent. The elderly person who becomes chronically ill should participate in his own care and maintain his independence (Wessen, 1965; Ness, 1973). Dependence contributes to

a feeling of hopelessness (Gottesman, 1973). Motivation to work for his own improvement is frequently linked to the aging person's being allowed to participate in decisions that affect his welfare (Brill, 1969). Another factor which characterizes many residents of old age institutions is senility or chronic brain syndrome. One study found 80 percent of those entering such institutions to have this condition to some degree (Goldfarb, 1961). Symptoms include forgetfulness (especially loss of recent memory), restlessness, withdrawal, disorientation and irritability. Latter stages include loss of speech, inability to feed oneself and incontinence (Leeds, 1964a; Barns, Sack and Shore, 1973). This is usually due to cerebral arteriosclerosis, but may also be related to environmental and personality factors, infectious diseases, strokes, malnutrition, loss of loved ones, loss of familiar surroundings, etc. (Leeds, 1964a; Wang, 1969; Burnside, 1976a; Taulbee, 1976). Organic factors are often emphasized to the neglect of environmental and personality factors (Wang, 1969). Leeds (1964a, p. 139) speculated, "In a greatly prolonged life span, senility may, in time, become the chief psychological disturbance of the human life cycle."

Numerous problems have been observed among the institutionalized. "The issue, however," pointed out Anderson and Stone (1969, p. 214) "is not to speculate about the reasons for the sorry state of many institutionalized aged persons, but to identify suitable action points for remedying the situation." Two such action points may be staff and program.

Staff. There is an extremely high turnover in nursing home personnel, running around 60 percent annually in one national survey (Townsend, 1971); there is also high absenteeism (Stannard, 1976). Staff morale is low due to a number of factors including low pay, low status

of nursing home employment, the lack of visible results in terms of "cure," the disagreeable nature of many of the tasks and limited opportunity for advancement (Townsend, 1971; Cohen, 1975; Kalish, 1975; Gustafson, 1976; Stannard, 1976). The instability of staff is very unfortunate since the staff is crucial in establishing the social environment and the quality of care (Lawton, 1968; Cohen, 1975). As Lawton (1968, p. 1358) noted, "The staff occupies the prime position in the rehabilitation effort." The staff by their attitudes may foster passivity, dependency and infantilism (Mullan, 1964; Brill, 1969; Gottesman, 1973). Gottesman (1973, p. 26) declared, "Every milieu depends on its staff's attudes, and changes in milieu depend on changing staff attitudes." Suggestions for improvement of the situation frequently focus on training and staff meetings (Kleemeier, 1961; Goldfarb, 1969; Kahana, 1971; Cohen, 1975). Patterson and Gurian (1976) found staff training increased job satisfaction. Higher employment standards have been called for (Lissitz, 1970) including attention to the personality of employees (Mullan, 1964). Those who work with the aged should be flexible, secure and should accept the aging process (Mullan, 1964). Adequate pay is important as well as special recognition for accomplishment (Schwartz, 1974). Then too it is vital to involve the staff in goal setting (Barns, Sack and Shore, 1973; Schwartz, 1974; Cohen, 1975). Such goals should be realistic in line with the limited possibilities in chronic illness (Wessen, 1965; Lawton, 1968). The model of care should not be that of an acute hospital where lack of cure means failure but a psycho-social health model focusing on total person care (Shore, 1976a). Schwartz (1974, p. 51) suggested,

> The best staff people, the most dependable, most prized staff people are those who have captured in some degree the sense of mission (quality care) within the operation, who have come to understand and appreciate the more exemplary objectives in the care of the aged and who have a deepening sense and appreciation of their own roles, their own contributions, and their own importance in the effort to attain such goals.

Morale and quality of care may also be affected by staff/patient ratio. The staff/patient ratio varies a great deal among different homes. In one study the range was from one employee for every five residents to two and a half employees for every resident (Tobin, 1964). A number of specialized personnel such as physical therapists, occupational therapists, social workers and activity directors are found in some institutions; none in other institutions. The training and attitudes of the administrator are another important factor in shaping staff attitudes and social environment (Holmberg and Anderson, 1968; Lawton, 1970b).

Program. One of the most unfortunate aspects about nursing homes is that many offer nothing more than custodial care. Treatment programs to deal with social and psychological needs of residents are often nonexistent (Shore, 1962; Kalish, 1975; Burnside, 1976b). In the words of Shore (1962, pp. 16-17),

> The traditional facility, lacking a realistic philosophy of therapy and lacking even a semblance of program, contributed to the pessimistic attitude toward institutions [the end of the road] as well as to the conviction of hopelessness relative to the recuperative powers of older persons.

Recently the "orientation has shifted from custodial to therapeutic" (Kahana, 1971, p. 51). Kahana (1973) called for two levels of program. First would deal with health problems (both physical and emotional); it should utilize the best medical and psychological knowledge as well as physical and occupational therapy. In addition there should be "a more holistic emphasis . . . on the therapeutic potential of the total en-

vironment" (p. 286). A number of treatment programs have been tried in various institutions for aging and have demonstrated they can be used effectively. There are various group therapies including sensory training (Richman, 1969), remotivation (Barns, Sack and Shore, 1973) and unstructured group counseling (Burnside, 1969). Reality orientation may involve both group and one-to-one efforts (Burnside, 1973b; Taulbee, 1976). Reality orientation is "an attempt to bring confused patients back to reality by reorienting them to basic information on a consistent basis" (Taulbee, 1976, p. 246). This includes both daily classes and frequent staff interaction with the patient around the clock. This is a conscious effort to counteract the usual situation in which confused patients are isolated and not talked to by staff. The use of this technique has provided results in terms of patient alertness as well as improved staff morale from "pride and satisfaction in day to day accomplishments" (Taulbee, 1976, p. 248). Remotivation involves promoting interaction through a discussion group. Each group session moves through five phases. First, a climate of acceptance is created as each participant is greeted by name. Next a poem or quotation relating to the topic is ready by a resident. Then comes a discussion of the world we live in, often using pictures or objects to stimulate thinking and talking. A period of sharing personal experiences follows, as residents are encouraged to reminisce. The session closes with refreshments to create an atmosphere of sociability (Barns, Sack and Shore, 1973). Sensory training is a structured group experience using stimuli to improve all five senses (Richman, 1969). Milieu therapy "operates on the principle that all of the social interpersonal processes within the institutional environment are important and relevant to the treatment of the individual" (Barns, Sack and Shore,

1973, p. 523). It attempts to shape the entire social environment as a treatment tool (Gottesman, 1973). It involves the expectation that residents will participate and assume responsibility. Types of milieu therapy include attitude therapy and reinforcement therapy (Barns, Sack and Shore, 1973). A simpler program is companionship therapy, involving systematic visitation by volunteers (Arthur, Donnan and Lair, 1973). The use of touch can be an important part of all work with the elderly (Lawton, 1968; Burnside, 1973b, 1976a).

Many homes for the aged have no organized activity program (Riley and Foner, 1968; Townsend, 1971). This has led to a situation in which the average resident spends over half of each day doing nothing (Gottesman and Bourestom, 1974). "The ever present problem of the institution," wrote Lawton (1973, p. 35), "is to increase the proportion of time spent by residents in what we euphemistically call 'meaningful activity.'" The problem is not that the residents are simply not interested in doing things. Many express a desire for more activities (Kleemeier, 1961; Riley and Foner, 1968). One factor is the need for trained professionals to implement a successful program (Kleemeier, 1961). Another is the need to get the word out to the residents that an event is taking place (McClannahan and Risley, 1974). It has been demonstrated time and again that activity programs can stimulate interaction, interest and increased morale on the part of residents (Donahue, 1964; Gottesman, 1973; Blackman, Howe and Pinkston, 1976). Donahue (1964) reported observations before and after the beginning of an activity program in a county home. Before the activity program, residents were observed to be "lethargic, bored, depressed, rejected, autistic, passive, unhappy individuals who had given up hope and were merely sitting out their days" (p. 188). The

program involved residents and community volunteers in planning a number of activities including a newspaper, occupational therapy, garden, motion pictures, auction, etc. In addition to residents' comments on how much happier they felt, behavioral changes were noted such as increased attention to personal appearance, more interaction and exercise of initiative. Of course, to accomplish these results a program must provide not just any activity but an activity in which the resident is interested (Find, 1957).

Zelditch (1962) suggested there are three essentials for happy living whether in one's own home or in an institution: status, role and relationships. The goal of a home for the aged is to become a community by developing a program that can provide status support, roles that give a feeling of accomplishment and satisfying social relationships. Kahana (1973, p. 282) proposed that humane treatment should promote "integration, goal setting and self-actualization." Schwartz (1974, p. 52) concluded,

> The meaningfulness of residents' lives, maximum opportunities for exercising options, an adequate level of stimulation [mental, emotional, and physical], and finally, compensation to the greatest extent possible for the many losses which they have been experiencing--these surely must have highest priority in care.

Summary

The disengagement theory suggested that due to declining energies and a realization of impending death, the elderly person and society withdraw from each other. Several pressures toward disengagement were proposed to be physical decline, psychological change, social change and role loss. Studies have found disengagement to occur in some cases but with no inevitability. Generally disengagement is accompanied by a decline in morale. A number of intervening variables have been found to

affect degree of disengagement and its relationship to morale; these include personal characteristics, environment and circumstances of disengagement. The period immediately preceeding death is suggested as the time when disengagement is most likely.

Although a key cause of disengagement was theorized to be death awareness, this variable has been largely ignored in the gerontological literature. Due to improved medical technology, the threat of death has been largely removed from most age groups and places. Certain age groups (especially the elderly) and certain places (notably hospitals and nursing homes) find death a frequent occurrence. Dying is more likely today to be a slow process. Attitudinal studies on death have shifted from fear of death to awareness of finitude. Every social group must come to terms with finitude; this is the case both in the wider society and in the subculture of a community or institution.

Although the same forces that cause disengagement may also bring admission to an institution, the literature on living environment is based not on the disengagement theory but on the activity theory. It is suggested that environment is important in shaping both activity patterns and morale. Environment is more crucial to those with reduced financial and health resources; thus its impact is crucial to the aging. Physical environment includes such dimensions as resource-rich--resource-sparse, public-private and isolated-integrated. Social environment may be evaluated in terms of segregate--non-segregate, congregate--non-congregate and institutional--non-institutional. All living environments for the elderly (retirement communities and old age institutions) are segregate

and congregate; thus they are likely to develop an age-distinctive subculture. Retirement communities are less institutional than old age institutions and thus likely to have more activity.

CHAPTER III

RESEARCH DESIGN

The Research Problem

Disengagement Reconsidered

Eighteen years have passed since disengagement was first proposed as a "tentative theory of aging" (Cumming et al., 1960, p. 23). In spite of a great deal of empirical research, the controversies aroused by this theory seem in many ways as far from solution as ever. Perhaps this is due to logical flaws in the theory as Hochschild (1975) suggested. Hochschild cogently argued that disengagement theorists inserted an "escape clause" that makes the theory unfalsifiable (p. 554). It was said that disengagement was universal and inevitable but that the form and timing would be variable. The question that needs to be asked is what aspects of disengagement are universal, what aspects variable? Unless this is specified, argued Hochschild, nothing can constitute counter-evidence to the theory. Highly active older persons may be said to be merely delaying their disengagement. Another problem is the fact that a number of processes that have been united under the single term disengagement do not all occur simultaneously. Hochschild noted, "Cumming and Henry treated age, closeness to death and awareness of death as if they were the 'same thing'" (p. 559). These are separate variables whose relationships to each other factors should be explored.

The present study begins with the assumption that disengagement is situational rather than universal. Patterns of engagement or disengagement are shaped by a number of personal and environmental factors. An important aspect of recent studies has been to analyze intervening variables that specify appearance and impact of disengagement. The central variable considered in this study is awareness of finitude.

Research Setting

The locale of the present study was eight residential settings with high concentrations of elderly persons. In such settings awareness of finitude may be expected to be particularly high. Elderly persons enter such facilities anticipating that this will be their last residence (Gubrium, 1975b; Gustafson, 1976). The frequent deaths of other residents serve as a reminder of the approaching end (Marshall, 1976). The environments studied ranged from highly institutional (nursing homes, extended care facilities) to non-institutional (retirement cottages and apartments). The activity level in the different environments may be expected to vary a great deal (Kleemeier, 1961). The research question is whether within these varying environments awareness of finitude is linked to disengagement.

The literature on retirement communities and old age institutions is based not on disengagement theory but on activity theory. These studies assume that aging persons do not willingly disengage. They suggest that if aging persons are deprived of roles and activities due to failing health or a stimulus-sparce environment lowered morale will result. This literature suggests that residents should not be allowed to withdraw. Heighten the stimuli, get the residents involved in activity

and therapy programs, interact with them--these are the recommendations to institutional staffs (Donahue, 1964; Gottesman, 1973; Howe and Pinkston, 1976). The problem with such recommendations is that they assume continuing competence (Gubrium, 1973). They assume it is within the elderly person's power to remain active if he so chooses. Too often they overlook both declining health and eventual death. The current study suggests the possibility that both activity and disengagement models may be useful in the residential setting. Among those residents who are less aware of finitude, the activity predictions are theorized to apply. Disengagement is not expected to be evident unless forced by health or environmental factors. Among those who disengage lowered morale is predicted. On the other hand it is theorized that among patients high in awareness of finitude disengagement will be observed even when not forced by health loss. In this latter group low activity will not result in low morale.

Awareness of Finitude

A number of factors combine to suggest to the aging person that his death may be drawing near. Among these factors may be the deaths of friends and acquaintances (Bytheway, 1977), death of spouse (Munnichs, 1966), comparison of own age at which parents died (Marshall, 1975), advanced age, poor health or entrance to an old age institution or retirement community (Marshall, 1973). "Impending death is seen as posing problems for the individual in accepting death as an aspect of his identity" (Marshall, 1973, p. 142). The aging individual is forced to come to terms with the meaning of death (Reichard, Livson and Peterson, 1962). The finitude of life confronts him with a developmental problem which

positively resolved brings ego integrity but left unresolved leads to despair (Erikson, 1963). The realization of the approaching end prompts the person facing death to engage in a life review process in which past experiences, especially unresolved conflicts, are thought through and reintegrated (Butler, 1964). Thus awareness of finitude may be seen as a "triggering mechanism" initiating various processes of adjustment to impending death (Marshall, 1973, p. 142).

Awareness of finitude might conceivably be related to activity in either of two opposite ways. A person on realizing the shortness of time remaining to him might decide to do immediately all those things he had planned to do sometime and thus increase his activity. Or he might decide that a lot of his routine was unimportant and withdraw from all but the most highly valued activities and relationships (such as family interaction). Kastenbaum and Aisenberg (1972) reported a study of sick elderly persons in a geriatric hospital in which two patterns of response to awareness of finitude were observed:

> Some patients accepted their fate quietly, and gradually reduced their spheres of functioning. This predetermined disengagement was initiated by the patients themselves and allowed them to bring their affairs to order, and exercise psychological control over a more limited life space. Other patients also recognized the close prospect of death, but opted to remain involved with daily life activities. . . . Death would come, of course, but it would have to tap them on the shoulder and interrupt the business of life (p. 82).

Chellam (1964) found high awareness of death associated with lower interaction. On the other hand Munnichs (1966, p. 99) found familiarity with finitude associated with "renewed withdrawn engagement" with particular emphasis on social relations. Unfamiliarity with finitude Munnichs found to be linked to an empty existence with few social contacts. In line with the disengagement theory this study will hypothesize a decrease

in activity to accompany a heightened awareness of finitude.

Hypothesis 1. Among non-senile residents of selected old age living environments, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Control Variables

Elaboration is a logical process developed by Paul Lazarsfeld (1955) to help make sense out of relationships observed between two variables by introducing a third or test variable. The sample is divided into two subsets on the basis of the test or control variable. The relationship between the original two variables is then recomputed separately for each of the subsamples. Several test variables will be introduced to determine whether the relationship between awareness of finitude and activity count is spurious (i.e. the result of the association of both awareness of finitude and activity count with a third variable).

Age. The first test variable considered will be age. Age might conceptually be related both to awareness of finitude and to activity. Persons who are older may be expected to believe they have less time remaining before death (Marshall, 1973). A possible relationship between age and activity has been the focus of much of the disengagement literature (see Chapter II). The conflicting findings may be due to failing to consider awareness of finitude as an intervening variable. It is theorized that by a given age some but not all elderly persons have become highly aware of finitude. Among those who have become highly aware of finitude activity level is expected to be lower than among those of the same age who are not highly aware of finitude. Thus it is hypothesized that among groups dichotomized by age the inverse relationship

between awareness of finitude and activity will be maintained.

Hypothesis 2. Within groups dichotonized by age, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Health. The second test variable to be considered will be health. It has been frequently observed that health is related to activity level (Maddox and Eisdorfer, 1962; Shanas et al., 1968; Tallmer and Kutner, 1969; Johnson, 1971). It might be theorized that poor health would lead to heightened awareness of finitude (Marshall, 1973). This is a particularly important control variable to consider in a study involving institutional residents, for poor health has been frequently reported among institutional residents (Riley and Foner, 1968; Zimmer, 1975). Two different types of health measures have been used in different studies. One type is an objective measure involving a professional evaluation of health status (Maddox and Eisdorfer, 1962) or degree of behavioral incapacity (Shanas et al., 1968). The other type measure is a subjective rating. The respondent is asked to rate his health on a closed-ended list of categories. This type of measure has been used in a number of studies (Edwards and Klemmack, 1973; Spreitzer and Snyder, 1974). Most studies have found a close relationship between objective and subjective measures of health (Gubrium, 1973). However, self-ratings of health are generally more favorable than objective measures (Riley and Foner, 1968). Activity level has been found to be associated with both self-ratings of health (Shanas et al., 1968) and objective measures (Maddox and Eisdorfer, 1962). This study will use both a subjective measure of health and an objective rating of degree of physical incapacity. It hypothesizes that when residents are dichotomized according

to either perceived health or physical incapacity, the relationship between awareness of finitude and activity will still be found.

Hypothesis 3. Within groups dichotomized by perceived health, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Hypothesis 4. Within groups dichotomized by physical incapacity, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Sex. A third test variable to be introduced will be sex. The differing modal patterns for men and women in terms of major roles may well bring about different activity patterns in aging (Cumming, 1963). It has been observed that very few generalizations in the study of aging have applied equally to men and women (Adams, 1971). It is hypothesized that the inverse relationship between awareness of finitude and activity will apply for both men and women.

Hypothesis 5. Among male residents, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Hypothesis 6. Among female residents, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Activity and Morale

The conflicting findings regarding association between activity level and morale have been noted (see Chapter II). Perhaps part of the discrepancy may be explained by introducing awareness of finitude as a test variable. Awareness of finitude may specify whether or not a relationship between activity and morale will be found. Among persons

who are low in awareness of finitude it is hypothesized that activity and morale are positively associated. For these persons death awareness is not a major factor. The activity theory assumptions concerning the importance of "activities that provide status, achievement and recognition" (Kutner et al., 1956, p. 104) are applicable to this group. When disengagement is forced on this group due to poor health or resource-sparce environment, it is likely to be associated with lowered morale. On the other hand persons who have been confronted with the reality of their own death are theorized to withdraw from some outside activities in order to provide opportunity for introspection. It is theorized that when lower activity rates are found in this latter group they will be congruent with individual needs and desires and therefore not related to lowered morale. With this latter group the disengagement theory is applicable. Thus it is hypothesized that among persons high in awareness of finitude there will be no relationship between activity and morale.

Hypothesis 7. Among residents low in awareness of finitude, those with above median activity count will be significantly more likely to be above median in morale score than those with below median activity count.

Hypothesis 8. Among residents high in awareness of finitude, those with above median activity count are not significantly more likely to be above median in morale score than those with below median activity count.

Methodology

Instrumentation

It has been observed that self-administered questionnaires are "particularly ineffective with older people due to the prevalence of arthritis, vision and other difficulties" (Marshall, 1973, p. 39). Mun-

nichs (1966, pp. 33-34) proposed that with the elderly "the method will have to offer every opportunity to the verbal factor" (italics added by Munnichs). The current study used a structured interview schedule. At the time of the interview, the interviewer also observed two behavioral indicators of morale as described below. In addition the head nurse was asked to rate each subject in regard to physical restriction and mobility status. In facilities where there was an activity director, this person was asked to rate each subject's level of activity. In those institutions where there is no activity director, the head nurse was asked to give the activity rating.

The chief data gathering instrument was a structured interview schedule. Items were arranged from those easiest to answer (age, activities) through those that required more thought (morale items, perceived health) with the most sensitive item (awareness of finitude) last. The first item was an open-ended question, "What is your age?"

Activities in which the subject participates were measured first with an open-ended question, "What activities do you take part in? What do you enjoy doing?" After the respondent had listed as many activities as he could think of, the interviewer asked about any items on the following list that had not been mentioned: watching television or listening to the radio, reading, writing letters, playing games, visiting, arts and crafts, buying things, parties and religious services. The activity count consisted of one point for each activity in which the subject reported participation.

Morale was measured by two different scales. The Affect Balance Scale (ABS) was developed in the early 1960's by the National Opinion Research Center; it was first reported in a pilot study by Bradburn and

Caplovitz (1965). Its use with several different samples ranging in age from 21 to 59 was reported by Bradburn (1969). Moriwaki (1974) tested the validity of the scale with two elderly samples. She found it correlated with the Rosow Morale Scale ($r = .61$; $p < .01$) and with Avowed Happiness (gamma = .40). It was recently used in a longitudinal study of elderly women (Graney, 1975). The Affect Balance Scale consists of 10 items, five measuring positive affect and five measuring negative affect. This reflects the assumption by Bradburn and Caplovitz that the relative number of positive and negative feelings determines happiness (Wilson, 1967). There have been some slight revisions to the scale since its introduction. With one modification, the form used was that used by Moriwaki (1974, p. 75):

> I am interested in the way people are feeling these days.
> Looking at your present life situation have you ever felt:
> 1) Particularly excited or interested in something?
> 2) So restless you couldn't sit long in a chair?
> 3) Proud because someone complimented you on something you had done?
> 4) Very lonely or remote from other people?
> 5) Pleased about having accomplished something?
> 6) Bored?
> 7) On top of the world?
> 8) Depressed or very unhappy?
> 9) That things were going your way?
> 10) Upset because someone critized you?

The second item, "So restless you couldn't sit long in a chair," seemed inappropriate for a sample in which some subjects would be bedfast; so it was shortened to "Very restless." Scoring was two points for agreement with positive items, one point for undecided, zero for disagreement. Scoring was reversed on negative items. Thus the possible range was zero to 20.

The second morale scale was a five item scale measuring Interest in Personal Gratification (IPG). This scale was developed for use in

this study. Internal validity was measured by analyzing the correlation of the items with each other and with the total IPG score. External validity was gauged by analyzing the correlation of each IPG item and of the IPG total score with the ABS total. The IPG consisted of three questions and two behavioral indicators focusing on the resident's interest in his surroundings and in events of everyday life. The items and scoring are as follows:

Observations

1) Orderliness of personal belongings in resident's room
   0 Unkempt
   1 Moderate
   2 Neat and orderly

2) Attention to personal grooming
   0 Unkempt
   1 Moderate
   2 Neat (Hair combed; for women--makeup; for men--shaved)

Questions

1) Do you have things here in your room (apartment) that mean a lot to you?
   0 No
   1 I guess so
   2 Yes, very much

2) Do you enjoy your meals?
   0 No
   1 Sometimes
   2 Yes

3) What is your favorite food?
   0 I don't have any
   1 Uncertain
   2 Any food named

The five items each scored zero to two gave a possible range of zero to 10 for the scale total.

Perceived health was measured by the following item: "Would you say that your health in general, is excellent, good, fair or poor?"

Similar items have been used in a number of studies (Cavan et al., 1949; Shanas, 1962; Edwards and Klemmack, 1973). This particular item was taken from Spreitzer and Snyder (1974). Scoring ranged from zero for "Poor" to three points for "Excellent."

Awareness of finitude was measured with a closed-ended question used by Chellam (1964) and Marshall (1973, 1975):

> Which one of these would you say about your own future?
> 1) I shall be around for some time yet; more than 10 years.
> 2) I have a while longer; at least 5 to 10 years.
> 3) Not too much longer; less than five years.
> 4) The end may be any time now.

Marshall (1973) used this as one of three measures of awareness of finitude. The second was an open-ended question, "How old do you think you will live to be?" The third was a procedure devised by Chellan. Subjects were given a sheet of paper with a straight line marked as below:

Birth ———————————————————————————— Death

They were instructed, "Suppose this is your life line. Could you mark an "X" at the point where you think you are right now?" In comparing the three items Marshall (1973) noted that the more specific the answer called for, the lower the response rate. The life line got the most responses but interpreting it was difficult. The open-ended item asking for predicted age at death was the least useful; only 31 of 79 subjects answered at all and the answers were often vague. The closed-ended item produced 50 codeable responses from Marshall's 79 subjects and produced easily interpretable results. This was the item selected by Marshall (1973, 1975) as the best operational measure of awareness of finitude. Scoring is on a four point scale from zero for "I shall be around some time yet; more than 10 years" to three points for "The end may be any time now."

The head nurse rated the physical limitations of each subject using the Katz Activity of Daily Living (ADL) Scale (Gottesman and Bourestom, 1976). This scale asks a knowledgeable staff person to rate each resident as needing no help, some help or much help on each of six activities of daily living (bathing, dressing, toileting, transfer, continence and eating). For each activity, no help was scored zero, some help received one point and much help two points. Thus the total scale score for the six activities had a possible range of zero to 12. The head nurse also rated each subject's mobility status. Four fixed-choice response categories were provided: "Can walk unassisted," "Needs walker or other assistance," "Needs wheelchair" or "Bedfast." The range was zero ("Can walk unassisted") to three ("Bedfast").

The activity director where available (otherwise the head nurse) rated the amount of time the resident spends engaged in activities (either in his room or elsewhere). The fixed-choice alternatives were "None," "Low level of activity," "Moderate level of activity" or "High level of activity." Scoring was from zero for "None" to three points for "High level of activity."

Data Source

The population sampled was composed of the non-senile residents of eight residential facilities with high concentrations of elderly residents. Facilities were selected to represent a wide variety of living environments for the elderly. They included a non-profit retirement village, a non-profit home for the aged, two proprietary rest homes, two proprietary nursing homes, a Veterans Administration nursing care unit and an extended care facility attached to a municipal general hospital.

The facilities chosen represent a cross section of both types of sponsorship (non-profit, proprietary and public) and levels of care (independent living, congregate and nursing care). Independent living units are those where residents live in cottages or apartments. In these units the residents manage all their own daily living needs. They do most of their own cooking, although they may eat in a congregate dining facility when they choose to do so. The congregate level of care consists of rooms or apartments without cooking facilities in which the residents eat all meals in a common dining room. It is expected that residents in these units require some services in personal care or housekeeping; however, they do not require intensive nursing care. The nursing care unit offers highest level of care; licensed nursing care is provided. Patients are expected to need much personal care. Meals are prepared in a central kitchen; ambulatory patients take their meals in a central dining hall while nonambulatory receive trays in their rooms. The retirement village and home for the aged contain all three levels of care. The rest homes represent the intermediate or congregate level of care. The nursing homes, Veterans Administration nursing care unit and the extended care facility all represent the maximum level of care. In addition to representing a variety of types of sponsorship and levels of care, sites were selected on the basis of accessibility to the project home base and cooperation on the part of the administration. A total sample of 120 persons was interviewed, consisting of 10 each from the proprietary and public facilities as well as 10 residents from each of the three levels of care in the retirement village and home for the aged (see Table VII).

TABLE VII

SAMPLE DISTRIBUTION BY LEVEL OF CARE, SPONSORSHIP AND FACILITY

	Independent	Congregate	Nursing Care
Non-Profit			
Retirement Village	10	10	10
Home for the Aged	10	10	10
Proprietary			
Rest Home 1		10	
Rest Home 2		10	
Nursing Home 1			10
Nursing Home 2			10
Public			
Veterans Administration Nursing Care Unit			10
Extended Care Facility			10

The residents to be interviewed in each institution were selected by the administrator or head nurse according to the following criteria: 1) well enough oriented to be able to respond meaningfully to questions; 2) strong enough to be able to visit for 10 minutes and 3) at least 55 years of age. Of those selected only seven refused to cooperate; another respondent was secured to replace each of these. The refusal rate of six percent was extremely low compared to other studies of elderly populations. A refusal rate of 17 percent was reported by Cumming and Henry (1961) and 20 percent by Munnichs (1966). Refusals were no more

likely than the sample to be above or below median in age, in need for daily living assistance or in mobility status; however, six of the seven refusals were below median in activity rating. From the researcher's observations the sample interviewed seemed adequately representative of the total non-senile populations of the institutions studied in terms of age, health and activity patterns. Prediction to a larger population is not the goal of this research.

Retirement Village. The retirement village, sponsored by a non-profit religious organization, opened in 1970. Located in a medium size city, it provides a beautiful living environment for its upper middle class residents. Most of its residents live in independent living units--either leisure apartments or cottages. Apartments are located in the two story main building or the nearby Annex. These range from one to four rooms with a kitchenette. Cottages are located in 26 buildings surrounding the main building. Cottages are one or two bedrooms with living room, dining area and kitchen; varying floor plans are available. Apartments and cottages together provide approximately 300 living units. Although they have their own cooking facilities, residents may eat in the main dining hall when they choose to do so. The intermediate level of care consists of 30 apartments for semiambulatory persons. These units have no kitchen facilities. The Health Center or nursing care wing has 50 beds with private, semi-private and three-bed rooms. There are three separate dining rooms for the three levels of care. Maid service is provided in all units.

The village provides a vast array of resources in terms of physical plant, staff and program. It has a woodworking shop, hobby shop, lapidary shop, museum, library, chapel, theatre, shuffleboard courts, barber

shop, beauty shop, physical therapy room and swimming pool. Professional staff includes administrator, staff physician, director of nursing, activity director, food service director and chaplain. The multi-faceted program at the village includes films, concerts, chapel, painting classes, a band composed of residents, art classes, rock polishing, wood-working, swimming, flower gardening, etc. Transportation is provided for residents who wish to take part in activities outside the village, such as church services, concerts, basketball games, shopping, bowling, etc.

Persons desiring to enter the village are expected to make a contribution at the time of entering as well as paying a monthly fee. The researcher was told the contribution was voluntary and that some persons unable to make any contribution have been admitted. However, a brochure lists the gifts appropriate for units of varying sizes. These costs range from 12,500 dollars for an efficiency apartment to 40,000 dollars for a four room apartment. Cottages are 25,000 dollars for one bedroom and 30,000 dollars for two bedrooms. Monthly rates for one person range from 287 dollars for an efficiency apartment to 535 dollars for a four room, two bath apartment. Cost for a couple is 200 dollars more than the cost for one person. Prices for semi-ambulatory and Health Center patients is determined on the basis of amount of care required.

Home for the Aged. This denominational home began as a congregate home in 1957. The congregate home has 39 rooms, all for single occupancy. A cluster of cottages for those desiring independent living but access to the congregate facilities began in 1958 with gradual additions since that time. As of May 1977 the 18 cottages and 5 duplexes housed

47 persons. The largest and newest wing is the skilled nursing unit. This 81 bed unit was opened in December 1974. Although the home also has three levels of care, it differs a great deal from the retirement village. Whereas in the retirement village the vast majority are in the apartments and cottages, the largest number in the home are in the nursing unit. At the village everyone initially enters a cottage or apartment and moves to intermediate or intensive levels of care if needed later. At the home persons may enter initially at any of the three levels of care. Another noticeable difference is in furnishings. Both in lounge areas and in resident quarters the furnishings reflect a middle class orientation at the home in contrast to the highly ornate furnishings at the village.

A number of specialized staff are in evidence in the home including administrator, director of nursing, dietitian and social service/activity director. At the time of this study there was also an assistant administrator doing an administrative internship. The numerous specialized activity rooms available at the village are absent in the home. However, a full program of therapy and activities is offered. The investigator visited both remotivation and reality orientation sessions in the nursing unit; an exercise class and physical therapy are also offered. Activities include religious services, parties, crafts, a resident newspaper, concerts, study groups, quilting and games. Cottage residents engage in both flower and vegetable gardening. In addition many residents travel outside the home to engage in such activities as volunteer work, continuing education, church work, organization meetings and special programs. The mini-bus takes residents on tours to see the foliage in spring and fall.

Those wishing to move into a cottage may build their own on a lot leased from the home or they may apply to rent a previously occupied cottage when its occupant must move into the congregate home. Cost of building a new cottage or duplex is now about 20,000 to 25,000 dollars. To move into a "second generation" dwelling the cost ranges from 15,000 dollars for one person in a one bedroom cottage to 19,000 dollars for two persons in a two bedroom dwelling. There is a maintenance fee of 75 dollars per month. If a cottage resident moves into the congregate or nursing areas, he pays half the regular cost; the other half is deducted from his original investment until such time as the total investment is used up; after that he would pay full price. Rooms in the congregate home range from 475 dollars to 540 dollars per month depending on care needed. In the nursing unit the cost ranges from 20 dollars a day for a semi-private to 23 dollars a day for a private room.

Rest Homes. The first rest home visited is in an old building built years ago as a private hospital. It next served as a nursing home, then became a rest home in 1970. There are 24 residents in quarters ranging from single to four person rooms. The furnishings suggest lower class clientele and in fact most of the residents are paid for by social service. Rates paid by social service are 329 dollars per month for ambulatory persons, 339 per month for semi-ambulatory and 349 for bedridden persons. There are no licensed nursing personnel. An activity coordinator is provided 12 hours per week--the minimum required by the state licensing authority. Activities include religious services, crafts, physical therapy and bingo. Groups are sometimes taken for an outing, such as to community events and a monthly dinner provided by a local church. The sparsity of activity resources within the home is ameliorated

somewhat by the location of the home on Main Street of the small town where it is located. A drug store across the street and a few other shops provide a place for residents to go shopping.

The second rest home studied is on the outskirts of the same small town. Built 25 years ago as a nursing home, it is a more attractive building than the other rest home. It is owned by the same person as the first rest home; it also changed from a nursing home to a rest home in 1970. The primary difference in the care offered now compared to when it was a nursing home is that since there are no licensed nursing personnel, intravenous fluids cannot be giving without hiring a special nurse. The administrator and her aides are proud of the care they provide. They make it a point to keep people up (in wheel chairs if necessary) rather than letting them remain in bed; they point with pride to the fact they have no bedsores among their residents, although some are immobile. The administrator and her staff are constantly engaged in continuing education programs. The 29 beds in the home are all filled, and there is a long waiting list. All but two residents are financed by social service; rates are the same as in the other rest home. Accommodations are private, semi-private or ward. Activities provided include church services, crafts, monthly birthday parties, bingo, physical therapy and outings.

Nursing Homes. Both nursing homes studied occupy relatively new buildings in the shape of an "X" with four wings and a nursing station in the center. Both are in the same university community. The first was built in 1969; it has 104 beds of which 65 were occupied at the time of the study (July 1977). Cost ranges from 480 dollars for a semi-private room to 510 dollars for a private room to 550 dollars for a

double room occupied by only one person. An energetic activity director at the home recruits church groups to provide programs for the residents. Activities include singing, church services, birthday parties, bingo and arts and crafts. One resident has a garden in the back yard of the home, producing vegetables for the dining room. Other residents are frequently observed playing dominoes.

The second nursing home had a much higher occupancy rate at the time of the study. Of 102 beds, 100 were occupied. This home was built in 1967. Cost is 480 dollars for semi-private and 705 dollars for private. Special staff includes both activity director and social service worker. The social service worker has been instrumental in recruiting outside groups to provide programs or to assist with transportation for outings. Sixteen residents are retarded persons admitted from a nearby state school. Several of these residents participate daily in the county sheltered workshop. Activities in the home include church services, bingo, crafts and an annual rummage sale. Residents may also be observed engaged in handwork and dominoes.

Veterans Administration. Although the Veterans Administration has long offered domiciliary (congregate) care, the nursing care unit is a relatively new but expanding service. Begun with a 24 bed experimental unit in Fargo, North Dakota, in 1964, there are now 7000 nursing care beds in 88 facilities. Nursing care units are now included in all new Veterans Administration hospitals. Congress has mandated the Veterans Administration to provide 10,000 nursing care beds by 1980 and 20,000 beds by 1985. The growing number of beds is due to the fact that vast numbers of World War II veterans will be reaching age 65 within the next few years. Any veteran age 65 or above is eligible for nursing care at

government expense regardless of whether his disability is service related. The nursing care unit has registered nurses around the clock. Occupying one wing in a general hospital it has available a wide variety of support services such as occupational therapy, physical therapy, laboratory, X-ray facilities and dietitian. The particular nursing care unit visited has 39 beds, all occupied at the time of the study (October 1977). It is situated in a 350 bed hospital in a small city. It has been recently repainted and refurbished with new furniture and pictures on the walls. There is no activity director. Religious services and movies are provided by the chaplain. Most of the other activities reported by patients center around therapy programs such as occupational therapy or physical therapy. Although the goal of treatment is to prepare patients to be able to return to the community, most patients are in fact long term residents. Most of the current residents were already in the unit when the present head nurse arrived 15 months ago.

Extended Care Facility. The extended care facility occupies one floor of a new rehabilitation center adjoining a 647 bed municipal hospital in a medium size city. Built in 1972 the rehabilitation center includes a wide range of therapy programs including occupational therapy, physical therapy and speech therapy. Specialized staff include therapists, social workers and chaplain. The 50 bed extended care facility is used by those who are able to leave the acute hospital but are not yet ready to return home. Several of the patients interviewed here had suffered a broken hip and had been in the hospital about three weeks before coming to the extended care facility. There were also some stroke victims and one terminal cancer patient interviewed. Cost of the

extended care is approximately 100 dollars per day. Since conventional health insurance usually does not provide coverage for extended care, 85 to 90 percent of the patients are on Medicare. No activity director is provided by Medicare. The only group activities are meals (for those able to go to the dining room) and an occasional religious song service conducted by the chaplain. The primary activity reported by the patients interviewed was therapy. Patients in the extended care facility remain a much shorter time than those in the Veternas Administration nursing care unit. The average stay in the extended care unit is 20 days, for patients are not allowed to remain longer than is medically necessary.

Data Analysis

In the words of the anthropologist Du Bois (1960, p. xviii), "Theory dictates the questions asked; methods are determined by the nature of the proof considered conclusive." "Statistical tests," contended Wallace (1971, p. 81), "provide the most 'objective,' most rigorous and most sensitive rules available for measuring the fit between hypothesis and finding." The statistics used to evaluate the research hypotheses will be described; but in order to select the appropriate statistics, the researcher must first consider the problem of levels of measurement.

Levels of Measurement. Nominal measurement establishes an exhaustive and mutually exclusive classification system but does not imply difference in ranking between categories. Ordinal measurement establishes a definite ordering between categories (more or less, higher or lower). Interval measurement in addition to rank order implies a defined, standard unit of measurement so that equivalence or nonequivalence of intervals between values may be determined. A ratio measure has all the charac-

teristics of an interval scale with the addition of a meaningful zero point (Loether and McTavish, 1974a). In this study most variables are ordinal (mobility status, activity rating, activity count, self-perceived health and awareness of finitude). Age is a ratio measurement. The affect Balance Scale and Katz Activity of Daily Living Scale are at least ordinal and have sometimes been treated as interval measures (Moriwaki, 1974; Gottesman and Bourestom, 1976). Sex is the only nominal level variable in the study; however, it is a dichotomy in that it has only two possible values. Nie et al. (1975, pp. 5-6) noted the special characteristics of a dichotomy:

> . . . any dichotomy can be treated as though it were an interval-level measure. . . . Although a rank order may not be inherent in the category definitions, either arrangement of the categories satisfies the mathematical requirements of ordering. . . . The requirement of a distance measure based on equal-sized intervals is also satisfied because there is only one interval, naturally equal to itself. Consequently, a dichotomy can be treated as either a nominal, ordinal, or interval-level measure.

Although the subject of some controversy, the usual guideline is not to use statistics designed for a higher level of measurement with data measured at a lower level; failure to meet the assumptions of a statistic may cause logical errors. Technically, nominal level statistics might be used with any data; however, using statistics designed for lower levels of measurement with data measured at a higher level does not utilize all the information in the higher level data (Loether and McTavish, 1974a). Thus the preferred course is to use statistics at the highest level supported by the data. For this study ordinal level statistics were used where available. When an appropriate ordinal statistic was not available, a nominal level statistic was used.

Univariate Analysis. In preparation for data analysis interview responses were coded, entered on coding sheets and keypunched. The data analysis was performed on a 370 IBM computer using Statistical Package for the Social Sciences (SPSS), a set of programs described by Nie et al. (1975). The first step in data analysis was univariate analysis, in which each variable was studied individually. A frequency distribution was computed for each item to determine the range and frequency of responses. The univariate distribution may be described in three ways: measures of central tendency, measures of dispersion and form of distribution (Loether and McTavish, 1974a; Nachmias and Nachmias, 1976). The measure of central tendency most appropriate for ordinal level data was considered to be the median. The measure of dispersion used was range. The form of the relationship was examined to see if it was unimodal, bimodal or multimodal (having one, two or more peaks). The univariate analysis was used to describe the sample, to describe groups within different levels of care and to compare the sample to other research findings.

Bivariate Analysis. In bivariate analysis the goal is to establish whether an association exists between pairs of variables. Four characteristics of the bivariate association have been described by Loether and McTavish (1974a, p. 186):

(a) Whether or not an association exists.
(b) The strength of that association.
(c) The direction of the association.
(d) The nature of the association.

An association exists if there are different distributions of one variable within categories of the other variable. A significance test may be used to determine if observed differences in the sample might have

occurred by chance if there were no association in the population. The strength of the association refers to the magnitude of the difference in distribution of one variable between categories of the other variable; the larger the difference, the higher the degree of association (Nachmias and Nachmias, 1976). Measures of association are used to determine the strength of covariation. Such measures usually vary from minus one to plus one. An association of 0.0 to .19 will be considered negligible; .20 to .39, weak; .40 to .69, moderate; and .70 to 1.0 will be interpreted as a strong relationship. The direction of the association refers to whether there is a tendency for higher values of one variable to be associated with the lower values of the other variable or with its higher values. Positive association indicates that as one variable increases in value the other also increases. Negative association means that as one variable increases the other decreases. The sign of the measure of association indicates the direction of the association; a minus sign indicates negative association while a plus sign means positive association. Finally the nature o f the relationship refers to the pattern of the data, whether linear or curvilinear (Loether and McTavish, 1974a).

The significance tests used in this study to determine the existence of relationships included chi square as well as the significance tests associated with the measures of association. Chi square does not measure strength of relationship; it simply indicates whether the observed relationship is likely to be due to chance. It may be used with any level of measurement but is most frequently used with contingency tables in which two nominal level variables have been cross-tabulated. Chi square tests the null hypothesis that the two variables are independ-

ent rather than interrelated. It "measures the extent to which the observed frequencies . . . deviate from those frequencies that would be expected if the null hypothesis were true" (Loether and McTavish, 1974b, p. 211). Chi square does not require a normally distributed population (Loether and McTavish, 1974b). Several assumptions are involved in the use of the chi square test. The observations are assumed to be an independently drawn random sample of the population. Since an adequate sample size is required if the sample distribution is to approximate the chi square sampling distribution, it is assumed that no expected frequency in the contingency table will be less than five. In order to maximize cell sizes, variables to be evaluated with chi square were dichotomized as close to the median as possible. Finally, "it is assumed that the underlying distribution of the computed chi square statistic is continuous" (p. 217) (Loether and McTavish, 1974b). This assumption is not adequately met for two by two tables; therefore, a correction for continuity has been suggested for such tables. This correction reduces the absolute difference between observed and expected frequencies by .5; it thus reduces the value of the computed chi square and makes a significant finding less likely in borderline cases (Loether and McTavish, 1974b). This correction was used in this study.

Measures of association are used to determine both strength and direction of the relationship. Two measures of association for ordinal level data are Spearman's rho and Kendall's tau. Neither requires a normal distribution (Nie et al., 1975) or a linear relationship (Blalock, 1972). Spearman's rho essentially uses the formula for product-moment correlation but applies it to ranks rather than to raw scores. Kendall's tau is derived by examining all possible pairs of cases and

noting whether the ranks are in the same order (concordant) or opposite order (discordant); it gives the proportion of observed same order pairs to the maximum possible number (Blalock, 1972). Although these two statistics usually give very similar results, Spearman's rho gives "a closer approximation to product-moment correlation coefficients when the data is more or less continuous, i.e., not characterized by a large number of ties at each rank," while Kendall's tau gives somewhat more meaningful results when there are a large number of ties (Nie et al., 1975, p. 289). Kendall's tau usually gives slightly lower absolute values than Spearman's rho. The differences in the two measures are minimized by using as many categories of each variable as possible, thus reducing the number of ties (Blalock, 1972). In this study all correlations were computed on ungrouped data in order to minimize the number of ties. Both Spearman's rho and Kendall's tau have an associated significance test.

In discussing the form of the relationship between ordinal level variables it is more appropriate to use the term "monotonic" than linear (Blalock, 1972, p. 415). The concept of linearity assumes interval level data. A monotonic relationship is one in which one variable remains the same or shifts in a constant direction (but not a constant amount) as the other variable increases (Loether and McTavish, 1974a). This may be either monotonic increasing or monotonic decreasing. A monotonic increasing function is one in which one variable always increases or remains the same as the other increases. One example would be the logarithmic function $y = a + b \log x$. A monotonic decreasing function is one in which one variable tends to decrease as the other increases. A relationship which is not monotonic would be

one with one or more bends or reversals of direction, such as a parabola or third-degree equation (Blalock, 1972).

Multivariate Analysis. Multivariate analysis looks at the interrelationships among three or more variables. One type of multivariate analysis is elaboration, in which the relationship between two variables is examined within each category of a third variable (Lazarsfeld, 1955; Loether and McTavish, 1974a). For this procedure the sample is divided into subsets on the basis of the control or test variable. The relationship between the original two variables is then recomputed separately for each of the subsamples. In this study the relationship with each category of the control variable was analyzed using the same significance tests and measures of association that were used in studying the bivariate distribution. These partial relationships were then compared with the original zero-order relationship to see whether it was weakened, strengthened or left unchanged.

Another task of multivariate analysis is to sort out the separate influences of different independent variables on one dependent variable. Although there are powerful techniques such as multiple regression for interval level data, less statistical tools have been developed for multivariate analysis with lower levels of measurement. Coleman (1964) developed the procedure of dichotomous multivariate analysis, a data reduction technique that provides an individual parameter measuring the influence of each of three independent variables on a dependent variable. For this procedure all variables are dichotomized. An eightfold table is constructed based on the possible combinations of the three independent variables. Within each cell the proportion with the dependent

attribute is calculated. The equation for each effect parameter is "the average of four differences: the differences between pairs of proportions which are alike except that the parameter in question is present in one and absent in the other" (Coleman, 1964, pp. 196-97). The procedure also gives the random variation toward each state of the dependent variable. There is an accompanying significance test for each parameter.

Summary

Wallace (1971) described scientific research as a circular process. Beginning with a body of theory the researcher deduces research hypotheses. To test the hypotheses a research instrument must be devised, a study population defined and sample drawn. Observations must be made; through sample summarization and parameter estimation, empirical generalizations are derived. Findings are compared with hypotheses to determine if the fit is satisfactory. These decisions about hypotheses are used to confirm, falsify or modify the theory from which the hypothesis was deduced. In this study the theoretical base was the disengagement theory (Cumming and Henry, 1961). Hypotheses were derived focusing on awareness of finitude as a variable specifying degree and impact of disengagement. An interview schedule was developed and administered to elderly persons residing in a variety of age-concentrated living environments. Data analysis used statistical tests deemed appropriate. The findings are described in Chapter IV.

CHAPTER IV

RESEARCH FINDINGS

Preliminary Observations

Evaluation of Questionnaire Items

Health Measures. Two objective health measures were used. One was the Activity of Daily Living (ADL) Scale, in which the subjects were rated as to whether they needed no help, some help or much help in each of six activities. Each activity was scored from zero for no help to two for much help. The possible range for the total scale was zero to 12; the observed range was the same. The other measure was a four point rating in which the subjects were evaluated as to whether they could walk unassisted, needed a walker or other assistance, needed a wheelchair or were bedfast. These two measures were strongly correlated; Kendall's tau was .73; Spearman's rho was .83; both were significant at the .001 level. Since the ADL Scale was free to vary over a wider range of values and covered a broader range of activities, it was used as the objective measure of health in the following analysis.

The subjective measure of health was a four point item on which the subjects rated their overall health as excellent, good, fair or poor. This item was statistically independent of the objective measures. The correlation with the ADL score was weak; Kendall's tau was -.22; Spearman's rho was -.26; both were significant at the .03 level. The nega-

tive relationship was due to the fact that larger values on the health self-rating indicated better health while larger values on the ADL score indicated greater physical incapacity.

One health item not included on the interview schedule emerged from the interview process. The researcher recorded all responses of the subjects as nearly verbatim as possible. It was noted that as the subjects were asked whether they participated in particular activities they would frequently volunteer information as to a health restriction that made a given activity impossible for them. It was often stated or implied that they formerly engaged in the activity and would still enjoy it if physically able. Approximately half of the subjects mentioned physical disabilities that restricted them from one or more activities. Since it seemed this information was crucial to the question of whether observed disengagement was chosen by the subjects or forced upon them, self-reported disability was used in the data analysis. Its primary use was as a control variable in the elaboration of the relationship between activity level and morale. Self-reported disability was an independent factor correlated moderately with ADL score and weakly with self-rated health. The association with ADL was .49 according to Kendall's tau and .58 according to Spearman's rho; both coefficients were significant at the .001 level. In the relationship with self-rated health Kendall's tau was -.33; Spearman's rho was -.38; both were significant at the .001 level.

Activity Measures. Activity count was the measure in which subjects were asked to name all current activities; then they were asked about participation in any unnamed activities on a list of nine activi-

ties available in most age-concentrated settings. All activities were scored one point; the range was 0 to 18. Activity rating was a four point scale in which the activity director or head nurse rated the subject as to whether he engaged in no activity, low level of activity, moderate level of activity or high level of activity. The correlation between activity count and activity rating was moderate; Kendall's tau was .39; Spearman's rho was .48; both were significant at the .001 level. Perhaps the reason why the correlation was not stronger might be that the activity directors may have been thinking primarily of more active and group-oriented activities, while the activity count included such passive and individual activities as television viewing, reading and letter writing. Then too the activity count dealt with number of activities but not with frequency, while the activity rating may have given more weight to frequency than to variety of activity. Activity count was the activity measure used in the analysis.

Morale Measures. Two morale measures were used. The Affect Balance Scale (ABS) has been validated for the general population (Bradburn and Caplowitz, 1965) as well as for the elderly (Moriwaki, 1975). This is a 10 item scale with five items measuring positive affect and five measuring negative affect. Scoring on the positive items was zero for no, one for undecided and two for yes; scoring was reversed on negative items. The possible range was 0 to 20; observed range was 4 to 20. When the correlation of each item to the scale total was computed, all items correlated positively. Five times correlated at a moderate level (.40 to .69); four items were weakly correlated (.20 to .39); and one item correlated negligibly (below .20). Weak and moderate correlations were all significant at the .001 level; only the

negligible correlation was nonsignificant. Thus it was concluded that nine of the ABS items contributed significantly to the scale total. The least valuable item was, "Do you ever feel proud because someone complimented you on something you had done?" This item was not a good discriminator between persons with high or low morale because most subjects (77 percent) gave a positive response on this question regardless of their overall morale. All items correlated significantly with their subscale (Positive Affect Scale or Negative Affect Scale).

The Interest in Personal Gratification (IPG) Scale was developed for this study. It consisted of two behavioral observations and three attitude items. All were scored zero to two, giving a possible range of 0 to 10. Observed range was 1 to 10. All items correlated positively with the scale total; strength of association was moderate for four items and weak for one item. It should be noted that each IPG item composed one fifth of the IPG scale score, while each ABS item composed only one tenth of the ABS total score; thus stronger associations between the items and the scale total for the IPG did not necessarily mean greater correlation among the individual items. There was more missing data on the IPG items than on the ABS items. For example, the IPG item which rated the patient's attention to personal belongings in his room was not used when subjects were interviewed in the administrator's office or in the dining room. The ABS and IPG totals correlated weakly; Kendall's tau was .26; Spearman's rho was .35; both were significant at the .001 level. Due to the missing data on the IPG as well as to the established validity of the ABS, the ABS score was used as the morale measure in the data analysis.

Awareness of Finitude. The item used to measure awareness of finitude asked subjects to estimate their time remaining before death. Scoring was zero for over 10 years, one point for 5 to 10 years, two points for less than five years and three points for "The end may be any time now." A higher score indicated a shorter time estimate and thus a higher awareness of finitude. This item was devised by Chellam (1964) and also used by Marshall (1973). Marshall had codeable responses on this item from 50 of his 79 subjects (63 percent); 16 respondnets said they did not know, and 13 gave some other response that was not codeable. In the current study 84 of the 120 subjects (70 percent) answered this item. Reasons for refusal included "I don't know," "I never think about it" and "I just take one day at a time." A higher response rate would have aided in the data analysis since on any comparison involving awareness of finitude 30 percent of the subjects were excluded. Those giving no answer in regard to finitude were not significantly more likely than those who answered to be above or below median in age, perceived health, ADL score, activity count or morale; neither did the sex distribution vary significantly between the respondents and nonrespondents. Marshall reported that as far as he could tell none of his items produced any anxiety in his subjects. Yet in the current study several residents at the retirement village complained to the activity director or to the office about having been asked this question. Both the low response rate and the complaints to the staff seem to indicate that it was threatening to a number of subjects to be asked to predict the time remaining in their future.

Sample Characteristics

Total Sample. The sample was predominantly female; 63 percent of the subjects were women compared to 37 percent men. This was not unusual for an elderly group residing in an institutional setting. Women predominate within the elderly population (National Center for Health Statistics, 1975). They are also proportionately more likely to reside in institutions (Riley and Foner, 1968). The present sample would have been more disproportionately female had it not been for an all male group of subjects in the Veterans Administration nursing care unit. The subjects ranged in age from 55 to 98. The mean age was 78.6; median was 79.7; mode was 84.0. The age distribution was unimodal. It was slightly skewed in a negative direction; skewness = -.38. Thus the distribution trailed off toward the lower values with the bulk of the cases at the higher end of the age range (see Figure 2). When the age distribution was divided into five year intervals, the largest group was 80 to 84 years of age.

Subjects were most likely to rate their health as good; 48 subjects gave this response. Responses of excellent and fair were given by nearly equal numbers (25 and 26 persons respectively). Only 19 described their health as poor. Two subjects gave no answer to this question. When perceived health was dichotomized, responses of excellent and good were grouped together as above median health; below median was composed of fair or poor self-ratings. In Activities of Daily Living (ADL), 42 of the subjects required no assistance in any of the six activities. Thus a score of zero was the mode; median was 2.1. The frequency distribution was multimodal with a large peak at zero and smaller peaks at scores of five and 10 (see Figure 3). Eating was the activity that re-

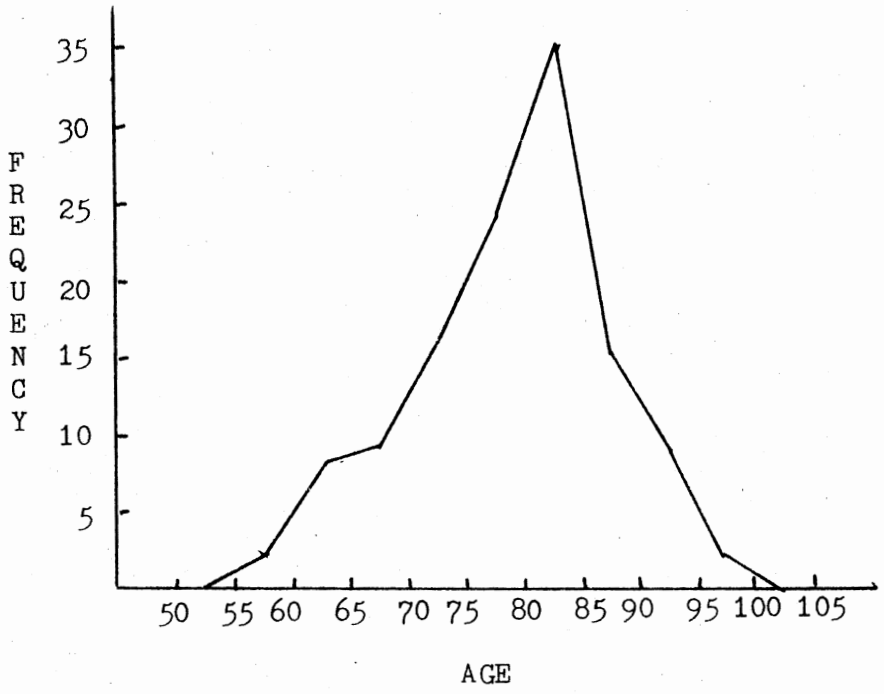

Figure 2. Age Frequency Polygon

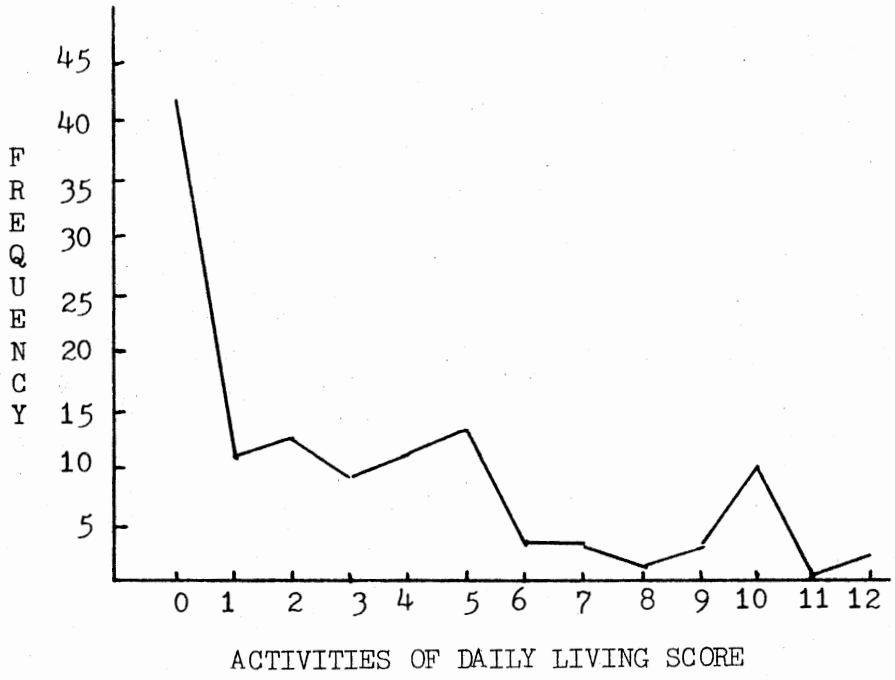

Figure 3. Activities of Daily Living Frequency Polygon

quired least assistance; 87.5 percent of the subjects needed no help with eating. Bathing was the activity which the smallest proportion were able to accomplish independently; only 35.8 percent required no help with this activity. The percentages requiring no help on other activities were 49.2 per cent on dressing, 59.2 percent on transfer, 61.7 percent on toileting and 77.5 percent on continence.

In regard to finitude subjects were most likely to give one of the extreme responses. Either they expected to live 10 years or more (29 subjects) or they believed the end might be any time (25 subjects). The response of five to 10 years was next most frequent (21 persons); only nine persons predicted they would live less than five years. Thirty-six subjects did not answer this question. When this variable was dichotomized responses of over 10 years and five to 10 years were considered to be below median in awareness of finitude; above median awareness of finitude was ascribed to those who believed the end would come in under five years or any time.

The activity count ranged from zero to 18; if one extreme value were eliminated the maximum number of activities reported would have been 13 (see Figure 4). The frequency polygon was unimodal. Mode was 6.0; median was 5.8. Most popular activity was watching television or listening to the radio with 78 percent of the sample reporting participation. Next most popular activities in order of frequency were: reading, 64 percent; religious services, 63 percent; visiting, 51 percent; and playing games, 44 percent.

The scores on the Affect Balance Scale (ABS) ranged from four to 20. The distribution was unimodal. Mode was 12; median was 13.0. When dichotomization was needed scores were divided with four to 12 as low

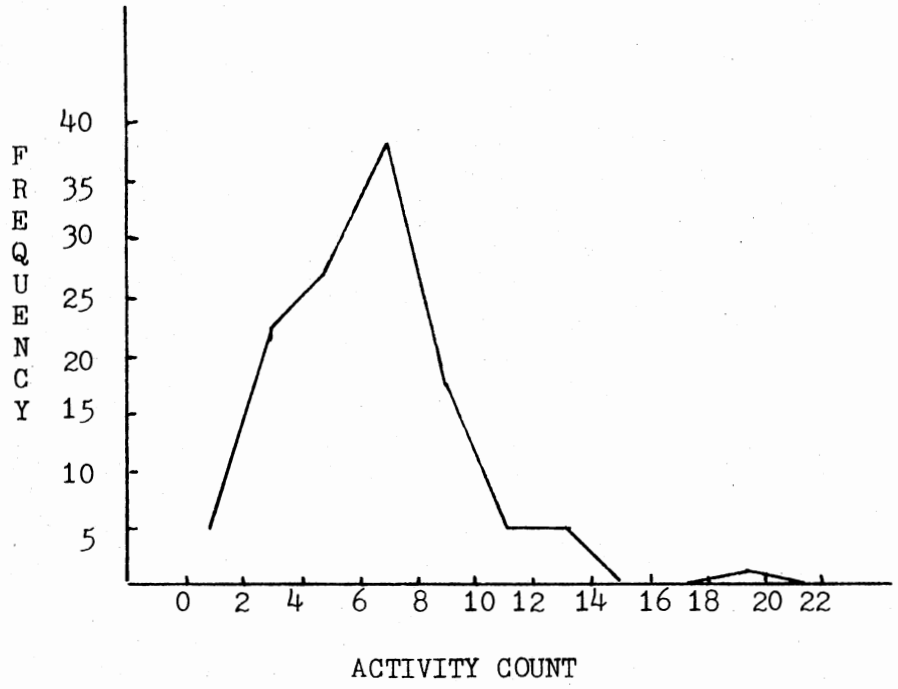

Figure 4. Activity Frequency Polygon

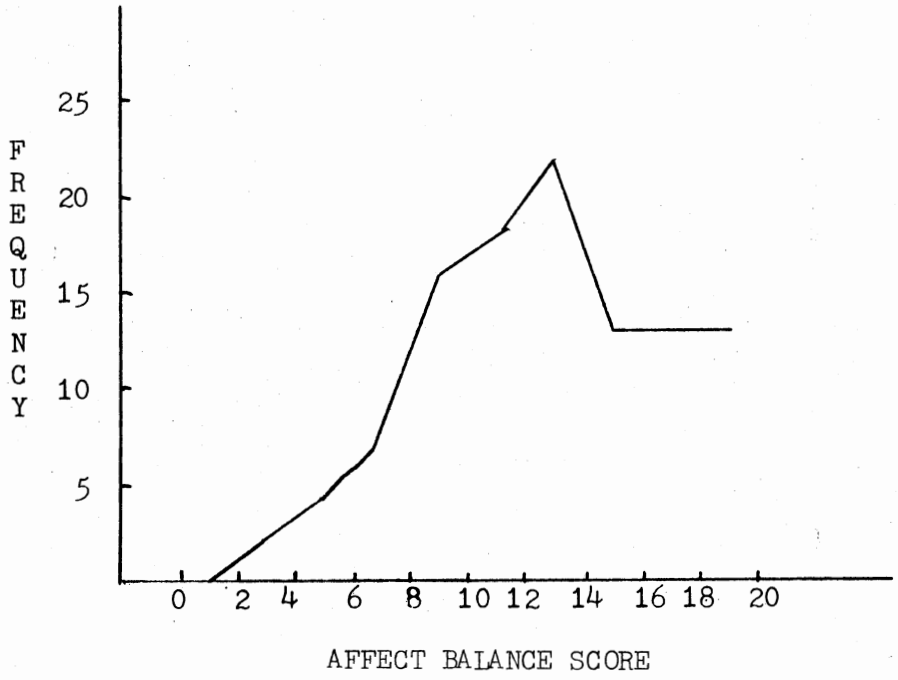

Figure 5. Affect Balance Scale Frequency Polygon

morale and 13 to 20 as high morale. If a person had given half positive and half negative responses he would have scored 10.0. A higher score indicates a predominance of positive over negative responses. Thus the overall responses tended to show more positive than negative affect. The frequency polygon showed a nonsymmetrical form to the distribution. Frequencies descended to zero toward the lower end of the range but remained on a plateau at the upper end of the scale (see Figure 5).

Differences Between Levels of Care. The sample was examined to see whether characteristics differed between levels of care. There was a slight but nonsignificant tendency on both mean and median for the portion of the sample from nursing care units to be oldest, that from the intermediate care units to be youngest with those in independent living units in the middle. Sex distributions differed significantly between levels of care. Men composed 37 percent of the sample in the nursing care units, 25 percent in the intermediate care units and 60 percent in the independent living units. Chi square for this distribution was 7.04; degrees of freedom = 2; probability was .05.

Health self-ratings were greatly different between levels of care. Of those in nursing units 54 percent reported their health to be either excellent or good; above median health was reported by 62 percent of those in intermediate care units and by 90 percent of those in independent living units. This difference produced a chi square of 8.22, significant at the .03 level with two degrees of freedom. The need for assistance with Activities of Daily Living differed more drastically between levels of care. In the nursing care units only 28 percent needed little or no ADL assistance (ADL score of zero to two). In contrast 72.5 percent of those in congregate facilities and 95 percent of

those in cottages needed below median ADL assistance. This difference between levels of care was significant at the .0001 level (see Table VIII).

TABLE VIII

PERCENTAGE DISTRIBUTION OF ACTIVITY OF DAILY LIVING SCORES, BY LEVEL OF CARE

	Nursing Units	Congregate Units	Cottages
Low ADL	28.3	72.5	95.0
High ADL	71.7	27.5	5.0
Total	100.0	100.0	100.0
Number of Cases	(60)	(40)	(20)

Chi square = 34.98; df = 2; p = .0001.

There was a difference between levels of care in awareness of finitude. Of those in nursing units two out of three expected death in less than five years and thus were high in awareness of finitude. On the other hand three of four in the congregate units and five of six of those in the cottages believed their death was over five years away and so were low in awareness of finitude (see Table IX). There was no significant difference between levels of care in the number giving no answer in regard to finitude; the range was from 32 percent in nursing units to 25 percent in cottages.

Activities differed substantially in both quantity and variety be-

TABLE IX

PERCENTAGE DISTRIBUTION OF AWARENESS OF FINITUDE, BY LEVEL OF CARE

	Nursing Units	Congregate Units	Cottages
Low Awareness of Finitude	37	75	87
High Awareness of Finitude	63	25	13
Total	100	100	100
Number of Cases	(41)	(28)	(15)

Chi square = 16.14; df = 2; p = .001.

TABLE X

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY LEVEL OF CARE

	Nursing Units	Congregate Units	Cottages
Low Activity	70	25	10
High Activity	30	75	90
Total	100	100	100
Number of Cases	(60)	(40)	(20)

Chi square = 32.42; df = 2; p = .0001.

tween levels of care. Of those sampled in nursing care units 70 percent were below median in activity count (zero to five activities) compared to 25 percent in congregate units and 10 percent in cottages (see Table X). In the nursing care units the activities reported were more likely to be restricted to the immediate environment and to demand less energy and less initiative on the part of the participant than many activities reported by those in congregate facilities or independent living units. Activities reported by a higher percentage of nursing care patients than of those in other units included therapy, movies, singing and crocheting. Nursing care patients but not those in other levels of care reported such activities as eating, crosswords, looking at pictures, receiving mail and telephoning. Residents in the congregate units reported more participation in group activities and in activities requiring some skill. They were most likely to report playing games, attending religious services or other programs within the building, participating in arts and crafts, walking, outings, sewing, playing the organ and painting. Activities reported by residents of congregate units not mentioned by those in other levels of care included going for rides, collecting things, drawing, attending senior citizens' center and playing in a rhythm band. Those in independent living units had highest rate of participation and greatest variety in the activities reported. They were most likely to serve in leadership capacities; they also were most likely to be involved in activities and organizations beyond the residential setting. While this group engaged in such sedentary activities as reading and letter writing more often than other groups, they also were most likely to report such active pursuits as attending ball games, gardening and taking trips. This group

frequently reported leadership roles such as teaching classes (in such areas as oil painting, French, Spanish, Lanbach literacy or the Bible) or volunteer work (at a hospital or jail, with mentally retarded, or with foreign students). Such varied interests were reported as inventing, feeding birds, woodworking, singing solos, photography, needlepoint, playing pool and attending continuing education classes.

Patients in nursing care units demonstrated the lowest morale. Two thirds registered below median (zero to 12) on the Affect Balance Scale compared to two fifths of those in congregate units and none of those in the cottages (see Table XI). Thus it may be seen that there was a consistent pattern in which nursing care units were distinguished from the other levels of care by having the poorest health, highest expectation of death, lowest activity count and poorest morale. This was in spite of the fact that the age of residents different little between levels of care.

TABLE XI

PERCENTAGE DISTRIBUTION OF AFFECT BALANCE SCALE SCORES, BY LEVEL OF CARE

	Nursing Units	Congregate Units	Cottages
Low ABS	67	40	0
High ABS	33	60	100
Total	100	100	100
Number of Cases	(60)	(40)	(20)

Chi square = 27.86; df = 2; p = .0001.

Comparison With Other Studies. Zimmer (1975) reported a study of the health status of 433 admissions to health related facilities (intermediate level care) and 738 admissions to skilled nursing facilities in the Rochester, New York, region. Zimmer found no residents in health related facilities requiring complete assistance in any activity of daily living, while 50 percent of the patients in skilled nursing facilities required complete care in at least one activity. Zimmer reported on four activities: bathing, dressing, toileting and eating. Zimmer's ADL response categories were not identical to those in the current study; he used a four point scale (no help, minimal, moderate or complete help) rather than the three point scale used in this study (no help, much help). Thus his findings are not exactly comparable. But it would seem legitimate to compare the proportions needing no help in both studies. When the findings were compared it was noted that the differences between the intermediate and skilled nursing levels of care were more pronounced in the Rochester study than in the current sample (see Table XII). In each of the four categories his intermediate level patients were less likely to need assistance than those in the present study; on the other hand, his nursing care patients were more likely to require assistance. Thus although in both studies those in the intermediate level of care were less likely to need ADL assistance than those in the nursing units, the difference between levels was greater in the Rochester study.

Gottesman and Bourestom (1974) reported a study of 1144 nursing home residents in Detroit. They used the Katz ADL Scale with the same six activities and three response categories as in the present study. In comparing the Detroit sample with the nursing care patients in the

current sample it was noted that more patients in the current study required assistance in the first four activities with those in the Detroit study more likely to need assistance only in continence and eating (see Table XIII). There was also a difference in the amount of assistance needed. In the current study more patients needed a moderate amount of help rather than much help in every activity. However, in the Detroit study much help was needed more often than some help in half of the activities. Gottesman and Bourestom reported that the patients most disabled physically were least active ($r = .37$); this correlation was also found in the current study.

TABLE XII

PERCENT REQUIRING NO ASSISTANCE WITH ACTIVITIES OF DAILY LIVING: COMPARISON WITH ROCHESTER STUDY

	Bathing	Dressing	Toileting	Eating
Rochester Study				
Intermediate Care	59.2	87.7	96.9	97.2
Nursing Care	4.6	12.0	23.6	36.2
Current Study				
Intermediate Care	45.0	62.5	80.0	92.5
Nursing Care	10.0	25.0	38.0	80.0

TABLE XIII

PERCENT REQUIRING ASSISTANCE WITH ACTIVITIES OF DAILY LIVING: COMPARISON WITH DETROIT STUDY

	Bathing	Dressing	Toileting	Transfer	Continence	Eating
Detroit Study						
Some Help	26	9	30	39	19	22
Much Help	60	56	16	2	25	14
Current Study						
Some Help	60	60	43	50	28	18
Much Help	30	15	18	13	5	2

Analysis of Relationships

Zero Order Correlations

Correlates of Age. Perhaps one of the most important findings of the study in regard to the disengagement theory was that age was not significantly correlated with activity count. There was a negligible and nonsignificant tendency for older persons to be less active. Age was not significantly related to perceived health or to morale. It was weakly correlated with ADL score; Kendall's tau was .21; Spearman's rho was .27; both were significant at the .02 level. There was a weak to moderate correlation between age and awareness of finitude; Kendall's tau was .33 and Spearman's rho was .41; both coefficients had a probability of .001.

Correlates of Health. As might be expected, greater physical incapacity (higher ADL Score) resulted in lower activity count; Kendall's tau = -.49; Spearman's rho = -.64; probability = .001. The correlation between ADL score and perceived health was weak; Kendall's tau = .22; Spearman's rho = -.26; both were significant at the .03 level. ADL score had a moderate impact on both awareness of finitude and morale. The correlation coefficients for the relationship between ADL Score and awareness of finitude were .35 (Kendall's tau) and .43 (Spearman's rho); both were significant at the .001 level. Thus the more physical incapacity, the greater the likelihood that the subject believed his death was not too distant. ADL score was negatively associated with morale; Kendall's tau = -.41; Spearman's rho = -.53; probability = .001. The health self-rating did not have as great impact as did physical incapacity on activity count, awareness of finitude or morale. The relation-

ship between perceived health and each of these variables was weak. In the relationship between perceived health and activity count, Kendall's tau was .24 with a probability of .009; Spearman's rho was .30 with a probability of .008. The relationship between self-rated health and the Affect Balance Scale produced a Kendall coefficient of .30 and a Spearman coefficient of .38, both significant at the .001 level. Correlating health and awareness of finitude, Kendall's tau was -.27 with a probability of .007; Spearman's rho was -.32 with a probability of .005.

Correlates of Activity Count. It has already been noted that activity count was influenced moderately by ADL score and weakly by perceived health. There was a moderate negative correlation between awareness of finitude and activity count; this relationship will be discussed in the section on tests of hypotheses. Activity count was positively correlated with the Affect Balance Scale score. Kendall's tau was .40; Spearman's rho was .54; both were significant at the .001 level. A positive association between activity and morale would be predicted by the activity theory.

Elaboration Analysis

Sex as a Control Variable. Elaboration involves examining a zero order relationship within each category of the control variable. When the correlations among the other variables were run separately for men and women, most relationships were unaffected. However, there were several relationships that were stronger among the women than among the men. Age was weakly associated with ADL total among the women but not associated at all among the men. Two associations were moderate for the

women but negligible for the men: those between age and finitude and between ADL score and finitude. The relationship between awareness of finitude and activity count was moderate for the women and weak for the men. The only relationships that were stronger for the men than for the women were those between ADL score and morale and between perceived health and morale; both of these relationships were moderate for the men and weak for the women.

Age as a Control Variable. An unexpected finding was that most relationships were stronger among the younger respondents than among the older group. Those below median age (ages 55 to 79) had a moderate association while those above median age (ages 80-98) had a weak association between the following pairs of variables: ADL score and activity count; ADL score and morale; activity count and morale; and perceived health and awareness of finitude. Those below median age had weak associations while those above median age had negligible associations between the following pairs of variables: ADL score and perceived health; awareness of finitude and morale. The largest difference in level of association between low and high age groups was for the relationship between ADL score and awareness of finitude. This relationship was moderate for the low age group; Kendall's tau = .47; Spearman's rho = .54; probability = .002 and .001 respectively. However, among the older group this relationship dropped to negligible; Kendall's tau = .17; Spearman's rho = .20; probabilities were .19 and .20 respectively.

ADL Score as a Control Variable. Most relationships remained unaffected when ADL score was introduced as a control variable. However, four relationships were substantially affected. Three associations were

stronger among those subjects above median in ADL score. The relationship between awareness of finitude and activity count was moderate for those with high ADL scores but weak among those with low ADL scores. The relationships between perceived health and activity count and between perceived health and awareness of finitude were moderate among those high in ADL needs but negligible among those needing little or no ADL assistance. One relationship was moderate among those with below median ADL scores and dropped to zero among those with high ADL scores. This was the relationship between age and awareness of finitude. The correlation coefficients among those with little physical incapacity were .47 (Kendall's tau) and .59 (Spearman's rho); both were significant at the .001 level. On the other hand, among those with above median physical incapacity Kendall's tau was 0.0 and Spearman's rho was -.01.

Perceived Health as a Control Variable. Among those with low perceived health (fair or poor self-ratings) several relationships were stronger than among those with high perceived health (good or excellent self-ratings). The following relationships were moderate among those with low perceived health but weak among those with high perceived health; between ADL score and awareness of finitude; between awareness of finitude and activity count; and between activity count and morale. The most substantial difference was in the relationship between ADL score and activity count. This relationship was strong among persons with low perceived health; Kendall's tau = -.77; Spearman's rho = -.88; both were significant at the .001 level. Among those with high perceived health the correlation coefficients were greatly reduced; Kendall's tau = -.36; Spearman's rho = -.49; both were significant at the .001 level. Two relationships were stronger among those with high

perceived health. The relationship between age and ADL score was weak among the high health group but negligible among the group with low health. The relationship between age and awareness of finitude was moderate among those with high health self-ratings but weak among those with low health self-ratings.

Self-Reported Disability as a Control Variable. Self-reported disability was the variable that recorded whether or not the subject mentioned a physical restriction that kept him from participating in specified activities. For example, the patient might mention that he loved to read but was unable to do so because of poor eyesight. There was little difference between those who reported such disability and those who did not in regard to most relationships among variables. However, there were four relationships affected by controlling for self-reported disability. Those who did not mention any physical restrictions on activity had a moderate relationship between age and awareness of finitude, while this relationship was weak among those with self-reported disability. Similarly the group reporting no disability had a weak relationship between age and ADL score while the group reporting disability had a negligible relationship. Two relationships were moderate among those with self-reported disability but weak among those with no reported disability: the relationship between awareness of finitude and activity count and that between activity count and morale. Thus activity level had a greater impact on morale when there were activities in which the subject would like to participate but in which he was unable to participate due to a physical disability.

Awareness of Finitude as a Control Variable. Between groups high

and low in awareness of finitude there were few differences in relationships among other variables. Perceived health was weakly associated with morale among those high in awareness of finitude but negligibly related among those low in awareness of finitude. On the other hand perceived health had a weak negative relationship with self-reported disability among those low in awareness of finitude but a negligible association among the high awareness group. Another use of awareness of finitude as a control variable was the comparison of persons who gave no answer on this question with the rest of the sample. With 30 percent of the sample failing to answer this question it was important to see if these persons differed in ways relevant to the study from those who gave an answer. When the relationships among other variables were compared between the respondents and the nonrespondents, most relationships were unaffected. However, four relationships showed stronger association among the rest of the sample than among those who gave no answer in regard to finitude. The relationships between age and ADL score and between ADL score and perceived health were weak among the majority of the subjects but negligible among those who did not respond to the finitude item. The relationships between ADL total and activity count and between ADL total and morale were moderate among the respondents but weak among the nonrespondents.

Dichotomous Multivariate Analysis

Dichotomous multivariate analysis is a technique for sorting out the relative impact of each of three independent variables on one dependent variable. The procedure is begun by determining the proportion with a given value of the dependent variable within each cell of an eight-

fold table comprising dichotomized categories of the three independent variables. The equation for each effect parameter (a_1, a_2 and a_3) is the average of the differences between pairs of proportion which reflect opposite categories of the given variable but the same categories of the other two independent variables. For a test of significance z scores are computed for each parameter (z_1, z_2 and z_3). These are then compared to a table of z values to determine the probability of such a z score. Random shocks toward (r) and away from (s) the given state of the dependent variable are also computed. The three effect parameters plus r and s total one. The larger the given parameter, the larger the proportion of the total variation of the dependent variable that is explained by that factor.

Awareness of Finitude as a Dependent Variable. Dichotomous multivariate analysis was used to determine the relative influence of age, perceived health and level of care on awareness of finitude. Each of the three had a significant zero order correlation with awareness of finitude. There is theoretical justification for regarding each as an independent variable influencing one's estimate of longevity. The older a person is, the more bereavements he is likely to have experienced, the closer he is to the age at which his parents died and so forth. The poorer he believes his health to be, the more likely he is to be thinking about the approaching end. People often enter a nursing home believing it to be "the end of the road," the last residence before death; death awareness would likely be higher in nursing care units than in other levels of care. All three effect parameters were significant (see Table XIV). The largest amount of the variation in awareness of

TABLE XIV

MEASURED EFFECTS OF AGE, HEALTH AND LEVEL OF CARE ON AWARENESS OF FINITUDE

	Effect Parameters	Z Scores	Probability
Independent Variables			
Effect of Age	$a_1 = .248$	$z_1 = 2.16$	$p = .02$
Effect of Perceived Health	$a_2 = .177$	$z_2 = 1.54$	$p = .07$
Effect of Level of Care	$a_3 = .337$	$z_3 = 2.93$	$p = .002$
Random Shocks			
Toward High Awareness of Finitude	$r = .020$		
Aware from High Awareness of Finitude	$s = .218$		
Total	1.000		
Number of Cases	(83)		

finitude was explained by level of care (a_3 = .337; p = .002). A substantial amount of variation was also explained by age (a_1 = .248; p = .02). The effect of perceived health just failed to reach significance (a_2 = .177; p = .07). Since most of the variation in awareness of finitude was explained by the three independent variables in the equation, the random shocks toward high awareness of finitude were near zero (r = .020). The random shocks away from high awareness of finitude accounted for about one fifth of the variation in finitude scores (s = .218).

Activity Count as a Dependent Variable. The impact of awareness of finitude, physical incapacity and age on activity count was examined next. Both awareness of finitude and physical incapacity (ADL score) had significant zero order correlations with activity count. Age did not correlate significantly with activity count, but was included in the analysis because of the number of studies which have focused on whether or not age affects activity level. All three variables may be theoretically linked to activity level. The relationship between awareness of finitude and activity count is a central hypothesis of this study. Physical incapacity would tend to limit activity. A supposed relationship between age and activity has been the focal point of many studies based on both activity and disengagement theory. Disengagement theory predicts lowered activity with advanced age, while activity theory suggests this does not occur unless forced by physical incapacity. It was discovered that awareness of finitude did account for the largest proportion of the variation in activity count among the three variables in the equation (see Table XV). The effect of awareness of finitude was .552 (p = .0001) compared to .235 for ADL score (p = .003) and .153 for

TABLE XV

MEASURED EFFECTS OF AWARENESS OF FINITUDE, PHYSICAL INCAPACITY AND AGE ON ACTIVITY COUNT

	Effect Parameters	Z Scores	Probability
Independent Variables			
Effect of Awareness of Finitude	$a_1 = .552$	$z_1 = 6.68$	$p = .0001$
Effect of Physical Incapacity	$a_2 = .235$	$z_2 = 2.84$	$p = .003$
Effect of Age	$a_3 = .153$	$z_3 = 1.85$	$p = .04$
Random Shocks			
Toward Low Activity	$r = .044$		
Away from Low Activity	$s = .016$		
Total	1.000		
Number of Cases	(84)		

age ($p = .04$). Surprisingly there was a tendency for younger age to be associated with less activity rather than more activity. Thus when the effects of awareness of finitude and physical incapacity are subtracted out, the older persons in this sample were actually more active than the younger ones. Thus awareness of finitude was more important than age in predicting level of activity. Also awareness of finitude explained more of the variation in activity than did physical incapacity. This would suggest that disengagement is more a social than a biological process. It might be noted that the three variables in the analysis together accounted for most of the variation in activity count; thus the random shocks in both directions were near zero ($r = .044$; $s = .016$).

Morale as a Dependent Variable. When morale was examined as a dependent variable, the first set of independent variables considered was awareness of finitude, activity count and self-reported disability. It was theorized that perceiving one's death to be drawing closer might be depressing. Activity level has been found to be positively associated with morale in many studies. It was theorized that those subjects who reported some physical disability that disqualified them from activities might have lower morale than those who did not report such disabilities. All three of these variables did have significant zero order correlations with morale. Yet when their effects were examined by dichotomous multivariate analysis, the effects of awareness of finitude and of self-reported disability became insignificant (see Table XVI). The effect of awareness of finitude was .071; $p = .30$; the effect of self-reported disability was .021; $p = .44$. Only the activity count demonstrated a significant influence on morale; $a_2 = .280$; $p = .02$. Apparently the zero order relationships with awareness of finitude and self-reported

TABLE XVI

MEASURED EFFECTS OF AWARENESS OF FINITUDE, ACTIVITY COUNT AND SELF-REPORTED DISABILITY ON MORALE

	Effect Parameters	Z Scores	Probability
Independent Variables			
Effect of Awareness of Finitude	$a_1 = .071$	$z_1 = .52$	$p = .30$
Effect of Activity	$a_2 = .280$	$z_2 = 2.07$	$p = .02$
Effect of Self-Reported Disability	$a_3 = .021$	$z_3 = .16$	$p = .44$
Random Shocks			
Toward High Morale	$r = .325$		
Away from High Morale	$s = .303$		
Total	1.000		
Number of Cases	(84)		

disability were artifacts of their interaction with activity count. Most of the variation in morale remained unexplained with these three variables in the analysis ($r = .325$; $s = .303$).

In order to explain more of the variation in morale, another set of independent factors was utilized. The three variables with the strongest zero order correlation with morale were used; these were physical incapacity, activity count and level of care. Physical incapacity was an objective rating of needs for assistance in Activities of Daily Living; it might be expected that physical incapacity would negatively influence morale. Activity count was the only significant factor in the preceding analysis. Level of care was the strongest correlate of morale in the zero order relationships. Level of care summarized a lot of factors including more depressing surroundings, less availabiltiy of resources, poorer perceived health and so forth; it might be expected that those in nursing care units would feel worse about themselves and their life situation than those in independent living units or in congregate units. The results of the analysis were that level of care had the strongest impact on morale of this set of independent variables; $a_3 = .389$; $p = .0001$ (see Table XVII). Activity count, which had the second strongest zero order association with morale, dropped to third in this analysis. Apparently it was more important to morale whether or not low activity was due to physical incapacity.

Tests of Hypotheses

Finitude and Activity

In line with the disengagement theory, it was predicted that a heightened perception of the nearness of death would lead to reduced

TABLE XVII

MEASURED EFFECTS OF PHYSICAL INCAPACITY, ACTIVITY COUNT AND LEVEL OF CARE ON MORALE

	Effect Parameters	Z Scores	Probability
Independent Variables			
Effect of Physical Incapacity	$a_1 = .257$	$z_1 = 2.75$	$p = .003$
Effect of Activity	$a_2 = .177$	$z_2 = 1.90$	$p = .03$
Effect of Level of Care	$a_3 = .389$	$z_3 = 4.18$	$p = .0001$
Random Shocks			
Toward High Morale	$r = .119$		
Away from High Morale	$s = .059$		
Total	1.000		
Number of Cases	(120)		

activity. Thus it was hypothesized that those subjects high in awareness of finitude would be below median in activity.

> Hypothesis 1. Among non-senile residents of selected old age living environments, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

This hypothesis was strongly confirmed. Those high in awareness of finitude were three times as likely to be below median in activity count than those low in awareness of finitude (see Table XVIII). The corrected chi square of 19.89 was significant at the .0001 level with one degree of freedom. Both correlation coefficients indicated a moderate negative correlation between awareness of finitude and activity count. Kendall's tau was -.43; Spearman's rho was -.53; both were significant at the .001 level.

Control Variables

Age. The first variable considered as a control variable was age. The hypothesis proposed that the zero order relationship between awareness of finitude and activity would be maintained within groups dichotomized by age.

> Hypothesis 2. Within groups dichotomized by age, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

The study did confirm that a significant relationship between awareness of finitude and activity count is found in both high and low age groups. However, the relationship between finitude and activity was more pronounced within the younger age group than among the older group. Among subjects below median age, 100 percent of those high in awareness of

TABLE XVIII

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	22	74
High Activity	78	26
Total	100	100
Number of Cases	(50)	(34)

Corrected chi square = 19.89; df = 1; p = .0001.

finitude were low in activity count; on the other hand, only one sixth of those low in awareness of finitude were below median in activity (see Table XIX). The corrected chi square of 17.43 was significant at the .0001 level. In the younger age group the correlation between awareness of finitude and activity was moderate. Kendall's tau was -.44; Spearman's rho was -.55; both were significant at the .001 level. In contrast among the older subjects the relationship between awareness of finitude and activity just reached significance as gauged by chi square. The corrected chi square of 3.87 was significant at the .05 level with one degree of freedom (see Table XX). The older group had a lower level of association between awareness of finitude and activity. Kendall's tau was -.35; Spearman's rho was -.44; significance levels were .005 and .004 respectively.

Health. It was hypothesized that the relationship between awareness of finitude and activity count would be maintained within groups dichotomized by either subjective or objective measures of health. The subjective measure was the self-rating of health.

> Hypothesis 3. Within groups dichotomized by perceived health, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

This hypothesis was confirmed. The relationship between awareness of finitude and activity was stronger among those in poorer health than among those in better health. Among those reporting fair or poor health the correlation between awareness of finitude and activity was moderate. Kendall's tau was -.49 while Spearman's rho was -.62; both were significant at the .001 level. Similarly the corrected chi square of 11.15 was

TABLE XIX

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: LOW AGE

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	17	100
High Activity	83	0
Total	100	100
Number of Cases	(30)	(9)

Corrected chi square = 17.43; df = 1; p = .0001.

TABLE XX

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: HIGH AGE

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	30	63
High Activity	70	36
Total	100	100
Number of Cases	(20)	(25)

Corrected chi square = 3.87; df = 1; p = .05.

significant at the .001 level (see Table XXI). Among subjects reporting good or excellent health the correlation between awareness of finitude and activity was weak. Kendall's tau was -.28; Spearman's rho was -.34; both were significant at the .02 level. The corrected chi square of 5.51 was also significant at the .02 level (see Table XXII).

The objective measure of health was a rating by the head nurse of the subject's need for assistance in Activities of Daily Living (ADL).

> Hypothesis 4. Within groups dichotomized by physical incapacity, residents high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

This hypothesis was not confirmed. Among those with little or no physical incapacity (low ADL) the correlation between awareness of finitude became weak and nonsignificant. Kendall's tau was -.21 and Spearman's rho was -.25; both had a probability of .10. Corrected chi square was 4.76 for this relationship; this was significant at the .03 level (see Table XXIII). Those with a higher degree of physical incapacity (high ADL) had a stronger relationship between awareness of finitude and activity. For this group Kendall's tau was -.47 and Spearman's rho -.57; both were significant at the .001 level. Corrected chi square was 5.71, which was significant at the .02 level (see Table XXIV). Thus it was concluded that when physical incapacity was introduced as a test variable, the association between awareness of finitude and activity was maintained in only one of the partial relationships. The association was observed among those with greater physical incapacity but not among those with less physical incapacity.

Sex. It was hypothesized that the relationship between awareness of finitude and activity would be observed for both men and women.

TABLE XXI

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: LOW HEALTH

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	23	89
High Activity	77	11
Total	100	100
Number of Cases	(13)	(18)

Corrected chi square = 11.15; df = 1; p = .001.

TABLE XXII

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: HIGH HEALTH

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	22	60
High Activity	78	40
Total	100	100
Number of Cases	(37)	(15)

Corrected chi square = 5.51; df = 1; p = .02.

TABLE XXIII

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: LOW PHYSICAL INCAPACITY

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	14	50
High Activity	86	50
Total	100	100
Number of Cases	(36)	(12)

Corrected chi square = 4.76; df = 1; p = .03.

TABLE XXIV

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: HIGH PHYSICAL INCAPACITY

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	43	86
High Activity	57	14
Total	100	100
Number of Cases	(14)	(22)

Corrected chi square = 5.72; df = 1; p = .02.

Hypothesis 5. Among male residents, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Hypothesis 6. Among female residents, those high in awareness of finitude will be significantly more likely to be below median in activity count than those low in awareness of finitude.

Hypothesis 5 was not confirmed. Among the men in the sample the correlation between awareness of finitude and activity was weak and nonsignificant. Kendall's tau was -.30 with a probability of .06; Spearman's rho was -.36 with a probability of .07. Corrected chi square was 1.88 with a probability of .17 (see Table XXV). Hypothesis 6 was confirmed. Among the women the relationship between awareness of finitude and activity was moderate and significant. Kendall's tau was -.50; Spearman's rho was -.62; both were significant at the .001 level. Corrected chi square was 18.98, significant at the .001 level (see Table XXVI). Thus the zero order relationship between awareness of finitude and activity was not maintained when sex was introduced as a test variable. The relationship remained significant for the women but not for the men.

Activity and Morale

It was predicted that the relationship between activity and morale would be different for groups high or low in finitude. It was hypothesized that among those low in awareness of finitude, morale would be positively associated with activity. On the other hand, it was predicted that those high in awareness of finitude would have no significant relationship between morale and activity.

Hypothesis 7. Among residents low in awareness of finitude, those with above median activity count will be significantly more likely to be above median

TABLE XXV

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: MEN

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	35	67
High Activity	65	33
Total	100	100
Number of Cases	(20)	(12)

Corrected chi square = 1.88; df = 1; p = .17.

TABLE XXVI

PERCENTAGE DISTRIBUTION OF ACTIVITY COUNT, BY AWARENESS OF FINITUDE: WOMEN

	Low Awareness of Finitude	High Awareness of Finitude
Low Activity	13	77
High Activity	87	23
Total	100	100
Number of Cases	(30)	(22)

Corrected chi square = 18.98; df = 1; p = .0001.

in morale score than those with below median activity count.

Hypothesis 8. Among residents high in awareness of finitude, those with above median activity count are not significantly more likely to be above median in morale score than those with below median activity count.

The findings on both of these hypotheses were ambiguous. Within both levels of awareness of finitude the association between activity and morale had weak though significant correlation coefficients but non-significant chi squares. Among subjects low in awareness of finitude Kendall's tau was .32, significant at the .005 level; Spearman's rho was .43, significant at the .004 level. Corrected chi square was .47; the probability was .49. Among those high in awareness of finitude Kendall's tau was .30; Spearman's rho was .39; both were significant at the .03 level. Corrected chi square was .43; the probability was .51. Thus neither hypothesis 7 nor hypothesis 8 was unambiguously confirmed. The conclusion drawn was that there was no difference in the relationship between activity and morale for different levels of finitude. The prediction that awareness of finitude might be an intervening variable specifying whether or not activity level influenced morale was not confirmed.

Summary

The tests of hypotheses may be summarized as follows:

Hypothesis 1 -- Confirmed
Hypothesis 2 -- Confirmed
Hypothesis 3 -- Confirmed
Hypothesis 4 -- Not Confirmed
Hypothesis 5 -- Not Confirmed
Hypothesis 6 -- Confirmed
Hypothesis 7 -- Not Confirmed
Hypothesis 8 -- Not Confirmed

There is a zero order correlation between awareness of finitude and activity count. This relationship is maintained when age and perceived health are controlled. It is not maintained when physical disability (ADL score) is controlled. The relationship between awareness of finitude and activity held true for the women sampled but not for the men. Finally, it was observed that the relationship between activity count and morale was no different for subjects high or low in awareness of finitude.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

Theories of Aging

The proportion of elderly persons within the United States population has more than doubled since 1900. This has led to a great deal of public attention and research focused on how best to meet the needs of elderly persons. Several theories have been advanced in the area of aging. Role theory, the earliest theory used in the young field of social gerontology, suggested that the role loss accompanying aging brings lowered morale. Subculture theory suggested that the elderly are developing their own subculture due to increased interaction and perception of common needs; such a subculture has been noted among residents of age-concentrated living environments. Age stratification theory noted the differential status of different age groups. The gerontological theory most often used as a guide to policy and action is the activity theory. This theory is based on the assumption that the elderly have the same needs for activity and engagement as the middle-aged; it maintains that decreased interaction results in lowered morale.

Contrasted to the activity theory is the disengagement theory. This theory has provided the conceptual framework for numerous studies on aging. Its basic proposition was that with aging comes an inevitable

and universal withdrawal from activity and lessening of interest in external events. Such withdrawal was suggested to be caused by one or more of the following factors: declining energy, increased perception of the nearness of death, social change and role loss. The theory suggested that such withdrawal from activity did not necessarily result in loss of morale, although it was suggested that morale might decline if disengagement were forced on the aging person before he was ready to disengage. The extensive literature generated by the disengagement theory has demonstrated that disengagement is not an inevitable biological process but a variable process affected by such factors as personal characteristics, environment and circumstances of disengagement. A majority of studies have found a decline in activity to be associated with lowered morale.

Aging and Dying

Although in primitive societies death may strike all age groups, in industrialized societies the conquest of many acute infectious diseases has made death rare in children and young adults; thus death has become primarily a phenomenon of the elderly. The attitude of our society toward the death of an aging person seems to be that such a death is proper and timely; however, this attitude may not be shared by the elderly themselves. Studies have examined fear of death among the elderly with inconclusive results. A more recent concept in studies of death attitudes among the elderly is awareness of finitude, operationally defined as the subject's prediction of his time remaining before death.

Living Environments of the Aging

The environment, both social and physical, has a decisive impact on life adjustment. The influence of the immediate environment is greatest on those with limited physical and financial resources; thus it is more important to many elderly persons than to the general population. Physical environment includes such factors as its resource richness, possibility for privacy and isolation or integration within the broader community. Social environment focuses on the segregate dimension (whether all age groups or only the elderly are accommodated), the congregate dimension (the proximity of living quarters) and the institutional dimension (control versus freedom of choice). Age-concentrated environments are those which are both age-segregated and congregate. Age-concentrated facilities that allow freedom are retirement communities. Facilities in which residents give up more autonomy in exchange for more institutional care are old age institutions (nursing homes, rest homes, and homes for the aged). Recent retirees are more likely to be found in retirement communities, while the "older" elderly are more likely to be found in old age institutions. The same factors that cause disengagement may lead to institutionalization; hence, disengagement may be expected to be frequent among the institutionalized. Institutional neurosis may be seen as an extreme form of disengagement. Improvements in institutional care may be made through development of staff or program.

Research Design

Theoretical Formulation

Elderly persons residing in age-concentrated environments are more frequently confronted with death and dying than are persons in other age groups or in other types of residences. This study theorized that among this group awareness of finitude would be a significant intervening variable between age and activity level. It hypothesized that among residents of selected old age residential settings those who believe they have less time remaining in their future are more likely to disengage from activity than those who do not believe their end is imminent. A number of control variables were analyzed, including age, sex, perceived health and physical incapacity; the study hypothesized that the relationship between awareness of finitude and activity count would be maintained when these variables were controlled. It also hypothesized that lowered activity would be less likely to result in lowered morale among those high in awareness of finitude than among those less aware of finitude.

Methodology

Subjects were interviewed using a structured interview schedule. Awareness of finitude asked the subject's estimate of the time left in his future; choices were over 10 years, between 5 and 10 years, less than five years or any time now. Perceived health was a self-rating of health as excellent, good, fair or poor. Activity count was numerical score of one point for each activity in which the subject reported participation. Morale was measured by the 10 item Affect Balance Scale.

In addition the subjects were rated on assistance needed in six Activities of Daily Living using the Katz ADL Scale. One hundred twenty subjects were interviewed from old age residential settings representing a variety of levels of care (retirement cottages, congregate units and nursing care units) as well as types of sponsorship (non-profit, proprietary and public). The sample consisted of 10 residents from each level of care from each facility studied. Data was processed on a 370 IBM Computer using SPSS Programs. Statistics used included nonparametric correlation (Kendall's tau and Spearman's rho), dichotomous multivariate analysis and chi square.

Summary and Findings

Characteristics of Sample

Subjects ranged in age from 55 to 98. Nearly two thirds were female. Nearly two thirds required some assistance in Activities of Daily Living. Number of reported activities ranged from 0 to 18. Great differences in sample characteristics between levels of care were observed. Those in retirement cottages were most likely to be male, low in need for ADL assistance and awareness of finitude and high in perceived health, activity level and morale. Subjects in nursing homes were most likely to be female, high in physical incapacity and awareness of finitude and low in perceived health, activity level and morale. Those in the congregate or intermediate care units were most likely to be female; they ranked in between the other levels of care on the other variables mentioned above. There was practically no age difference between levels of care.

Age

It was found that age had little effect on activity. Looking at these two variables alone there was a slight but nonsignificant tendency for older age to be associated with lower activity. However, when the effects of physical incapacity and of awareness of finitude were subtracted, there was an actual tendency for older persons to be more active. This was one of the more surprising findings of the study. It shows that any disengagement that occurs depends less on chronological age than on physical and social factors. One example, although unusual, makes this point clearly. Mr. A, a 91 year old resident of one of the retirement apartments at the retirement village, was confined to a wheel chair; he was above median in physical incapacity as gauged by the ADL score. Yet he was one of the most active persons interviewed, with an activity count in the upper 10 percent of the sample. His activities included jail ministry, teaching a Bible class, writing letters to public officials about controversial issues, gardening, woodworking, inventing (with patents pending), feeding birds and writing poetry. Obviously a simple one to one relationship positing declining activity with increasing age is unfounded.

Awareness of Finitude

Although age was not a significant predictor of activity level, awareness of finitude was. Those who believed their end would be within five years were significantly less active than those who believed they had over five years remaining. This relationship was maintained when age and perceived health were used as control variables. However, when

ADL score and sex were introduced as control variables, one of the partial relationships became nonsignificant.

Morale

Activity count was a significant predictor of morale; but when the relative influences of three independent variables were studied, activity had less impact on morale than did ADL score. It would seem that not only level of activity but also whether it was forced due to physical incapacity are important in predicting morale. The relationship between morale and activity was not different between groups high and low in awareness of finitude.

Level of Care

An unexpected finding was that level of care was the most dependable predictor of score on several variables. It had more impact than age or perceived health on awareness of finitude as measured by both zero order correlation and dichotomous multivariate analysis. It had the strongest zero order correlation with activity. It had the strongest impact on morale gauged by both zero order correlation and dichotomous multivariate analysis. This might be explained through two factors. First the population of nursing homes is highly self-selected, being comprised of the very old, the sick and the widowed; in comparison the population of persons in retirement cottages is more likely to be married, younger and in better health. Yet this is only part of the explanation. The resource richness of the environment, privacy, independence and so forth differ greatly between levels of care. It could be that both population characteristics and environmental influences

enter in to create the differences in awareness of finitude, activity level and morale between levels of care.

Implications

Theoretical

Thomas Kuhn (1962) suggested that a theoretical model or paradigm as a guide for research is essential if a field is to become a science. "By focusing attention upon a small range of relatively esoteric problems," he argued, "the paradigm forces scientists to investigate some part of reality in a detail and depth that would otherwise be unimaginable" (p. 24). This is not to say that the paradigm ever completely depicts reality. Kuhn continued, "More than one theoretical construction can always be placed upon a given set of data" (p. 76). Although the paradigm mirrors reality "only more or less," it still provides an essential focus for research (p. 146). In the words of Bacon, "Truth emerges more readily from error than from confusion" (Kuhn, 1962).

The dominant paradigm in social gerontology in terms of research generated has been the disengagement theory. It has been the theory which has defined research areas and suggested research hypotheses (Streib and Schneider, 1971). Yet the disengagement theory may be seen as a theory in crisis. Its basic assumptions are being challenged from many directions. Rose (1964) noted that much of the observed disengagement is a function of the mandatory retirement which is found in the United States at present but which is not universal in all times and places. Shanas et al. (1968) attacked the suggestion that disengagement is a universal pattern; this study found only two persons in five were disengaged by their eighties. Havighurst and Neugarten (1969) found

disengagement patterns to vary by occupational group and by nationality; they reported that disengagement was not associated with high life satisfaction. Blau (1973) attacked the view that disengagement could be considered normal, whether in terms of being typical or desirable. She concluded, "The disengagement theory, as originally formulated by Cumming and Henry, has little, if any, scientific value" (p. 152). Palmore (1975, p. 5) declared that disengagement is neither universal nor adaptive. He noted, "Disengagement is not inevitable, except immediately before death. . . . Most evidence indicates that disengaged older people tend to be unhappier, lonelier, sicker and die sooner than more active older people." Hochschild (1975) suggested three basic flaws in the disengagement theory. The "escape clause problem" (p. 554) involved seeing any evidence of lack of disengagement as merely a variation in the form or timing of disengagement; this ruled out counterevidence and made the theory unfalsifiable. The "omnibus variable problem" (p. 557) involved grouping a number of analytically distinguishable variables into umbrella categories; for example, Cumming and Henry treated nearness to death, awareness of death and age as if they were the same thing. Finally, the "assumption of meaning problem" (p. 560) centered on the fact that the actor's conscious conception of aging and disengagement were not researched but simply assumed.

At this point it seems crucial to determine exactly what, if anything, remains useful within the disengagement model. A necessary part of this process is a careful specification of variables. The current study revealed that chronological age per se may not be significantly related to disengagement. The findings clearly demonstrated that one social psychological factor (awareness of finitude) and one biological

factor (physical incapacity) were both more important than chronological age in predicting level of activity. In fact in the present sample when awareness of finitude and physical incapacity were controlled, the older subjects were actually more active than the younger subjects. Cumming and Henry (1961) suggested that a heightened awareness of the nearness of death and declining physical energy were primary causes of disengagement; yet they did not study either factor. They never operationalized death awareness, and they excluded sick persons from their sample. They simply assumed that heightened death awareness and declining health were correlated with chronological age. Hence, they and other researchers following them studied the relationship between age and disengagement with ambiguous results. The current study would suggest that the conflicting findings in the literature might be largely due to the fact that age is too little related to the variables that really shape disengagement. Disengagement with advancing age is not inevitable. Awareness of finitude and physical incapacity are better predictors of disengagement than is age.

The relationship of disengagement to morale has been examined in numerous studies shaped by a variety of theoretical models (role theory, activity theory, disengagement theory). The majority of these studies have found a lessening of interaction and activity to be associated with lowered morale. The present study confirms this majority report. It might be noted that Cumming and Henry (1961, p. 215) did not say that completed disengagement always meant high morale. They cautioned,

> Because the abandonment of life's central roles--work for men, marriage and family for women--results in dramatically reduced social life space, it will result in crisis and loss of morale unless different roles, appropriate to the disengaged state, are available.

Cumming and Henry suggested that when disengagement was forced on the aging individual it would be associated with lowered morale; however, they suggested that when the aging person chose to disengage he would not experience lowered morale. The current study found lowered morale to accompany disengagement even when disengagement was not forced by physical incapacity. However, other possible causes of forced disengagement such as widowhood or mandatory retirement were not examined by this study.

Methodological

A highly important unresolved problem in the study of social psychology is how to conceptualize and measure the phenomenon variously termed happiness, morale, life satisfaction or psychologically well-being. Bradburn and Caplovitz (1965) noted a lack of agreement both as to a name for this dimension and in regard to its measurement. Klemmack, Carlson and Edwards (1974) cited the following observation by Sells:

> Approaches to measurement of mental health are difficult enough to plan when the acknowledged experts disagree on what is to be measured. The difficulty is compounded when the search for measures produces a succession of instruments of questionable validity (p. 270).

Apparently what is needed is not more new scales but further validation and testing of some already in the literature. A scale frequently used in recent studies of aging (Moriwaki, 1974; Graney, 1975; Bynum, Cooper and Acuff, 1978) is the Affect Balance Scale. The current study provided a test of the basic assumptions of this scale.

Both the pilot study using the Affect Balance Scale (Bradburn and Caplovitz, 1965) and a later study by one of the original authors (Bradburn, 1969) reported that psychological well-being consisted of

two independent dimensions--positive affect and negative affect. The positive items had moderate to strong correlations with the other positive items but negligible correlations with the negative items; similarly the negative items were related to each other but not to the positive items. This same pattern was noted in the current study. All items were correlated to their own subscale (Positive Affect Scale or Negative Affect Scale); but only one item was correlated significantly to the other subscale. The Positive Affect Scale and Negative Affect Scale were both correlated to the total Affect Balance Scale but were not significantly related to each other. Thus the current study provided new support for the suggestion by Bradburn and Caplowitz (1965, pp. 19-20) that experiences producing negative feelings do not necessarily at the same time diminish positive feelings." Happiness may be viewed as a balance between positive and negative feelings and the relative predominance of one or the other. Bradburn and Caplovitz noted that positive and negative affect were correlated to different variables. Positive affect was related most strongly to social interaction. Negative affect was correlated to anxiety, marital tension and job dissatisfaction. The current study found the Negative Affect Scale to be correlated to two variables not significantly related to the Positive Affect Scale: perceived health and awareness of finitude. Other variables which correlated to the total Affect Balance Scale were correlated to both subscales.

In addition to providing a measure of two components of morale, the Affect Balance Scale total score allows some comparison of morale between various populations and time periods (Bradburn and Caplovitz, 1965). The current study provides the first available comparison base

for ABS scores among institutional populations. Moriwaki (1974) used a scoring system which provided a range of 0 to 10 on the ABS. She reported a mean score of 8.27 for her group of normal elderly persons compared to 4.25 for a group of elderly psychiatric outpatients. A recent study by Bynum, Cooper and Acuff (1978) reported a mean ABS score of 7.7 among senior citizens participating in a Senior Adult Educational Program at a community college; this study used Moriwaki's scoring system. Since the scoring system used in the current study produced a range of 0 to 20 on the ABS, sample means were divided by two to provide comparability with the other studies. Means for the three levels of care were 8.6 for cottage residents, 7.3 for congregate residents and 5.6 for nursing care patients. Thus it may be seen that the residents of retirement cottages have as high or higher morale than community residents with residents of congregate units somewhat lower and nursing care patients significantly lower.

Another methodological contribution of this study was the demonstration of the usefulness of dichotomous multivariate analysis. Although introduced by Coleman in 1964, the technique has not been previously used in the gerontological literature to the knowledge of this investigator. The procedure provides a useful means of examining the relative impact of several independent variables when the data gathering procedure does not meet the requirements of linearity and interval level measurement necessary for multiple regression. Thus dichotomous multivariate analysis provides a fruitful source of insights while not requiring assumptions difficult to attain in social research. The mathematics necessary are not complicated and may be performed on a hand calculator or programmed without difficulty.

A final methodological contribution of the present study is to provide a bridge between various fields of study. Research on aging has seldom focused on dying; studies on death and dying have largely ignored aging. A cross-fertilization of these two areas of research should be fruitful to both. Dying is the inevitable termination of growing old; the elderly are the group most affected by death and dying. The link between awareness of finitude and disengagement demonstrated by this study should encourage more interaction between gerontology and thanatology. Similarly the literature on old age institutions is founded on activity theory and largely ignores disengagement theory. Yet it is well known that many institutionalized persons are disengaged. Perhaps an understanding of some of the causes of disengagement may lead to productive hypotheses in studies of old age institutions. Hopefully this study may demonstrate the usefulness of disengagement theory in illuminating some facets of institutionalization.

Substantive

This study confirmed the usual suggestion found in the literature regarding programs and institutional care for the elderly. It found that activity is significantly related to morale. However, it demonstrated that availability of an activity program does not insure participation. The same activity program was available to persons in all three levels of care in the retirement village and the home for the aged; yet a minority of those in the nursing care units were high in activity count while those in the congregate units and cottages were almost all high in activity. Physical health and mental attitude are factors which may encourage, discourage or prohibit activity. In re-

gard to physical limitations, attention should be given to providing activities within the capability of patients with handicaps. In one rest home visited the television set in the lounge was broken; one of the few activities that would be physically possible for the more limited patients was unavailable. Lawton (1970a, p. 40) suggested in his "environmental docility hypothesis" that the more restricted a person is in terms of health, ego strength and so forth the more he is limited to the opportunities or lack of opportunities in his immediate environment. Lawton (1974) suggested a prosthetic environment in which the diminishing strengths of aging residents would be compensated.

In regard to mental attitude this study would suggest an addition to the Social Breakdown Syndrome proposed by Zussman (Bengston, 1973). This model suggested that elderly persons may degenerate mentally and physically after being labeled incompetent. A similar view was the suggestion by Kalish (1966) that social death may hasten physical death. What the current study would suggest is that the aging person rather than those around him may initiate the labeling process. He may perceive himself as near death and thus begin to constrict his life space. On the other hand he may perceive himself as having ample time and as a consequence remain more engaged in life. This self-labeling which this study has termed awareness of finitude may be crucial in terms of activity and morale. The question is, what interventions are possible to change the self-labeling process? What aspects of the social or physical environment may influence the aging resident's perception that "this is a place I have come to die"? What factors in the subculture of the residents may have a bearing? What staff interventions may prove effective? Kuypers and Bengston proposed a Social Reconstruction Syn-

drome in which positive inputs from the environment would counteract the vicious cycle of the Social Breakdown Syndrome (Bengtson, 1973, p. 48). The first input, "Liberation from functionalist ethic; evolution of alternate evaluations," could be a product of the aging subculture developed in an age-concentrated residential environment. The second input, "Improved maintenance conditions (housing, health, nutrition and transportation)," would be what Lawton (1974) referred to as a prosthetic environment. The third input suggested by Kuypers and Bengston is the one stressed in the current study: "Encourage internal locus of control; build adaptive problem solving." It was noted that the level of care determines activity count to a greater degree than would be explained solely by differences in physical capacity. A large part of the difference between levels of care is the varying amounts of freedom allowed and initiative encouraged. Nursing care units more closely approximate Goffman's (1961, p. 4) description of "total institutions," with planning and scheduling all major activities on a group basis by the administration. Cottages provide truly independent living; congregate units fall in between on the institutional or control dimension. The current research would suggest that nursing care units should encourage the maximum autonomy and responsibility of which each resident is physically capable. More attention should be given to involving the residents in planning and conducting activities. Bengtson (1973, p. 49) suggested,

> Imagine, for example, an old age home whose . . . decision-making bodies are exclusively comprised of the elderly themselves. While the nursing and social service staff, for example, might be younger people, they are the servants of the elderly board of directors, the elderly committee structure and the elderly administrators. . . . This would enhance the internal control which is the hallmark of competence.

This suggestion has found support in several recent studies. Wolk and

Telleen (1976) found environmental constraint inversely related to life satisfaction. Reid, Haas and Hawkings (1977) reported elderly persons who had less sense of control had a poorer self-concept than those who felt they had some control over their lives and environments. Lipman and Slater (1977a) suggested residential settings for the elderly should encourage self-help and mutual assistance rather than dependency among their residents.

Increased autonomy might encourage residents not to see themselves as "as good as dead." Death is inevitable; psychological preparation for death may lead to disengagement. Yet carried to an extreme this may bring about a premature end to productive and enjoyable living. In the words of Justice Oliver Wendell Holmes, who died at the age of 93,

> Some people as they approach 70 begin to prepare to die; others prepare to live until they reach 90. Now if the ones who prepare to live to 90 die at 70, they won't know the difference. But if the ones who prepare to die at 70 live till they're 90, then the last 20 years could be hell (U.S. Dept. of Army, 1978, p. 1).

Suggestions for Further Research

Awareness of finitude is a research variable that is fruitful as an intervening variable between age and activity level; it should be included in any future research on the disengagement theory. However, the item used to measure it in thecurrent study was not completely satisfactory due to the 30 percent nonresponse on this question. Marshall (1973) found this item to provide a middle ground between an item providing a higher response rate but less specific information (the death line) and an item providing the most specific information but lowest response rate ("How old do you think you will live to be?") The item used by Marshall and in the current research (asking respon-

dents to estimate the time remaining in their future in terms of one of four fixed choice responses) was developed by Chellam (1964) as part of her Awareness of Death scale. This scale used a variety of items such as number of funerals attended, whether obituaries were read regularly and whether the subject had future plans. It might be argued that some of her items (such as funerals attended) might be causes of awareness of finitude rather than measures of awareness of finitude. Perhaps there is no way around a fairly low response rate on an anxiety provoking subject such as death. Yet it might be that other pieces of information might be used to supplement a direct approach. Lipman and Marden (1966) asked about concrete preparations for death such as laying aside money for funeral expenses, arranging for a grave, making a will and so forth. Discussing some of these other items first might also give the subject time to overcome his initial reluctance to discuss death and thus provide a higher response rate to the item regarding his expectation of his time remaining in his future.

In addition it would be useful to ask questions dealing with other attitudes toward death. For example, does the subject await death expectantly or fearfully? Is death viewed as a welcome release or an enemy? What are his reasons for living? In what circumstances does the subject feel death might be better than life? What are his views regarding life after death? Such questions as these could give depth to a study of awareness of finitude. Research hypotheses could focus on such issues as whether the religious person is less likely to deny his finitude than the nonreligious person and whether a person who fears death is more likely to deny its nearness.

Future studies are needed to examine whether awareness of finitude

is a decisive factor among other groups of aging persons than those in residential institutions for the elderly. It has been pointed out that institutional residents may be particularly aware of their approaching death. Is awareness of finitude a significant factor among community residents or only among those in age-concentrated environments? Replication of the basic research design in the community setting could help answer this question.

Finally, future research should include at least three variables not included in the present study. Socioeconomic status has been found to be strongly correlated to both activity and morale among the aging. An objective measure of financial resources should be included as a control variable. Marital status should also be considered. Widowhood is a type of forced disengagement. Marital status has been found significantly correlated to morale. In addition future studies should examine the impact of ethnic background. Most studies in gerontology have focused on white subjects. It is known that black persons are underrepresented in old age institutions. What differences there may be in the attitudes of aging persons of different ethnic groups is largely unknown at this time and should be researched.

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APPENDIX

INTERVIEW SCHEDULE

Name _____

Institution _____

Staff Rating

1. How much assistance does this patient need with activities of daily living?

	0 No Help	1 Some Help	2 Much Help
Bathing	_____	_____	_____
Dressing	_____	_____	_____
Toileting	_____	_____	_____
Transfer	_____	_____	_____
Continence	_____	_____	_____
Eating	_____	_____	_____

2. What is this patient's mobility status?
   _____0 Can walk unassisted
   _____1 Needs walker or other assistance
   _____2 Needs wheelchair
   _____3 Bedfast

3. How much time does this patient spend engaged in activities (either in his room or elsewhere)?

   _____0 None
   _____1 Low level of activity
   _____2 Moderate level of activity
   _____3 High level of activity

Observations by Interviewer

1. Sex
   ____0 Female
   ____1 Male

2. Attention shown to personal belongings in patient's room
   ____0 Unkempt
   ____1 Moderate
   ____2 Neat and orderly

3. Attention to personal grooming
   ____0 Unkempt
   ____1 Moderate
   ____2 Neat (hair combed; for women--makeup; for men--shaved)

Interview Questions

1. What is your age? _____

2. What activities do you take part in? What do you enjoy doing?

   _____ _____

   _____ _____

   _____ _____

   _____ _____

   (After the patient has mentioned all he can recall, ask about the remaining items on the following list.)

   ____ watching television or listening to the radio
   ____ reading
   ____ writing letters
   ____ playing games
   ____ visiting
   ____ arts and crafts
   ____ buying things
   ____ parties
   ____ religious services

3. Do you have things here in your room that mean a lot to you?
   ____ 0 No
   ____ 1 I guess so
   ____ 2 Yes, very much

4. Do you enjoy your meals?
   ____ 0 No
   ____ 1 Sometimes
   ____ 2 Yes

5. What is your favorite food?
   _____ 0 I don't know or I don't have any
   _____ 2 Any food or foods named

6. I'm interested in the way people are feeling these days. Looking at your present life situation, do you ever feel:

   Particularly excited or interested in something?
   _____ 0 No
   _____ 1 Sometimes
   _____ 2 Yes

   Very restless?
   _____ 2 No
   _____ 1 Sometimes
   _____ 0 Yes

   Proud because someone complimented you on something you had done?
   _____ 0 No
   _____ 1 Sometimes
   _____ 2 Yes

   Very lonely or remote from other people?
   _____ 2 No
   _____ 1 Sometimes
   _____ 0 Yes

   Pleased about having accomplished something?
   _____ 0 No
   _____ 1 Sometimes
   _____ 2 Yes

   Bored?
   _____ 2 No
   _____ 1 Sometimes
   _____ 0 Yes

   On top of the world?
   _____ 0 No
   _____ 1 Sometimes
   _____ 2 Yes

   Depressed or very unhappy?
   _____ 2 No
   _____ 1 Sometimes
   _____ 0 Yes

   That things were going your way?
   _____ 0 No
   _____ 1 Sometimes
   _____ 2 Yes

Upset because someone criticized you?
_____ 2 No
_____ 1 Sometimes
_____ 0 Yes

7. Would you say your own health, in general, is excellent, good, fair or poor?
_____ 0 Poor
_____ 1 Fair
_____ 2 Good
_____ 3 Excellent

8. Which one of these would you say about your own future?
_____ 0 I shall be around for some time yet; more than 10 years.
_____ 1 I have a while longer; at least 5 to 10 years.
_____ 2 Not too much longer; less than five years.
_____ 3 The end may be any time now.

VITA 2

John Stewart Sill

Candidate for the Degree of

Doctor of Philosophy

Thesis: AWARENESS OF FINITUDE AND DISENGAGEMENT IN OLD AGE RESIDENTIAL ENVIRONMENTS

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