Problems regarding the aged in developing nations are examined. The aging of populations is now a global phenomenon, with crucial implications for the developing as well as the developed nations. Six articles are presented: "Introduction, Perspectives on Aging in the Third World" (Jay Sokolovsky), "What Can the Industrial World Teach the Third World about Aging?" (Marea Teski), "Decrepitude and Death-Hastening: The Nature of Old Age in Third World Societies" (Anthony P. Glascock), "The Motive for Gerontocide" (Robert J. Maxwell, Philip Silverman, and Eleanor K. Maxwell), "Increase of Elderly Poor in Developing Nations—The Implications of Dependency Theory and Modernization Theory for the Aging of World Population" (Masako Osako), and "Toward a Comparative Perspective on Filial Response to Aging Populations" (Robert L. Rubinstein and Pauline T. Johnsen). Notes on the contributors are provided. (RM)
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Contents

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Aging and the Aged in the Third World: Part I

Jay Sokolovsky
Guest Editor

Jay Sokolovsky
Introduction, Perspectives on Aging
In the Third World.............................. 1

Maree Teski
What Can the Industrial World Teach the
Third World About Aging?......................... 23

Anthony P. Glascock
Decrepitude and Death-Hastening: The
Nature of Old Age in Third World Societies.... 43

Robert J. Maxwell, Philip Silverman, and
Eleanor K. Maxwell
The Motive for Gerontocide...................... 67

Masako Osako
Increase of Elderly Poor in Developing
Nations -- The Implications of Dependency
Theory and Modernization Theory for the
Aging of World Population...................... 85

Robert L. Rubinstein and Pauline T. Johnsen
Toward a Comparative Perspective on
Filial Response to Aging Populations..........115

Notes on the Contributors..........................173
INTRODUCTION

PERSPECTIVES ON AGING IN THE THIRD WORLD

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Introduction

By the year 2025 there are expected to be 1.1 billion persons in the world 60 years or older and China alone will have about as many people of this age as there will be persons of any age in the United States (Husberg 1982a). Such projections have led to the realization that the aging of populations is now a global phenomenon, with crucial implications for the developing as well as the developed nations. Recognizing this, the United Nations in 1982 held a World Assembly on Aging which stimulated new studies and reports providing an international perspective on aging (Binstock, Chow and Schulz 1982; Oriol 1982; Selby and Schecter 1982; Thomas and Maddox 1982).

Over the past quarter of a century, an interdisciplinary field of gerontology which probes the processes of aging and the condition of the aged in contemporary industrial nations has developed rapidly. The mounting intensity of this research has been stimulated by unprecedented shifts in age-structure and increases in life-expectancy within such countries. With 75-80 percent of these populations surviving past birth to age 65 and the average span of life inching towards 80, some Western European nations already have more
than 14 percent of their populace over age 65—Denmark 14.25 percent, France 14.3 percent, Federal Republic of Germany 15.3 percent, and Sweden 15.4 percent (World Bank 1980). Compared to the situation in industrialized nations, serious examination of gerontological issues in Third World countries and their diverse cultures is still in its infancy. It is only in the last several years that many governments in the developing world have begun to establish a research and care-giving infrastructure capable of assessing and responding to the needs of their elderly citizens (Teicher, Thursz and Vigilante 1979; Palmore 1980; Little 1982).

In anthropology despite the early seminal book by Leo Simmons, *The Role of the Aged in Primitive Society* (1945), and articles by such luminaries as Gregory Bateson (1950) and Margaret Mead (1951, 1967) concern for a world-wide, cross-cultural analysis of aging has developed slowly. This cannot be totally blamed on a lack of data. Especially in non-industrial societies where age was an important factor in group formation, ritual performance or control over the means of production, details of the life of the aged could be gleaned from classic ethnographies. Particularly noteworthy in this regard are studies of East African "age-set" societies (Dyson-Hudson 1963; Spencer 1965), Australian aboriginal systems of gerontocratic ceremonial control (Warner 1937; Kaberry 1939; Hart and Pilling 1961) and the cross-generational transfer of property among Western Irish peasants (Arensberg and Kimball 1940). However, it was not until the publication of the edited volume *Aging and Modernization* by Cowgill and Holmes in 1972 that the knowledge from modern ethnographic studies was employed to test gerontological theory. Here detailed studies of 14 different societies (seven being non-Western) were compared to examine the impact of industrialization, urbanization and Westernization on the status of the aged. As will be seen in these two volumes, the theoretical propositions developed by Cowgill in *Aging and Modernization* and later works (1974, Forthcoming) have served as a most controversial stimulus to subsequent work on aging in the Third World.

Over the last decade an "anthropology of aging" has begun to emerge through gerontologically focused ethnographies and articles, edited volumes (Myerhoff and Simic 1979; Fry 1980, 1981; Amoss and Harrell 1981; Hendricks 1981; Sokolovsky 1983,) texts (Keith 1982, Holmes 1983; Cowgill Forthcoming) and special journal issues such as this one (see also Keith 1979; Beall 1982; Nydegger 1984). Importantly, two new
works New Methods for Old Age Research (Pry and Keith 1984) and Age and Anthropological Theory (Keith and Kertzer 1984) have finally brought to bear the distinct realm of anthropological methods and theory to questions of aging and the aged.

Nonetheless, it is somewhat ironic that the majority of this avalanche of new work does not deal with Third World peoples but rather with ethnic and residentially based subcultures of elders living in industrialized nations. This volume is the first in a two-part series conceived in the hope of reversing this trend by providing both theoretical/comparative articles and analyses detailing the regional ethnographic context of aging in the developing world. Part I deals with four broad comparative issues: (1) the impact of demographic change; (2) massive change and structural transformation; (3) treatment of the elderly; (4) the family context of care-giving to the elderly. In Part II discussion of these issues will be embedded in ethnographic studies of aging in New Guinea, China, India, Sudan and Mexico.

Demographic Change and the Lessons to be Learned

At first glance it might seem that excessive interest by social scientists about aging in the Third World would be a case of misplaced research priorities. In the poorest developing countries the average span of life from birth remains abysmally low. For example, in Africa, six nations in 1980 had life-expectancy projections of 45 years or less. Ethiopia's figure of 39 years ties it with Yemen as the population least likely to make it into old age (World Bank 1980:10-11). However much of the difference between these low life-expectancies and those recorded in Western industrial societies (averaging 74 years) can be attributed to the very high levels of infant mortality still persisting in the Third World. One must note, for example, that although the expected years of life at birth in the United States (73 years) exceeds that for Nigeria by 25 years, males at age sixty in the United States can only expect to survive three years longer than similarly aged men in Nigeria (Selby and Schechter 1982: 208-209).

In contrast to the almost universally "aged" industrial countries where the elderly account for at least one-tenth of the citizenry, structural population aging is barely apparent in the Third World. As of 1980 the elderly made up 5.8 percent of the world's population with the percentage of those over 65 in
developing regions only one-third (3.9 percent) that found in the developed world (11.4 percent). As indicated by Counts's study of the Lusi in part II or the demography of South Africa's San people (Howell 1979), persons labelled as "elders" can occasionally compose as much as ten percent of some small scale preindustrial communities. However, "old age" in these instances is socially determined and begins somewhere between the chronological ages of 45-55 years. It is typically found that between one to four percent of such populations are over age 65. Most Third World nations are classified as demographically "young" with less than four percent of their population over 65 -- Honduras 2.6 percent, Ethiopia 2.7 percent, Egypt 3.4 percent -- or "youthful" with four to six percent over 65 -- Bolivia 4.2 percent, Cameroon 4.4 percent, China 5.6 percent -- (World Bank: 1980). In the near future some Third World countries are even expected to show a slight decline in the percent of the elderly as improved health care is likely to have the greatest impact on keeping children alive rather than reducing mortality in adults.

Yet, this set of statistics does not tell the entire story. The 1980s are witnessing a dramatic numerical demographic transition with the non-industrialized nations of the world now containing a majority of the world's elders. While over the next two decades these countries will not experience the type of "societal aging" now faced by North America, much of Europe and Japan, they will have to contend with an extraordinary increase of 154 percent in actual numbers, going from 200 to 350 million aged. By the year 2000 developing nations are expected to add 9.4 years to life-expectancy and contain 60 percent of the world's population over age 65. Some regions of Latin America and Africa are expected to enter the twenty-first century with the world's most rapid increases in both the very youngest (under 15 years of age) and the very oldest (80 years and over) segments of their populations! (See Myers 1982 and Nusberg 1982 for analysis of recent demographic data on the elderly throughout the world).

It is important to note that the most rapid population increases are expected for persons over 80, those most in need of the types of medical care and services which are virtually non-existent in many parts of the Third World. While, between 1980 - 2000 the number of people over 80 in North America is expected to rise by 56 percent, more substantial increments will be found in West Africa (143 percent), Tropical South America (138 percent), South East Asia (113 percent) and China (92 percent) (Myers 1982:26-27).
Such changes when coupled with increasing poverty, overurbanization, the accompanying rural exodus of young adults and alterations in ideological systems may create the greatest problems for the aged in what are now considered "traditional societies."

In the light of such pessimistic assumptions, Marea Teski explores what the Third World can learn from the experience industrial countries have had with aging. She considers some of the difficulties the United States has encountered with its rapid rise in elderly citizens and points to some of the negative implications of forced retirement and the increasing commodification of economic and social relations. To anticipate the consequences of these changes Teski suggests that Third World countries begin to examine the variation in their aged's regional concentration, degree of economic participation, living arrangements, and chronic health problems. She further suggests some ways in which non-Western cultural patterns may serve to buffer for the elderly, the potentially deleterious effects of changing social systems. Above all, it is cautioned that developing nations should attempt to get into place appropriate institutional changes before being forced to by demographic imperatives.

Massive Change and Structural Transformation

The demographic changes taking place in the Third World are intertwined with alterations in health care, economic production and the distribution of wealth, the organization of families and communities, the very structure of states and their link to major industrial powers. In considering how massive world-wide change has impacted on the elderly, "modernization" theory has dominated research in comparative gerontology over the last decade.

Most briefly modernization theory has developed as an extension of a Parsonian, functionalist interpretation of societal evolution from relatively undifferentiated rural/traditional-based societies with limited technology to an urban-based entity using complex industrial technology, non-animate energy sources and differentiated institutions to promote efficiency and progress. Third World countries are said to develop/progress as they adapt through cultural diffusion, the modernized model of rational/efficient societal organization. While such a transformation is often viewed as an overall advance for such countries a strong inverse relationship is suggested between the
elements of modernization as an independent variable and the status of the aged as a dependent variable. Donald Cowgill, first by suggesting a number of discrete postulates (1972) and then in developing a more elaborate model (1974b) has been the most dominant writer on this subject. The hypothesized decline in valued roles, resources, and respect available to older persons in modernizing societies is said to stem from four main factors: modern health technology; economies based on scientific technology; urbanization; mass education and literacy.

Validation of this model has been spotty at best and has spurred a small industry of gerontological writings, which debate the proposed articulation of modernization and aging (see Finley 1982 for an excellent review). Historians have sharply questioned the model saying it is not only ahistorical but that by idealizing the past, an inappropriate "world we lost syndrome" has been created (Laslett 1976; Fisher 1978; Achenbaum 1982; Quadrano 1982). Goldstein and Beall (1981) argue that the concept "status of the aged" must be constructed as a multidimensional variable with no necessary assumption of co-variance between the different dimensions of status. Examination of ethnographic studies has suggested the need to consider variations within given elderly populations based on such factors as health (Glascock, this volume), sex (Cool and McCabe 1983; Roebuck 1983, also see the articles in part II), and age-cohorts (Foner 1984a). The confounding effects of class stratification, kinship systems, value systems and political-economy have also been noted (Palmore 1975, Rhoads 1982, Holmes and Rhodes 1983; Goldstein and Beall 1982; Simic 1983; Foner 1984b). Particularly important in this regard is the study of socialist societies such as China which have taken non-Western paths to societal development (Ganschow 1978; Cherry and Magnuson-Martinson 1979; Treas 1979; Davis-Friedmann 1984; Sankar Part II).

Perhaps the most far-reaching challenge to modernization theory stems from "dependency" or "world-systems" models of global development. Such theorists as Amin (1976), Chase-Dunn and Rubinson (1977), Frank (1979), and Wallerstein (1979) contend that the lack of development in Third World countries is not predicated on a failure to adopt "modern ways" but determined by a historic process of continuing underdevelopment. This is based on an international division of labor which allows capital accumulation to take place in core nations of a capitalist world system while these countries control the developmental process in semi-peripheral
and peripheral countries. Overall, it is contended that the tie of dependent nations to core industrial powers through multinational corporations and foreign aid has resulted in the enhanced position of favored urban elites at the cost of growing rural impoverishment and internal inequalities. Jon Hendricks (1982), one of the few writers to consider aging from a world-systems perspective, suggests that the situation of the elderly will be determined by their "use-value" relative to the demands of the core sector or the extent to which they "embody old ways inimical to core interests" (p. 341).

Masako Osako, in her article for this volume examines, from the differing perspectives of dependency and modernization models, some of the implications of world-wide industrial development on the elderly poor. The ultimate question asked here is under what circumstances is international economic aid to developing countries conducive to reducing poverty among the elderly? To address this issue the author discusses the case of Taiwan, one of the only non-socialist Third World nations which over the last 20 years has simultaneously reduced material inequalities and undergone rapid economic development. During this time the elderly appear to have maintained remarkably well-integrated into the economy and their local communities. Crucial factors were the continued participation of the elderly in rural agriculture and urban based, labor-intensive light industry as well as a value system which affords considerable deference to the aged. It should be kept in mind however that Taiwan is a somewhat deviant case of Third World development considering the lack of entrenched local elites after the nationalist takeover and the extraordinary infusion of aid from the United States.

The study by Masako points to the need to take account of the elderly in successful rural development schemes. Through the impetus of migration by the young to cities, artificially high percentages of the elderly can be created in rural areas. In this context the health status of the aged looms as a serious issue as more of the production of staple food crops is heaped upon their shoulders. Quite frequently two-thirds of males over 65 in the world's poorest nations remain economically active. Figures as high as 81 percent and .84 percent can be found in Bolivia and Bangladesh respectively (Petri 1982). The problem of low agricultural productivity in the Third World is amplified by high levels of population growth. The perceived options for support when one grows old
has been shown to have a connection to decisions which influence fertility rates. In the world's poorest countries where infant mortality averages 142 per 1000 births (Weiss and Jennings 1983), women need to give birth to at least five children to statistically assure that one son will survive long enough to support them in old age. The beneficial impact, with regard to fertility, of extending pension programs to peasants and other agricultural workers is just being recognized. In a study of sugar cane workers in Mexico's Papaloapan River Basin it was found that over a ten year period "participation in old age pension systems has a significantly negative effect on fertility" (Aging International 1980:11).

Treatment of the Aged

One of the promises of a truly cross-cultural comparative gerontology is to gain an understanding of aging divorced from the narrow boundary of a single cultural perspective. The first serious attempt to accomplish this was the massive statistical study by Simmons (1945) analyzing the relationships between 109 socio-cultural traits and old age in 71 societies. For almost forty years this work has remained a fount of knowledge about aging around the world and a point of departure for subsequent research. However, one must be cautious about the statistical results. As might be expected from one of the first studies using the Human Relations Area Files the methods were flawed by a poorly drawn sample, inadequate statistical controls and an imprecise definition of some key variables. Nevertheless, the many insights Simmons provided have served as a guidepost to recent controlled comparisons and holocultural studies seeking to uncover variables which are associated with high status and deference shown towards the elderly.

Working independently with small cross-cultural samples Cowgill (1972) and Press and McKool (1972) proposed similar variables which account for high status in traditional peasant societies. These involve four interrelated sets of cultural phenomena:
1) an available role-set emphasizing continuity, and important responsibilities in a community organization;
2) integration into a residentially viable extended family organization;
3) control of some important material and informational resources;
4) a value system deemphasizing a concept of individual ego development.
A series of holocultural studies have corroborated in many respects the association of status and deference with the control of informational and administrative roles (Sheehan 1976; Silverman and Maxwell 1983) as well as valued activities and extended family integration (McArdle and Yeracaris 1981). In terms of resource and information control, Silverman and Maxwell (1983) have recently demonstrated that only certain types of control, particularly administration and consultation, correlate with beneficent treatment of the elderly. Some forms of supernatural information control, especially transformational powers were in fact a potential threat to the elderly. This fact is highly relevant to some historically known situations of massive societal change, such as in 13th-16th century Europe where the majority of persons burned at the stake for their "transformational knowledge" (witchcraft) were middle-aged and older females (Bever 1982).

The two world-wide statistical studies reported on in this volume deal with the darker side of aging—various types of non-supportive and even "death-hastening" behaviors directed toward the elderly. Both articles make it clear that being old in a small-scale, traditional, face-to-face community does not necessarily prevent cultural variants of "gran-slamming" from occurring. Killing of the aged was found in about one-fifth of the samples with Glascock finding 84 percent of the societies exhibiting various forms of "non-supportive" treatment and Maxwell, Silverman and Maxwell noting "negative deference" in 62 percent of their cases. However, few societies enforce a single treatment of their elderly and it was commonly found that both supportive as well as death-hastening behavior co-exist in the same social setting. Glascock's study demonstrates that when anthropologists have cared to probe the later stages of the life cycle they have found cultural distinctions drawn between "intact", fully functioning aged and "decrepit" individuals who find it difficult to carry out even the most basic tasks. It is persons placed in this latter category toward which geronticide or death-hastening is most frequently applied. The complex relationship between treatment of the elderly and changes in their labelling is further explored in several of the articles in part II.

The article by Maxwell, Silverman and Maxwell explores more deeply the dynamics of showing contempt for the aged. They find it more common in societies with non-agricultural subsistence patterns, bilateral descent, and low levels of social stratification.
It is in such settings that younger adults are more likely to complain about the physical deterioration of older individuals. The authors conclude that in these situations the old person's limited economic "marginal utility" sets off a sequence of events involving complaints, devaluation and in some cases geronticide. It is intriguing to ponder the similarity in how some non-industrial societies redefine their aged as a prelude to a hastened death, with the dehumanization process sometimes found in our own nursing homes (see especially Vesperi 1983).

The Family Context of Caregiving to the Elderly

Leo Simmons in his examination of the role of the aged in 71 non-industrial societies observed that "throughout human history the family has been the safest haven for the aged. Its ties have been the most intimate and long-lasting, and on them the aged have relied for greatest security" (1945:176). Today in Third World nations it is still generally the case, even in urban areas that a majority of older adults reside with younger relatives and must rely exclusively on familial resources for survival. For families in these countries the capacity for care of the aged is shaped not only by values and kinship structures but also by demographic conditions producing an adequate number of potential caregivers. Here the mean number of persons aged 45 to 49 per hundred individuals aged 65 to 74 was 163 in 1975 compared with 92 in the industrialized countries (Giele 1982:44).

Although many of the world's poorest countries - e.g. Afghanistan, Chad, Mali, India, Haiti - have legislated some type of public pension system, often less than one-third of the economically active population are eligible for benefits which when applicable amount to only 40-50 percent of pre-retirement wages (U.S. Department of Health and Human Services 1982; Petri 1982). Such entitlement programs seldom reach rural sectors where 75 percent of the Third World elderly live. Commonly the rationale for the lack of extending pension programs to peasant populations is that the family can tend to the needs of all its members. This perception was echoed at the recent World Assembly on Aging by some Third World delegates who maintained that the oldest citizens in their countries required no special attention due to the continued strength of the extended family. However, according to Nusberg, others in attendance recognized that rapid changes have in some
cases outstripped the capacity of developing nations to satisfy the needs of the oldest age groups (1982b:2).

There is in fact growing evidence that "traditional societies" should not be so sanguine about the capacity of family systems to ensure the well-being of aged relatives. This was illustrated by the results of a study by Goldstein, Schuler and Ross (1983) of Hindu households in Kathmandu, Nepal, where 61 percent of all aged individuals lived with at least one son. It was found that while the ideal form of the family persisted, the material and psychological foundations of filial support were rapidly disintegrating. The authors found it particularly ironic that given the Hindu ideal value of depending on a male child in old age, "the most truly miserable elderly parents were the very ones who objectively were completely dependent upon a son" (p. 722). More will be said about aging in the Hindu family by Sylvia Vatuk in Part II.

In this volume's final article, Johnson and Rubinstein suggest a new approach to caring behaviors extended to the elderly within the framework of kinship structures. They reject using dichotomous constructs such as extended versus nuclear families as an empirical basis for comprehending variations in filial response. The need for going beyond such simplistic contrasts is examined through the fieldwork of one of the authors on the Melanesian island of Malo in Northern Vanuatu. Under pre-modern indigenous patterns, elderly men who graduated through fifteen stages of a hierarchical status system (sumbuea) obtained significant power but such elders were far more feared than revered. An exceptionally high level of intergenerational conflict and violence seems to have existed at this time with the notion of care seldom part of family relationships. In a dramatic turnabout, marked by the abandonment of the sumbuea system and polygyny, a shift to conjugal households and the acceptance of Christianity, a notion of caring became the cornerstone of intergenerational kin relations. Johnson and Rubinstein, by analysing cross-generational care giving on Malo and in other cultures, suggest viewing filial response as a processual phenomenon along the dimensions of aging, kinship and opportunity. This notion serves as a bridge to the articles in Part II which will discuss the functioning of the aged in familial and fictive kin settings in five ethnographic contexts.
FOOTNOTES

1. For the most extensive list of books and articles on aging throughout the world, see Sokolovsky 1982 and Silverman 1983.

2. An exception to this statement is the reader by Amoss and Barrell (1981).

3. The designation of populations as either "aged" (10% or more over age 65), "mature" (7-9.9% over age 65), "youthful" (4-6.9% over age 65), or "young" (0-3.9% over age 65) is taken from the classification used by Cowgill (1974A). These categories differ slightly from the system used by United Nations demographers.

4. The figure of five children comes from an analysis by Migdal (1974:980100) of the relationship between life-expectancy, infant mortality and the number of children parents must have to be 95% certain that one son will survive until the father's 65th birthday.

5. The term "gran-slamming" is a colloquial phrase used by some popular writers on gerontology. It usually refers to physical abuse of elderly individuals by younger relatives.
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26

WHAT CAN THE INDUSTRIAL WORLD TEACH
THE THIRD WORLD ABOUT AGING?

MAREA TESKI
Stockton State College

The industrial nations of Europe and North America are the first to have large populations of aging citizens. These societies have gone through a dramatic rise in the numbers and proportion of elderly people, and there is the expectation that numbers will continue to rise until at least the year 2020.

Are there elements of the experience of the industrial nations which may also be translatable to the situation of developing countries? As we did in the past, they now seek rapid industrialization and modernization. As we have, they will experience a change in population composition as infant and childhood mortality decrease and diseases of the later years are better controlled. The cultures of the Third World are different from our own, and modernization entails, in many ways accepting "foreign" ways. Yet they may face similar pitfalls as the numbers of their elderly increase. Perhaps they can take warning from some of our mistakes and can use our experience as a guideline for planning their futures.

It is important to stress that the question we are asking is whether the industrial world can, in any way, serve as a model for the Third World. To be sure, in many ways, the developing countries, with their still strong ties to older customs, can teach
us something about incorporating the elderly into the fabric of life. In many societies of the Third World, the elderly are not thought of as a group apart. Elderly people are parts of families and of communities and find their life meaning in sharing these worlds. Separation of age groups and atomization of social function are some of the results of modernization and industrialization for us. Ironically our demographic changes—making us a "grey" society have been accompanied by other changes which have resulted in structures in which there are no real social functions for elderly citizens.

It is from our experience that the Third World countries can benefit. We can point out for them the significant junctures for change. Perhaps we could point out times when appropriate actions should have been taken to assure the emergence of a society prepared to accommodate a large aging population.

World Trends in Population

Using the United States as our example of what has happened in the industrial west, some striking facts about population emerge. Since 1900, the numbers of elderly have increased at an astounding rate. Totally the increase is from 3 million elderly in 1900 to over 25 million in 1979. (U. S. Bureau of Census 1980) Along with this dramatic rise in the over-65 population there has been an expanding consciousness of the aged and the many processes of aging.

Consciousness of the aged and the aging process has increased our desire to build a society friendly to the elderly, but attempts have been limited in scope and effectiveness. However, our experience has taught us the necessity of looking to the future, and study of the aged in other cultures affords a basis of comparison. We know that insofar as modernization brings a decrease in infant mortality and other deaths from infectious disease that it will eventually allow more people to live until old age in the Third World countries. If the increase of numbers of elderly in developing countries is sudden, it will be similar enough to our own experience to allow us to offer our past as a case study from which developing nations may benefit.

United Nations figures suggest (Hauser 1976:74) that in the next decades there will be an increase in the percentage of people over 65 in all areas of
the world except Europe, North America, and the Soviet Union. In North America the absolute numbers of older people will increase, even though their percentage in the population may decline. South and East Asia, however, will experience an elderly "population explosion", with an increase of from 36 to 99 million elderly in South Asia and from 40 to 99 million elderly in East Asia. Latin America and Africa will more than double their elderly populations, (Latin America from 10 to 29 million and Africa from 10 to 27 million) although the increase in percentage of elderly in these areas will be slight.

Thus all the areas of the world which we designate as less developed will have the increased social responsibility of more elderly people in their populations. Hauser (1976) surmises that the less developed nations, being also less urban, may encompass care of the elderly within the traditional family networks, but will have need of better geriatric medicine to meet the needs of the longer living populations. However, the rapid urbanization which has taken place in some less developed countries is also a source of the breakdown of family networks.

It is important in assessing the well-being of the elderly in any country to take into account where they live and what their changes of residence, if any, may be. It will be extremely important for developing countries to know whether the elderly are likely to remain in rural areas or, as in the United States, to become urban dwellers. It will be important to predict or identify concentrations of elderly citizens in certain states or parts of a Third World country. With this knowledge, communication and services for elders are more easily developed. Future problems can be avoided and planning facilitated when regional and national patterns of elderly residence as well as their migration patterns are known.

Residence And Migration Patterns Of United States Elderly

In the United States, the most populous states have the highest concentration of elderly persons. In 1977 (Wiseman 1979:25) 25 percent of our elderly population lived in three states - New York, California, and Florida. Pennsylvania, Ohio, Illinois, Michigan and Texas also had large numbers of elderly residents. There seems to have been an uneven change in the distribution of the elderly population, for in 1910 the
location of elderly people was almost uniform for the whole nation. In sixty years the distribution has changed to one in which there is a concentration of elderly people in some states. These concentrations, Wiseman notes (1979:25) may be caused more by the out-migration of younger people than by the in-migration of older people. Florida is an obvious exception to this rule. Generally, the migration rate for the elderly is low and aging where one has lived is the norm. However, when elderly people do migrate, they go to Florida, California, Arizona and the Pacific Northwest. The heaviest migration of elderly is from the Northeast to Florida.

The Elderly As Urban Dwellers

Although the U.S. central city population has shown an absolute decline, the numbers of elderly who live in the central parts of cities have increased since 1950 at more than twice the rate of the total population. (Golant 1979:39) It is important to note that during this same period there has been considerable movement of the non-elderly out of central city areas. The implications of having concentrations of elderly in central city areas for both services and crime prevention needs are clear.

In regard to rural areas, we know that the proportion of elderly who live here is less, but that the absolute numbers of elderly in the countryside have increased. For the future, we can predict that, since more young people have migrated to suburban and rural areas, the proportion of elderly in these areas will increase as the now middle aged and young grow old in place. (Golant 1979:39) Thus there may be another shift in the type of area where there are concentrations of elderly.

Demographic information, interesting in itself, is best used for constructive planning. For the United States we know where elderly people are concentrated residentially. We know that their migration rate is low and where they go if they do migrate. Developing countries have the opportunity to study our demographic shifts of elderly population and to determine whether similar changes might affect them. If they are committed to planning for the future, such information will help them to decide on the allocation of resources for any services which will be mainly for the elderly.
If the type of modernization sought by a given developing nation is of the sort which attracts many job-seekers to urban areas, the initial result may be, as in our experience, that many elderly people will be left in the countryside. Urbanization occurring before modernization and industrialization is a common experience in the Third World. If their modernization is more advanced, eventually urban areas may be filled with large numbers of the elderly. Hauser (1976) predicts that in Third World countries where there is rapid urbanization and also an increase in numbers of elderly citizens that social difficulties for migrants into cities will increase for all age groups. Cities, then would be the main locus of new problems for all age groups.

Rapid social change has been documented as a difficult situation for any group to deal with, and the stresses will be even more difficult for the elderly to withstand. Lack of preparation for modern life may well be the main barrier to successful adjustment to change in the older population. Adherence to the traditional values and lifeways may make the initial stages of modernization easier for them, but eventually cultural conflicts, limited resources and inadequate social aid may combine to make life very difficult for Third World elderly.

Critical Information and Elderly Populations

In order to make satisfactory arrangements when there are large numbers of elderly in the population certain kinds of information are very significant. Life expectancy and causes of death are important to know—especially if this information is in process of change. It is important to know the economic status of the elderly and the extent to which they work—both in the labor market and in the home.

The living arrangements of older people relate to all the previously mentioned categories of information. It is important to know if the elderly—single or married—live with younger relatives. Different life expectancies for men and women in the United States mean that more women are in the position of having to live alone after the death of a spouse or to make other living arrangements. Since older women in the U.S. are the fastest growing segment of people living below poverty level this statistic is extremely important to take into account.
Let us consider some of the critical categories in more detail, using the U.S. example.

**Life Expectancy and Cause of Death**

In the year 1900 in the United States, only 39 percent of those born could be expected to live until age 64. (Denning and Cutler 1983:25) However, by 1970 72 percent of U.S.-born individuals could expect to survive until age 64. Most researchers attribute this increased longevity to dramatic decreases in infant mortality since 1900. As recently as 1935 (Denning and Cutler 1983:25) the U.S. had an infant mortality rate of 55.7 percent (deaths per 1000 live births of infants under one year of age). This rate declined to 19.8 percent in 1970 and 14.1 percent in 1977. More people are surviving to grow old and the decrease in infant deaths has statistically lengthened life expectancy. The conquest of infant mortality is generally a high priority in Third World countries and, as this is done, life expectancy and the numbers of older people in the population will increase. Death then becomes something which happens more typically in old age than in infancy.

Causes of death change too as nations modernize their medical systems. Early childhood diseases and other infectious diseases are now well controlled in industrial nations and will, in the near future, be controlled in most developing countries. This means that not only will death occur more commonly in the later years, but that it will be brought about by different causes. Influenza, pneumonia, and tuberculosis were the main causes of death in the American population in 1900. (Public Health Service 1974, in Denning and Cutler 1983). This altered dramatically by the year 1970 when diseases of the heart, cerebrovascular hemorrhage, and other vascular lesions had become the leading causes of death. Thus, the degenerative diseases -- heart disease, stroke, and cancer -- become more prevalent as more of the population survives to the age when such diseases are typically contracted.

As the most prevalent diseases change, allocation of medical resources must also change. Developing nations can look at changes we have experienced in population composition and health status of the population from the year 1900 to the present. They will be able to anticipate changes in health needs as their populations become more elderly. If planning can result in better solutions for problems, then the developing countries
surely have, in our experience, a blueprint for the kinds of changes which they may reasonably expect.

**The Economic Status Of The Old**

Consideration of the economic status of the old raises two related issues -- the extent to which the elderly participate in the labor market and the extent to which the dependency ratio of a nation represents large numbers of non-working (in the labor market) elderly.

Retirement from work is essentially an invention of the industrial nations and represents the desire for work-force related planning, at least at the level of the individual work unit -- be it a factory, business or bureaucratic institution. In developing nations people usually die before they stop all work but rationalization of production will mandate institution of retirement in Third World countries. Long ago Simmons (1945) showed that in all societies, no matter how plentifully supplied with survival needs, the presence of the old person who can do nothing to contribute to the life of the group becomes a problem for that group. Many researchers have pointed out (e.g., Teski 1983, Benet 1974) the social and personal need for the old person to contribute actively to the well-being of the society as long as it is possible to do so. Lack of functional roles for the healthy and minimally impaired elderly in the U.S. has led to the sense that in the retirement years one must "kill time". Some younger people feel, because of this, a sense of resentment that they are "paying for" the leisure of the old.

This leads to the question of dependency. The dependency ratio is the number of dependent people in the population divided by the number of working people who are supporting them. The two groups making up the dependent population are the young and the old. As the number of elderly in the population increases in comparison with the young population and proportions of old to young in the dependent population will also increase. In the United States the responsibility for aged dependents is now twice what it was in 1900. (Denning and Cutler 1983:133) It is expected to peak in the years from 2000 to 2020. Pensions which the presently-retired population receive are partially supported by their own contributions, made in their working years. However Social Security payments made to people who are now retired greatly exceed their
previously contributed shares. When the Social Security system was established in 1935, it was not expected that so many would live long past their 65th birthday.

Changes in dependency ratios and in the age composition of the dependent populations has political as well as social and economic implications. The extent to which older dependents are a political issue is as important for Third World countries to assess as it is for the United States. Numbers of older people in relation to numbers of children are important in planning for social needs. For example, in the next decades, there may be a need in the U.S. for fewer teachers and more geriatric social workers. The Third World countries should consider the future size and needs of their elderly population in order to avoid severe social problems.

Living Arrangements Of The Elderly

Knowing where the elderly are living is important, but it is also important to know the structural arrangements of their living -- whether they are married or single, living alone, with relatives, or with others. Knowledge of these facts allows for planning in terms of housing, retirement communities, senior centers, and transportation.

In the United States, for example, large numbers of older women live alone. This is an important statistic even though we must not equate living alone with either loneliness or social isolation. Since 1960 (Denning and Cutler 1983:43) there has been a decrease in the numbers of all elderly people living with family -- especially with relatives who are not their spouses.

The predictions of Hauser (1976) and others suggest that for at least the next decade or so Third World elderly will probably live with family. However, as we have already noted, economic change may entail increased mobility in the population. This would tend to move younger people away from their original homes, leaving older family members behind. Eventually this could result in a situation similar to ours in which many elderly people live alone. Such changes can certainly be dealt with more effectively if they are foreseen.
The demographic features which we have discussed in the previous sections are all of great importance to societies as they experience growth of the elderly sector of the population. Structural changes may well dictate much behavior but cultural factors are important as well. The cultures of the Third World are many and varied and will influence people's attitudes toward their aged citizens as well as toward the process of modernization. Our own experience shows that rich resources in a society do not assure older members of a rich and rewarding old age. We must realize that we have paid a heavy price for the rapid development of industry and the market economy. When all value is computed in the market place, retirement from the working life is problematic. The later years take on the taint of "unproductiveness". When being "unproductive" means being a consumer but not a producer, some social stigma attaches to the retired person.

Ironically, in the United States, as Fischer (1977) points out, the respect for the elderly declined just as the numbers of elderly began to rise. This period also coincides with the period of rapid industrialization of the United States. Cultural values may be seen as being dictated by economic and social situation, history, and the present culture of a group as there is a never-ending dialogue between all of these elements. What is emergent is an attitude formed by the interaction of all these factors. One factor may be more significant in one nation, where another weighs more heavily in another. Understanding of the most significant factors in any particular case must be based upon extensive knowledge of the culture in question.

There is no simple formula which we can use to predict a culture's attitude toward the aged. For example, an economically marginal society, like the hunter-gatherer Kung Bushman (Biesele 1976), values the aged for their story-telling skills. Since it is not thought appropriate for younger people to tell stories, the older people command a valuable resource in this skill. On the other hand, Sharp (1981) paints a grim picture of life for the older Chipewyan Indian man who must constantly prove his physical strength in order not to be considered "elderly" and thus useless. Even "magic" power must be proved by success in hunting, trapping, and gambling. When a man is old and less successful at these pursuits it is thought, among the Chipewa, that his "magic" is gone.
Agricultural societies, the traditional pre-modern cultures (which have more surplus food) may honor the elderly. Yet we know that there are exceptions to this rule and that the helpless elderly are almost always considered a burden. For example, in Taiwan, the traditional cultural value of respect for the elderly, particularly parents, which is significant in Chinese culture, still exists, but in a situation of tension. The tension is between the valuing of the elderly which Chinese culture mandates and the actual powerlessness of most of the old, as well as their ignorance of the economy in which their children and grandchildren participate. (Harrell 1981) The elderly literally have no knowledge which can help their children. Women who have probably been rather powerless all of their lives are generally happier in Taiwan than are the old men who have lost their power and influence.

In India (Harlan 1968, Hiebert 1981, see Vatuk Part II) factors such as caste, sex, and economic resources modify the way in which the traditional Hindu high valuation of the latter stages of life is expressed. Old age is, according to Hindu tradition, a time for high spiritual attainments. However, it seems that relatively few older people, and usually only those of high ranking castes, actually attain a high degree of spiritual advancement and command the respect which goes with it. The data indicate that a happy old age is best assured by having economic resources, not giving them up to younger family members, and being a male of higher caste status. All of these factors are operative as well as many others so that it is impossible to say truly -- that old age is generally a time of respect and spiritual attainment in India.

In any society, sudden expansion of the numbers of older people will cause certain stresses. These stresses will affect the society as a whole as new needs are felt and new demands must be met. Individuals will experience new problems as they deal with their own aging and that of family members. Developing nations will have the additional burden of absorbing these demographic changes at the same time they are experiencing the strains of the rapid social change which modernization entails. Inevitably they will look at the problems, solutions, and mistakes of the industrial nations as we attempt to come to terms with aging societies. They will see what we have done, and hopefully learn from our mistakes.
The cultures of East and South Asia are particularly interesting to consider since it is in these areas that the elderly "population explosion" is predicted to take place. With the exceptions of China, Japan and Thailand (which have other strong experiences of Western culture), all of the nations of these areas have experienced Western imperialism as colonies of European nations. This experience, as well as their own indigenous cultures, has shaped their societies and their consciousness. Their governments today are largely structured from Western models. Their leaders are western-educated and future oriented in a Western way.

Agriculture is the economic base of the cultures of East and South Asia and large numbers of peasants are still engaged in agriculture as their main subsistence activity. The old social structure was based upon distinction between a privileged aristocracy and the poor peasantry. In India this was complicated by the presence of multiple castes. One's position at birth largely determined the course of life, social status, even more than age determined the general respect which one could expect.

The coming of Western influence, by trade, direct, or indirect rule, usually did not upset the ancient social structure at once, but simply imposed another layer -- the European one -- upon the ruling class. Most European colonial powers preferred to leave native aristocrats in place, working through them to keep the people in order and to gain commercial advantages.

The result has been an eventual series of changes which have led to the present independent Third World countries which have a Western-educated elite making all of the decisions for a broad multitude of traditionally-oriented people who have relatively consider the future size and needs of their elderly population in order to avoid severe social problems.

Living Arrangements Of The Elderly

Knowing where the elderly are living is important, but it is also important to know the structural arrangements of their living -- whether they are married or single, living alone, with relatives, or with others. Knowledge of these facts allows for planning in terms of housing, retirement communities, senior centers, and transportation.
negative effects of the first two have to do with relocation, in both a physical and ideological sense. If more people seek trade and other opportunities in cities, the elderly may be left alone in rural areas. If the elderly come to town they probably will not find employment and will have to eke out a meager subsistence on their own, or to be dependent upon other relatives in the city. With restratification, Western education and technical knowledge will become at first equally and finally more important as determinants of status than the old structures. Some elderly may lose traditional status as well as being unable to gain Western education, the key to new high status.

Secularization and commercialization have to do with rationalization of life and changing of traditional values. As we noted for Taiwan, old values of respect for the elderly struggle with present situations in which the elderly are seen as not having a significant contribution to make. Religion usually has strong sanctions for family loyalty and caring for the old, but if religion plays an ever smaller part in daily life, these values will lose their force. The replacement by commercial values and a cost-benefit analysis results in a lower valuation of the elderly.

We may note that in East Asian and South Asian cultures respect for the old is of long-standing and probably deeper than it ever was in European and North American societies. Thus if regard for the elderly, using the elderly as a national resource, and programs for the elderly are part of the operation of the new states, there will be a widespread acceptance and adherence to the idea of doing something for the old in a modern way. The ideal of reverence for the old, even when not always supported in action, is still very appealing. If supported by powerful Western-educated elites such values could be much longer lived than in our Western cultures.

How The United States Deals With Its Elderly Population

There are two aspects to the United States' reaction to the knowledge that we have an increasingly elderly population. On one side is the development of an ever-expanding concern, and on the other side is our much less extensive action component. Let us consider the issue of concern first. Concern about the present and future of American elderly has generated three important results:
1. Popular awareness of the elderly and the aging process.

2. An increase in the amount of information on the physical, psychological, and social aspects of aging.

3. An expanding gerontology industry in teaching about aging, serving the aged, and manning the bureaucracy which deals with the aging and questions concerning the elderly.

The rapid development of concern about aging and the aged has not been accompanied by equally rapidly developing areas of action. In fact, it might honestly be said that concern has often taken the place of action. Studying various problems and recommending courses of action have often been the extent of the activity in certain areas. This has occurred for a number of reasons, the main one being that social concern implemented by social planning and federal action has not been the rule through most of American history. Even now, there is strong support for the political position that the government ought to do even less in the area of social planning and program implementation than in the past. Public policy concerning the elderly and programs for them have been scant compared, for example, with what we see in Scandinavian countries. The Social Security Act of 1935 followed by Medicare and Medicaid have been the only universally applied programs which have benefitted the over-65 population in the United States.

In recent years, the appearance of political response to the needs of the elderly has been important to those seeking office. Politicians must now say that they support measures favorable to the elderly, but few have moved to do anything innovative to benefit this group. The elderly are important as voters, but seem to respond as a group most often and most effectively only on the local level. (Voting down a school bond question, for example.) Binsstock (1974) and others have noted that there is no "elderly vote" on a national level. Socioeconomic class appears to be more important than age in determining an individual's vote. The U.S. elderly, because they do not speak with one voice, cannot be seen as a force for any social change. Yet, if their needs are to be met in the future, certain social changes must occur.
Scandinavian countries may be contrasted with the United States in regard to public policy for the elderly. These countries became industrial in the 20th, rather than the 19th century, but like the United States they have many citizens over 65. From early in the century there has been well-articulated public policy regarding the elderly in Scandinavia. Medical care is provided by the state for all citizens. Medical visits, dental, eye, and foot care, physiotherapy, hospitalization, and drugs are provided at no extra cost. There are also home health services which allow the elderly to remain at home, even when their health is impaired. These features are consonant with the socialist orientation of the Scandinavian governments and afford a contrast with the United States which Third World countries may consider. High taxation rates in Scandinavia allow for funding of programs which make old age easier for all citizens. In the United States the elderly are much more varied in their socioeconomic situations—both from person to person and from geographic area to geographic area. The Scandinavian countries have made old age similar for all citizens, but only because of general acceptance of central planning and government funded programs.

Special Problems Which The Third World Will Face As Populations Age

If the political participation of the elderly in the United States is fragmented, the political participation of the Third World elderly may be characterized as non-existent, or nearly so. In general, political participation in making decisions is more restricted in developing nations than in the industrial nations where education, communication, and the general use of voting make many people aware of the larger factors which influence their lives. Third World elderly may lack means of hearing about what is going on, and, more importantly, may lack the means of understanding the modern perspectives of their leaders. Younger people with Western educations are often the leaders in developing societies—having adopted for themselves a future perspective which may be nearly unintelligible to older people educated in traditional ways.

It is very difficult to compare developing countries with Western industrial nations. As Almond and Coleman (1960) have pointed out, the fact that almost all developing countries have Western-style governments means that there may be more than one political system which people consider legitimate. The traditional
political order may, at least conceptually, co-exist with a modern Western type state. They also stress (1960:10) that aspects of life and institutions which are non-political in our point of view (religion, family, etc.) are inextricably mixed with those institutions which are political. No state, according to them, is ever all-modern. Traditional elements make all cultures "mixed" in this respect. The developing countries simply have a larger traditional component.

Almond and Coleman (1960:22) quote Riggs who describes industrial political systems as having universalistic, achievement-oriented, functionally specific norms and structures in contrast to agricultural societies which have particularistic, ascriptive, functionally diffuse norms and structures. The world has a multitude of approximations to the Western industrial model.

Third World countries have established political institutions which are based upon western models because they see their futures in Western industrial terms. The elderly person, educated in the traditional culture, may well find such new institutions unfamiliar and uncongenial. When this occurs, the older generation cannot actually be a part of the political process. In most Third World countries, there is a dichotomy between Western educated "elite" and those who have little knowledge of how to behave in the context of Western-model institutions. The political base is restricted and the elderly, at least in the early days of development, may always be among the non-participants. If, in situations like this, any policy measures are undertaken which help the elderly it will be done because of the social concern of the decision makers rather than because of political pressure from the elderly themselves.

This leads to the "two cultures" problem characteristic of the earlier stages of development in Third World countries. An elite group -- Western-educated, usually middle aged or younger -- runs the country. This group has the power to implement social policy. On the other hand there is a group of people of all ages who have not become western or "modern" in lifestyle. This group includes most of the elderly and will be notably absent in the decision-making process. Some of the younger people of the group will have an opportunity, through education, to become participants, but the old probably never will. Political representation and participation is virtually impossible for large segments of the population including the old. Communication about political matters is difficult because...
of the division of Third World countries into two sectors -- the modern and the traditional.

Coleman (1960) notes some of the common features of all developing nations.

1) They are "mixed" -- showing both modern and traditional characteristics

2) There is a lack of integration -- they are pluralistic ethnically, racially, religiously, and culturally

3) There is a gap between the elite and the masses.

We have already noted these characteristics but it is perhaps useful to restate them here and to try to imagine their impact on increasingly elderly populations. Perhaps the gap between the elite and the masses has the most impact on all people. Abueva (1972) discusses the conscious efforts made to bridge the gap in the Philippines by President Ramon Magsaysay in the 1950s. Through symbolic acts, improving communication with rural areas, and a series of programs this president began to reduce the vast chasm between the elite and the ordinary people.

However, the author concludes that this early effort was not really successful. Because the peasants and laborers were not economically secure, or well organized, they could not provide the president with the leverage needed to force the traditional elite to enact reforms and promote a situation which would benefit all of the people.

Lessons From The Industrial Nations

The general lessons which the Third World can learn from the experience of the industrial world are cautionary:

1) That concern does not necessarily mean action and that excessive concern may in fact take the place of action.

2) That it is well to have policy measures for the elderly in place before the numbers of elderly become so large that the measures are almost from the beginning inadequate.
The Third World does not need to collect volumes of information about aging and the aged. We have already done this and they can benefit from our research. The decision makers need continuous up-to-date demographic information so that they will know the numbers of elderly citizens which they will be dealing with in any given year. With our research knowledge and with such accurate demographic information it will be possible for developing countries to be prepared for the needs of the elderly before those needs become so serious that it is too costly to contemplate doing anything.

Decision-making in Third World countries is already done by a minority of the population. This minority, in most cases, is not as adverse to central planning, and extensive government programs as is the average United States citizen. If, as Easton asserts (Almond and Coleman 1960:6), the political system is the allocator of values, it is the governing elites who will determine the fate of their elderly citizens. He also maintains that the allocations made by political systems are 1) authoritative and 2) binding on the society as a whole. We have already commented upon the strong value of respect for the elderly in East and South Asia. If this traditional value were supported in policy, a far different situation could, for example, develop in Asia than that which has developed in Europe and North America. Regard and concern for the elderly would be the responsibility of the governing elites. Policies could be implemented based upon knowledge of present demographic trends and desire to regard the needs of the elderly based in the past culture. With the knowledge of our history, Third World countries may end by initiating solutions to problems which will be instructional for the industrial world.
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The issue of the number and extent of age-groupings within American society became an important concern for social gerontologists during the late 1970s. Neugarten's work (1974, 1975, 1979, Neugarten and Hagestad 1976) showed clearly that there were at least two types of aged individuals within American society: the young-old, those individuals aged 55-74, and the old-old, those individuals 75 and older. The young-old are characterized as being in relatively good health, having important family ties and interactions, and being relatively affluent and politically active. The old-old are characterized as being in poor health, being incapacitated in some way, being dependent for support on either their family or the government, and as experiencing a decline in their feelings of self-worth and dignity. The old-old also, at present, absorb the majority of the health-care resources directed towards the elderly. In the future, even a greater percentage of these health-care resources will be absorbed by the old-old, since this group will experience the fastest rate of increase in numbers of any age group over the next twenty years in most industrial and Third World countries.

The recognition of these groupings and their characteristics within American society raises the dual questions: do such groupings exist in the Third
World, and if they do, why is their recognition important to the understanding of the behavior of people in the Third World? These two questions are explored in this paper as I try to show that (1) a differentiation of the "old age category" is found in Third World Societies, (2) the distinction is based on actual or perceived changes in the health of the aged, (3) the distinction is the main reason for the existence of death-hastening behavior directed toward the elderly in Third World societies, and (4) the distinction is important in understanding the care and treatment of the elderly, especially when an attempt is made to change people's behavior.

Anthropological Evidence

The existence of a significant subdivision within the old age category is intuitively apparent to most people in both industrial and Third World societies and has been recognized in the anthropological literature for over 50 years. The problem is that the groupings either were taken as a given and therefore not studied in detail or were studied only on an individual societal basis, and as a result, the analyses have only a weak comparative framework. In particular, little if any attention has been paid to the criteria utilized for the placing of individuals in one grouping or the other, and to the variation that may exist in the behavior directed toward individuals in the different groupings. This lack of attention has led to the impression, found within both the anthropological and gerontological literature, that old age in Third World societies was and is a small and homogeneous category.

There were those anthropologists, though, who described old age quite differently. W.H.R. Rivers in the 1920s and Leo Simmons in the 1940s both recognized that multiple groupings existed among the aged in non-industrial societies. Rivers in his analysis of Melanesian society argued that there existed a stage of life in many "primitive" cultures that was someplace between living and dead. He argued that this was a "transitional stage" which was much more complicated than the Western industrial conception of life and death. "It is true that the word mate is used for a dead man, but it is also used for a person who is seriously ill and likely to die, and also often for a person who is healthy but so old that from the native point of view, if he is not dead he ought to be" (Rivers 1926:40).
In the 1940s Leo Simmons conducted a systematic cross-cultural study of aging in 71 "primitive" societies. Simmons' emphasis was on the relationships among various aspects of the status and treatment of the aged and certain ecological, economic, political and social dimensions of the societies. Simmons' work provided many ideas and suggestions for further research on aging by anthropologists, among which were a series of statements concerning the differentiation of the aged into at least two groupings (Simmons 1945:62; 1960:87-88).

Among all people a point is reached in aging at which any further usefulness appears to be over, and the incumbent is regarded as a living liability. 'Senility' may be a suitable label for this. Other terms among primitive people are the 'overaged', the 'useless stage', the 'sleeping period', the 'age grade of the dying' and the 'already dead' (Simmons 1960:87).

Simmons argued that this final stage of life is found in all "primitive" societies and that it is clearly distinguished from "normal" old age. In other words, it is a distinct category recognizable to both the members of a particular society and by outside observers. Unfortunately, neither Simmons nor his contemporaries pursued an analysis of the characteristics of these groupings and except for general references to such a distinction, little else appeared for another twenty years within the anthropological literature.

Beginning in the 1960s, several studies appeared which, although not concerned directly with the analysis of these groupings, did describe their existence. (Stenning 1965 for the Wodabe Fulani, Guemple 1969, 1983, for the Eskimo, Plath 1972 for Japan, Vatuk 1978 for India, Biesele and Howell 1981 for the Kung Bushmen, Eastwell 1982 for the Australian Aborigines). Two of these studies from widely separated areas of the world illustrate well the main characteristics of these groupings in non-industrial societies.

D. Lee Guemple analyzed the changes in treatment accorded aging Eskimos as they begin to become increasingly dependent on the members of their social network. Eskimo are defined as old when they are no longer able to do the work that is associated with fully active adults. This change in work role usually takes place for males at about the age of 50, and for females
at about the age of 60. This sexual difference in the age at which a person is defined as old is based on the type of work undertaken by each of the sexes; "women's allocated tasks are both more varied and less strenuous with the result that advancing age does not limit their effectiveness nearly as much as it does men's" (Guemple 1983:35). Old male and female Eskimo are equally supported and cared for by their families and other community members and are accorded respect and prestige. This support, along with the concomitant respect, lessens rapidly once the elderly individual's children leave the household or when the elderly individual has become incapacitated to such a degree that he or she is a burden to him or herself and the community.

They (the aged) suffer a marked reduction in both respect and affection when they are no longer able to make a useful contribution. As they grow older and are increasingly immobilized by age, disease, and the like, they are transformed into neglected dependents without influence and without consideration. In short, old age has become a crisis (Guemple 1969:65).

Once they have reached this final decrepit period, the aged are denied food, (in particular important trade goods) are isolated from family members, are hazed by the younger members of the social group, and are, in general, mistreated. The aged attempt in various ways to delay being defined as decrepit, but finally "at the point when the elderly become a drain on the resources of the community, the practical bent of the Eskimo asserts itself forcefully. To alleviate the burden of infirmity, the old people are done away with" (Guemple 1969:69, emphasis added). Although these patterns vary from one Eskimo group to another the evidence is convincing that many Eskimo groups differentiate between two types of the elderly.

Harry D. Eastwell (1982:5-28) analyzed the sequences associated with the process of dying for 17 individuals in East Arnhem, Australia. In 12 of the 17 cases, the individuals were denied fluids by their relatives and friends and as a result had their deaths hastened. In each of these cases, the individual had become a burden to the social group because of extreme age, a physical ailment, or a continual violation of social norms; as such, each had been defined as decrepit and was no longer considered fully intact and of value to the social group. Eastwell's reference to the
"dispatch of the dying" and "desirable euthanasia" is just another way of saying, as Guemple did, that "the old people are done away with." In both cases there is a redefinition of individuals as decrepit (see Glascock, 1983 for a further discussion of this example).

Guemple's analysis of the Eskimo and Eastwell's analysis of the Aborigines illustrate at a specific societal level both the existence in Third World societies of groupings within the old-age category and a corresponding change in treatment patterns. As illustrative as these studies are, though, they still lack a direct focus on the characteristics of what I term the intact/decrepit distinction, the criteria utilized to allow the shift to occur and the range of treatments that may exist. They also lack a comparison of these subjects in one Third World society with similar processes in other Third World societies. Therefore, key elements of the questions raised at the beginning of this paper can only be answered by a broader, more systematic analysis of this distinction.

The Hologeistic Study

The vehicle that I have selected for this broader and more systematic analysis of the intact/decrepit distinction is hologeistic analysis. Hologeistic analysis "is a research design for statistically measuring the relationship between two or more theoretically defined and operationalized variables in a world sample of human societies" (Rohner et al., 1978:128). The method relies on the analysis of previously collected ethnographic data and in the majority of cases, utilizes the Human Relations Area Files.

A standard hologeistic methodology was employed in the development and testing of the hypotheses concerning the treatment of old people. Five categories from the Human Relations Area Files provided the data base from which the codes were constructed. Eighteen codes were developed concerning old individuals and since separate entries were made for males and females, the final coding procedure contained 36 distinct elements. Raoul Naroll's HRAF Probability Sample Files (PSP) was selected as the sample of societies (Naroll, Michik and Naroll 1976). The Naroll sample is comprised of 60 non-industrial societies; all but two (Irish, Greek) can easily be considered part of the Third World.
Findings

The first question to be answered through the hologeistic findings is: is a differentiation of the "old age category" found ones in societies other than industrial? The answer to this question is yes. In thirty-three percent (19) of the societies in the PSF a distinction was made between different groups of elderly individuals. In three of these societies the distinction was based purely on chronology (Annamese, Korea and the Bush Negroes). The data for Korea serves as a good example for this type of chronological differentiation. In Korean society "after forty, (people) are old... (and) everyone knows that to reach the age of 60 is one of the greatest possible events in an individual life. To do so puts one almost in the category of the immortals" (Osgood: 42-43). In the other sixteen societies the distinction was made based on the definition of some elderly as intact and some as decrepit (Aranda, Aymara, Cagaba, Chukchee, Copper Eskimo, Dogon, Hopi, Kanuri, Klamath, Lapps, Serbia, Tiv, Truk, Twi, Wolof, and Yanomamo). Intact refers to individuals who are recognized as old within their cultural context but who are still capable of useful behavior, as defined by members of each society. Decrepit refers to individuals who are incapacitated by age, illness or a combination of these to a degree that they are living liabilities.

Only societies in which a clear distinction was made by the society members themselves were coded as having the intact/decrepit distinction present. Instances in which the ethnographer made such a distinction but gave no evidence that this distinction was made by society members were not included. Some distinct societal marker, linguistic, behavioral or ritual, had to be present in order for a society to be coded as making a division based on the intact/decrepit distinction. Two brief examples illustrate this type of data. Among the Kanuri of northern Nigeria, old age is "signalled in both sexes by the whitening of body hair even though other body characteristics may remain strong and healthy" (Cohen 1967:70). A second stage of old age occurs though, when "at extreme age, with the progressive appearance of infirmity, he (the old person) relinquishes many of his duties" (Cohen 1960:179). An example of a linguistic marker is found among the Aymara of Highland Bolivia where one set of terms are present for an old man and an old woman and a second set of terms are present for the extremely old which translate as, "old man who chews saliva and the Owl-earred" (LaBarre:128). This use of such
strong criteria no doubt reduced the number of societies coded as having multiple groupings. Nevertheless, the distinction is present in a relatively large number of the societies in the PSF and these societies range from hunting and gathering societies, (Aranda, Copper Eskimo) through pastoral (Lapps) and horticultural, (Yanomamo, Truk) to agricultural (Serbia).

Three additional sources of evidence support the conclusion that a differentiation within the old age category is present in a wide range of societies. First, no clear statements were presented denying the existence of the distinction within the old age category for the 38 societies coded as lacking such distinctions. Instead, there was just no mention by the ethnographer that the society members made such a distinction. One must keep in mind when evaluating this "negative" evidence the neglect that anthropologists, until quite recently, have shown the aged in non-industrial societies. Second, recent research anthropologists who are interested in the issues of aging are finding a distinction where one was previously thought not to exist. A brief example illustrates this point. The !Kung Bushmen were part of a pretest sample of societies that was used in the development of the codes. After the analysis of all available data on the !Kung, the conclusion of the coders was that the !Kung made no distinction within the old age category. Since this coding, a recent analysis of the !Kung by Megan Bieseke and Nancy Howell (1981) indicated the existence of at least two categories of old individuals: the old and the "nearly dead." Third, in the pretest of the coders, six societies were coded as having a distinction between the intact and decrepit aged (Bali, Eastern Apache, Inca, Manchuria, Miao and South China). Although these six societies represent only 20 percent of the total pretest sample, when added to the sixteen societies from the PSF, and the anecdotal evidence from the anthropological gerontologists, they provide convincing evidence that a distinction within the old age category is found in a wide range of societies in addition to industrial ones.

The second question to be answered is: what are the criteria utilised that precipitate the change in the definition of an elderly individual from intact to decrepit? The answer to this question is extremely complex as there are inter- and intra-societal variations found within the data but, in general, the intact/decrepit distinction is based on actual or perceived changes in the health of the aged individuals. The evidence
indicates that individuals are regarded as decrepit when they have become burdens to the social group.

In each of the twenty-two societies (16 PSF and 6 Pretest) in which the intact/decrepit distinction is found, a clear change in the actual or perceived health of the individual defined as decrepit has occurred. Four brief examples should suffice to illustrate this change in health status.

Among the Yanomamo of South America, old people are respected and cared for even when they are no longer capable of contributing to their own support (Barker 1953:489) but

If members of the tribe are very old or so seriously ill that in spite of all efforts to cure them, they are no longer able to take part in the joint migrations, they are killed, (or)...the very weak old people are walled up alive in a cave (Becker 1960:153-154).

Likewise among the Trukese the old people are respected even though they are "realistically dependent upon their relatives ... (and) become highly submissive, conventional and inoffensive" (Gladding 1953:289). Once an old person became "sickly" he "had to lie down in the center of the home. Then a stone was pushed diagonally from one corner to the other, and to be sure over the one lying there" (Bollig 1927:31).

The Cagaba in South America also differentiated among the healthy, intact elderly and the sick, decrepit elderly. "To grow old is pleasant for the Kogi (Cagaba) - knowledge and status increase - children and young people respect him and ask his advice" (Reichel-Dolmatoff 1951:285). Respect may increase but once serious illness sets in treatment behavior changes; "Burying sick old people alive is not regarded as a crime" (Bolinder 1925:114). Finally, among the Lapps in Northern Norway the distinction is stated the most succinctly. "The Konkama Lapps have little respect for old people if combined with physical and/or mental weakness. But youths do not joke with or show disrespect for seniors who are still physically and mentally vigorous" (Pehrson 1957:134). This lack of respect, though, is not the only change that occurs when an elderly Lapp becomes ill or sick. "Decrepit Lapps were often killed by their young relatives with their consent" (Collinder 1949:134).
The common denominator in each of these examples is a change in actual or perceived health. The emphasis placed on perceived health is deliberate as the aged individuals who are defined as decrepit may in some societies show no change in physical appearance or physical or mental capabilities during the transition from intact to decrepit. Instead of changes in the aged individuals, there may be changes in the physical and/or social surroundings which bring about a change in the health-status of the aged. The situation in which the aged find themselves changes, e.g., drought occurs, the social group moves, the food supply changes, new groups move into the area. These changes may precipitate the transition of the aged individuals from useful society members to burdens. Consequently, the category of decrepit old and the associated non-supportive treatments may not be present at all times but may only occur for short periods of time at widely scattered intervals. This makes the actual observation of the distinction a matter of careful research which does not rely on the attitudes expressed concerning the elderly, but instead on the actual behavior directed towards both the intact and the decrepit elderly.

This change in the actual or perceived health of the elderly individuals is related directly to the way illness is viewed in these societies. This is not the appropriate place for a lengthy discussion of illness in cross-cultural perspective as this subject has been covered by others (Murdock, Wilson and Frederick 1978; Murdock 1980) but one important point must be made. Illness is viewed in the majority of Third World societies as a temporary phenomenon. This view is similar to that found in industrial societies and places the ill individual in a special role. This role allows the ill individual to behave differently than normal and to be cared for by other members of the social group. The expectations of all involved is that the ill role is of short duration and the ill individual will get well. It is when this expectation is invalidated that attitudes and behavior change.

An ill individual who has no chance of getting well in most cases becomes a burden and is defined as decrepit and/or socially dead (see Glascock and Braden 1981 for a further discussion of the relationship between these concepts). Once this change in definition occurs, the behavior directed towards the individual changes, most often from one of care and support to neglect or outright death-hastening behavior. This is particularly true if the ill individual is elderly since the majority of old people are, at least, partially
supported by members of the social group. As the previous examples show, this support is maintained so long as some contribution to the well-being of the social group is made by the old person. Once illness occurs, the contributions of the elderly are lessened to a degree that they become increasingly viewed as burdens. This is apparently the case even if the illness has all the signs of being of short duration. The rapidity with which the elderly can be redefined as decrepit explains the often elaborate attempt on the part of the elderly in non-industrial societies to project useful, youthful and vigorous images. Guemple’s analysis of the attempts by older Eskimo males to remain useful illustrates this process well and further evidence of this behavior is found in the holoegistic analysis, as in all but two of the twenty-two societies in which the intact/decrepit distinction is present, the elderly make an overt attempt to contribute in some way to the social group.

This transformation of elderly individuals from healthy/intact to ill/decrepit is the main reason for the existence of death-hastening behavior directed towards the elderly in Third World societies. The subject of the treatment of the aged in non-industrial societies is complicated but extremely important for an understanding of the consequences of the movement of the aged from intact to decrepit. (See Cowgill 1972; Myerhoff and Simic 1977; Silverman and Maxwell 1978; and Glascock and Feinman 1981, for a discussion of the issues of the treatment of the aged in non-industrial societies.) Considerable attention was focused on the treatment of the aged in the holoegistic analysis and the findings indicate a strong relationship between the intact/decrepit distinction and death-hastening behavior.

Nine treatment codes emerged from the analysis of the holoegistic data: 1) supportive treatment, 2) non-specific non-supportive treatment, 3) insults directed at the old, 4) old people regarded as witches, 5) loss of property, 6) old people living apart from the main social group, 7) old people forsaken, 8) abandonment of old people, and 9) old people killed. This nine code scale was converted from a nominal to an ordinal one and further reduced to form three major groupings: 1) supportive treatment, 2) non-death hastening treatment comprised of own dwellings, non-specific, insulting, loss of property and regarded as witches, and defined as non-supportive treatment that does not lead directly to death, and 3) death-hastening treatment comprised of forsaken, abandonment and killed.
and defined as non-supportive treatment that leads directly to death of the aged individual.

The distribution of the treatment data shown in Table 1 for the 9 treatment codes is somewhat surprising. Supportive treatment is the most frequent single category, occurring 35% of the time. However, it occurs alone in only 16% of the societies in which treatment could be coded and therefore astoundingly, 84% of the societies with data concerning the treatment of the aged had some form of non-supportive treatment. Killing of the aged was the second most prevalent treatment, occurring 19% of the time but occurred alone in only five instances (4%). Forsaking and abandoning the elderly occurred 12% each, and again were found alone rarely (3% for abandoning and 1% for forsaking).

When the treatment data is grouped into the classifications of supportive, non-death hastening and death-hastening as shown in Table 2, supportive treatment of the elderly is still the most frequent treatment. The overall result, though, is that nonsupportive treatment of the aged is a more frequent occurrence than supportive behavior (58% versus 42%). This contradicts the commonly held belief that old people in most societies are primarily given supportive treatment and that the prolongation of life is always sought. This skewing towards non-supportive behavior is found even though in each and every one of the societies in which non-supportive behavior is found, there is an attitude of respect towards the aged.

These findings -- non-supportive treatment of the aged and in particular death-hastening behavior, is the predominant treatment pattern in Third World societies -- are directly related to the movement of elderly individuals from the intact to decrepit categories. Of the twenty-two (16 PS Fana 6 Pretest) societies in which the intact/decrepit distinction is found, only two do not have some form of death-hastening behavior present. The most common pattern in these societies is for death-hastening behavior to be present with supportive behavior. The pattern is consistent with that found in previous work by anthropologists: old people are supported until they become burdens at which time they are defined as decrepit and/or socially dead and forsaken, abandoned or killed. The changes in actual or perceived health therefore, lead directly to a change in treatment behavior. While defined as intact, the elderly are seen as making some significant contribution to the social group's
well-being and are supported. Once illness, actual or perceived occurs, the definition changes and at some point, the time comes when the best thing for all concerned is to hasten the death of the decrepit individual.

The presence of the intact/decrepit distinction and death-hastening behavior in approximately 1/3 of the PSF societies raises the question, do these societies have features in common that would distinguish them from the other societies in the sample? This question is not easy to answer given the quality of the data available but some preliminary conclusions can be drawn and some speculations made. Ten selected variables from the Ethnographic Atlas were correlated with the presence or absence of the intact/decrepit distinction and death-hastening behavior. The chi-square statistic was used to test for significance and the following patterns emerged. The intact/decrepit distinction and death-hastening behavior tend to be present in societies which; (1) are in harsh climates, in particular desert and tundra areas; (2) have no or only shifting horticulture; and (3) lack systems of stratification. Supportive treatment tends to be present in societies which; (1) are in forest or temperate climates; (2) have intensive or advanced agriculture; (3) have systems of stratification; (4) possess political centralization; and (5) have a belief in active high gods. In other words, given the data available, death-hastening behavior and the intact/decrepit distinction are found in societies in which the cultural development can best be described as simple; hunting and gathering societies, pastoral societies and shifting horticultural societies. Societies with exclusively supportive treatment of the aged are more economically complex societies and tend primarily to be sedentary agriculturists.

These patterns can be compared to the results of a recent study of gerontocide, the killing or abandoning of the elderly, by Robert J. Maxwell and Philip Silverman (see their article in this volume). Maxwell and Silverman (1981:6) found that in 20 of the 75 (26%) societies in their sample gerontocide was present. This percentage is lower than the percentage of societies in which death-hastening is present (36%), but this difference appears to be the result of the parameters of the two concepts rather than some significant difference in the findings. Death-hastening is a broader concept than gerontocide as it includes examples of forsaking of the elderly, the denial of food, water or medical care, and suicide of the elderly, in addition to overt
killing and abandonment. As a result, one would expect death-hastening to be present in more societies than the more restricted gerontocide.

Maxwell and Silverman in their study were interested in the possibility of the association of gerontocide and particular societal characteristics and they found a pattern similar to that found for the presence of death-hastening and the intact/decrepit distinction. Gerontocide is present in societies which lack permanent settlements, cultivation and social rigidity (1981:10), in other words, societies that rely primarily on collecting, hunting, herding and/or fishing for their subsistence. Although Maxwell and Silverman found no direct relationship between climate and environmental characteristics, the general patterns between their work and the present analysis are consistent.

If there is a relationship between a society's subsistence activity and the presence of gerontocide and death-hastening, which there appears to be from the evidence presented in these two studies, why does such a relationship exist? The answer to this question requires a certain amount of speculation, but an answer does emerge. The societies in which the intact/decrepit distinction and death-hastening behavior are present are societies which appear to be subjected to periods of deprivation. That is, these societies, hunting and gathering, pastoral and shifting horticultural, are subject to periods of food shortages, and/or hunger periods which require either the movement of the group to a different territory or the reduction of the overall population. Either of these activities places a premium on the individuals within the social group being healthy, and intact. Therefore, the perceived health of elderly individuals becomes a key factor in the determination of whether an individual can be transported from one location to another or be given food that is in short supply. In societies at this stage of development the decrepit elderly may be seen as too much of a burden to be supported during periods of deprivation and consequently may be killed, abandoned or forsaken. If an ill individual is perceived as curable, he or she may be transported and fed. However, an ill elderly individual, it appears, is seldom viewed as curable and therefore is given little time to recover before being defined as decrepit. Thus, illness for an old person in many Third World societies is the first step in an inexorable journey, from intact to ill to decrepit to death-hastening. Females in these societies, as the Eskimo example illustrates, may
start at a later age than males but all will make the journey.

These conclusions concerning the treatment of the elderly in certain Third World societies raise the final issue to be considered in this paper -- to what extent is the intact/decrepit distinction and death-hastening behavior important for understanding the care and treatment of the elderly in these societies? The two concepts are extremely important in understanding the behavior directed towards the elderly as a brief example will illustrate. Eastwell, in his study of Aborigine behavior, found that both elderly individuals and their relatives refused medical help in certain situations. Even when confined to hospitals, these elderly individuals refused medical care and life sustaining fluids. The reason for this refusal appears to be based on a self-definition of decrepitude. These elderly individuals had defined themselves as and were defined by others as decrepit and as such were socially dead. Their goal therefore became one of hastening their own death; a goal that the other members of the social group not only accepted but actively tried to achieve.

Examples of this type of behavior can be found in the recent ethnographic literature and its presence raises important issues for both the researcher in these societies and individuals who want to introduce Western medical practices in Third World societies. People who believe that the decrepit elderly should be eliminated may not respond favorably to an attempt to prolong the lives of the decrepit. On the contrary, they may see such an attempt as an example of the irrationality of Western medicine. Why save a person who has been defined as decrepit and is therefore socially dead? It one is to attempt to save someone's life, it should be someone who is still "alive". This is the case even though Western medicine may define the decrepit individual as curable. Eastwell presents evidence that the majority of the individuals who had their deaths hastened were curable through the application of Western medical practices. This was not the issue to the Aborigines. The issue to them was whether these individuals could return to a condition suitable to a hunting and gathering existence. The answer to this question was no for both the medical personnel and the Aborigines and therefore they were decrepit.
Conclusions

The answers to the two questions posed at the beginning of the paper should now be clear. Groupings within the old age category exist in Third World societies. There is, in a wide range of Third World societies, a distinction made between intact and decrepit elderly. The distinction is based primarily on the perceived health of the elderly individual as the intact elderly are still able to contribute to the well-being of the social group while the decrepit elderly, because of changes in their perceived health, are viewed as burdens. The intact/decrepit distinction is associated with a difference in treatment patterns directed towards the elderly. The elderly are supported by the social group as long as they are intact but once an old person is defined as decrepit, the behavior will often change to that which can be best described as death-hastening. The decrepit elderly in many societies will have their deaths hastened by killing, abandonment or forsaking and the process is one that is often outside the realm of Western medicine. The goal of the decrepit old person is not one of living but instead of not being considered a burden, and consequently, just being kept alive is not sufficient to prevent cultural patterns of death-hastening from being practiced.

Of what significance are these findings to the social scientist conducting research in a Third World society? The significance is really twofold. First, the researcher must be aware of the possible existence of multiple groupings within the old age category in Third World societies. In particular, the researcher must not assume that all old people are treated the same. Empirical evidence must be collected on the definition and treatment of old age and possible variation in the scope of treatment recognized and recorded. Industrial definitions of old age and treatment must not be assumed to apply to other societies. In addition, a recognition of the reasons for treatment behaviors that may appear harsh by our standards must be achieved by the researcher. In many Third World societies the values associated with growing old are just different from our own and will be variable depending upon the particular individual involved. Finally, the researcher must be able to communicate his or her findings to people who are concerned with the well-being of the elderly in Third World societies. Medical and service personnel must be made aware of the heterogeneous nature of old age in these societies and the variation in behaviors that may exist. Without this information a conflict of values will inevitably occur with the
result being misunderstanding, frustration and a possible rejection of the Western medical practices, not just for the elderly, but for a substantial percentage of the social group.
### TABLE 1

Distribution of treatment codes for the PSF sample
(Percentages—absolute numbers in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Multiple</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive</td>
<td>56 (23)</td>
<td>26 (26)</td>
<td>35 (49)</td>
</tr>
<tr>
<td>Own Dwellings</td>
<td>0 (00)</td>
<td>3 (03)</td>
<td>2 (03)</td>
</tr>
<tr>
<td>Non-Specific</td>
<td>2 (01)</td>
<td>0 (00)</td>
<td>1 (01)</td>
</tr>
<tr>
<td>Insulting</td>
<td>2 (01)</td>
<td>2 (02)</td>
<td>2 (03)</td>
</tr>
<tr>
<td>Property</td>
<td>5 (02)</td>
<td>8 (08)</td>
<td>7 (10)</td>
</tr>
<tr>
<td>Witches</td>
<td>7 (03)</td>
<td>12 (12)</td>
<td>11 (15)</td>
</tr>
<tr>
<td>Forsaken</td>
<td>5 (02)</td>
<td>15 (15)</td>
<td>12 (17)</td>
</tr>
<tr>
<td>Abandoned</td>
<td>11 (04)</td>
<td>12 (12)</td>
<td>12 (16)</td>
</tr>
<tr>
<td>Killed</td>
<td>12 (05)</td>
<td>21 (21)</td>
<td>19 (26)</td>
</tr>
<tr>
<td>Total</td>
<td>101 (41)</td>
<td>99 (99)</td>
<td>101 (140)</td>
</tr>
</tbody>
</table>

### TABLE 2

Distribution of combined treatment classifications for the PSF sample
(Percentages—absolute numbers in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Multiple</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive</td>
<td>55 (23)</td>
<td>35 (26)</td>
<td>42 (49)</td>
</tr>
<tr>
<td>Non-Death</td>
<td>16 (07)</td>
<td>25 (19)</td>
<td>22 (26)</td>
</tr>
<tr>
<td>Hastening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death Hastening</td>
<td>29 (12)</td>
<td>40 (30)</td>
<td>36 (42)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (42)</td>
<td>100 (75)</td>
<td>100 (117)</td>
</tr>
</tbody>
</table>
The same methodology was employed in the coding of the pretest data which was completed from a randomly selected sample of 36 societies and the PSF data. Two sophisticated and one naive coder (different naive coders were used for the Pretest and PSF coding) independently coded the data. The intra-rater reliability for each of the sophisticated coders was .94 and .96. The inter-rater reliability for the pre-test data was .85; for the Probability Sample File data .90.

The strengths and weaknesses of hologeistic analysis are often misunderstood and as a result the approach has been little used in the analysis of aged individuals. The strength of hologeistic analysis rests in its interdependence with ethnographic and cross-cultural approaches. These three approaches are related to each other in a cyclical manner. Ethnographic monographs yield data which can be used in the construction of hologeistic hypotheses. Hologeistic analyses, in turn, yield new, untested propositions which can then be tested by ethnographic fieldwork and in cross-cultural studies of a limited number of societies. Through these methods of testing, a hypothesis can be refined and the cycle begun anew.

Weaknesses of the hologeistic approach are twofold. First, the approach does not lend itself to the analysis of intra-cultural variation. That is, the nature of the approach does not allow for the detailed analysis of variations in behavior in a single society. Although the careful application of the hologeistic approach allows for the elucidating of some behavioral variation within a single society, its strength lies in comparison among a large sample of societies and the development and testing of broad generalizations. A second weakness of the hologeistic approach is not inherent in the approach itself but is found instead in the use made of its conclusions. The generalizations of propositions that result from hologeistic analysis are not proven laws. Instead, the conclusions are statements of relationships that must be tested through additional research in specific social settings. The acceptance of the conclusions of hologeistic analysis as definitive and law-like gives the approach a role that is both unwarranted and unwanted. Hologeistic analysis, when properly used is not the endpoint but actually only one part of the research cycle.
Footnote 2

**Legend: Probability Sample Files**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amhara</td>
<td>20.</td>
</tr>
<tr>
<td>2.</td>
<td>Andamans</td>
<td>21.</td>
</tr>
<tr>
<td>3.</td>
<td>Annamese</td>
<td>22.</td>
</tr>
<tr>
<td>4.</td>
<td>Aranda</td>
<td>23.</td>
</tr>
<tr>
<td>5.</td>
<td>Aymara</td>
<td>24.</td>
</tr>
<tr>
<td>6.</td>
<td>Azande</td>
<td>25.</td>
</tr>
<tr>
<td>8.</td>
<td>Blackfoot</td>
<td>27.</td>
</tr>
<tr>
<td>11.</td>
<td>Cagaba</td>
<td>30.</td>
</tr>
<tr>
<td>12.</td>
<td>Chukchee</td>
<td>31.</td>
</tr>
<tr>
<td>13.</td>
<td>Copper Eskimos</td>
<td>32.</td>
</tr>
<tr>
<td>14.</td>
<td>Cuna</td>
<td>33.</td>
</tr>
<tr>
<td>15.</td>
<td>Dogon</td>
<td>34.</td>
</tr>
<tr>
<td>16.</td>
<td>Ganda</td>
<td>35.</td>
</tr>
<tr>
<td>17.</td>
<td>Garo</td>
<td>36.</td>
</tr>
<tr>
<td>18.</td>
<td>Greeks</td>
<td>37.</td>
</tr>
<tr>
<td>19.</td>
<td>Hausa</td>
<td>38.</td>
</tr>
</tbody>
</table>

Naroll's Probability Sample Files consists of 60 societies. Nine of these societies could not be used because either they had no Ethnographic Atlas entry or had no information within the HRAF categories searched. Possible substitute societies were suggested by Dr. Naroll and were used in six of the cases (Greeks for Bahia Brazilians, Malays for Central Thai, Tupinamba for Guarani, Irish for Highland Scots, Annamese for...
Taiwan Hokkien, Mundurucu for Tucano). There were no substitutes available for the Khasi, Tlingit and Trobriands and their elimination reduced the PSF to 57 societies.

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THE MOTIVE FOR GERONTOCIDE

ROBERT J. MAXWELL, PHILIP SILVERMAN, AND ELEANOR K. MAXWELL

Killing and Abandoning the Aged

Jacob Baegert describes some of the ways in which the infirm elderly were treated by the "Mission Indians" of California a century ago:

It is to be feared that some of those who are seized with illness far from the mission, and not carried thither are buried alive, especially old people, and such as have few relations, for they are in the habit of digging the grave two or three days before the patient breathes his last. It seems tedious to them to spend much time near an old, dying person that was long ago a burden to them and looked upon with indifference. . . . On their way to the mission, some natives broke the neck of a blind, sick, old woman in order to be spared the trouble of carrying her a few miles further. Another patient, being much annoyed by gnats, which no one felt inclined to keep off from him, was covered up in such a manner that he died of suffocation (quoted in Coon, 1948, pp. 76-77).
Gerontocide is defined as the killing or abandonment of old people, or their exposure to the elements, and is normally regarded by most people as a despicable act. There is, however, a puzzle involved here, for no matter how terrible the practice seems it is not at all rare.

The purpose of this report is to illuminate in two sets of forces, one sociocultural and the other psychological, which seem to lead people to systematically murder their elders. The context of this investigation is a large-scale, cross-cultural study of the determinants of status in old age, and this will now be briefly described.

The Holocultural Study: Motivational Factors

The authors selected for study a sample of 95 societies drawn from Murdock and White's Standard Cross-Cultural Sample (1969). A lengthy codebook was constructed, using a pre-coded format, and pre-tested on a sample of 10 societies. Research assistants, who were for the most part graduate students in history or anthropology, were thoroughly trained in the use of the instrument but were kept ignorant of the hypotheses we were testing. They read all of the available original ethnographies for the sample, in the original languages when necessary. Our coders could read Spanish, German, French, and Flemish in addition to English. This is not the place to deal at any length with methodological details but it is worth mentioning that, as a check on reliability, 20 of the societies in our sample were completed independently by two coders, and an additional four were completed by three coders. In comparing the results for our major variables, 47 of the 62 Pearson rs generated were statistically significant. Many of those correlations that did not reach significance were based on categories involving four or fewer cases so that the computer program did not even generate a statistic. These variables were less important ones in that they were so infrequently encountered (see Silverman and E. K. Maxwell, 1982).

A rough check of validity was also carried out, based on an inventory of 70 statements involving old people, drawn at random from the universe of materials isolated by all coders. This test, developed by E.K. Maxwell, was completed by nine coders; percentage of agreement about how to code these 70 statements was generally satisfactory, in some instances reaching 100%.
The remaining methodological details need not be gone into here; they are in any case retrievable from materials already available, particularly our manual of definitions and instructions for coders (Maxwell, Krassen-Maxwell, and Silverman, 1978) and a more recently prepared paper dealing with our procedures in this holocultural study (Silverman and E.K. Maxwell, 1982).

The hypothesis originally prompting this research related the control of valuable information among old people to the esteem in which they were held by other community members. The proposition has received ample support (Silverman and Maxwell, 1983). It seemed hardly proper, however, to investigate the treatment of old people in a holocultural study and ignore the question of gerontocide. Not only is the practice a dramatic one, and thus likely to be fully reported in the ethnographic material, but it is a custom which non-professionals are probably more aware of than any other as regards non-Western societies. The man on the street knows what happens to aged Eskimo, if he knows nothing else about the anthropology of aging. At the same time, we found that previous attempts to explain the custom were inadequate because they were supported only by anecdotal evidence (e.g., Coon, 1948) or were methodologically flawed (Simmons, 1945).

We included in the codebook several items which appeared likely to be related to gerontocide. A number of ecological and structural variables was directly related to the practice, including dependence on hunting, gathering, fishing or pastoralism; a low level of social stratification; bilateral descent type; and an absence of a rigid social structure as reflected by one or another barrier to communication among community members. This complex of associations suggests that gerontocide is found chiefly in societies at the lower end of the spectrum of societal complexity, although the presence of a rigid community social structure could render the custom less thinkable regardless of the level of complexity. These findings are discussed elsewhere (Maxwell and Silverman, 1981). Here, we would like to examine a particular causal sequence which leads from a set of social structural activities (subsistence type) through a set of psychological attitudes (contempt for the aged) to the execution of the elderly.

Our study provided the coder with an opportunity to include information on the extent to which the elderly appeared to be held in contempt by other members
of the community. This information was not pre-coded. Rather a blank page was included in each codebook and the coder recorded instances in the form of direct quotes. Some material was recorded for 65 of our 95 societies. The statements were categorized by E.J. Maxwell into two sets: (1) complaints made about the elderly, which were expressive of attitudes toward them, and (2) acts of mistreatment. We were able to identify eight kinds of complaints against the elderly. Specifically, these categories of complaints concerned:

(1) physical weakness
(2) senile deterioration
(3) possession of obsolete skills
(4) acquisition of negative characteristics such as powers of witchcraft
(5) lack of a family support network
(6) loss of wealth
(7) devalued appearance
(8) hoarding of power or wealth

These complaints were commonly used as justifications for mistreatment of the elderly. We identified 18 kinds of acts of mistreatment, ranging in forcefulness from simply grumbling about them in their presence to denying them all food except scraps. Expectably, the two sets of statements—complaints and acts of mistreatment—were highly correlated, in that societies which complained often about the elderly tended more often to mistreat them.

"Contempt" here will be defined simply as the sum of complaints made against the elderly as explanations for treating them poorly. Our material on this variable allows for a rather delicate analysis which will not be attempted here but which has been discussed elsewhere (Maxwell, 1979; Maxwell and Maxwell, 1980).

Of the eight kinds of complaints, physical weakness of the elderly is the one most commonly encountered in the literature, being found in 23 societies. This is greater than twice the frequency for any other single explanation of poor treatment. A multiple regression analysis reveals that it is not the most important, in terms of explaining mistreatment (Maxwell and Maxwell, 1980); however, it assumes particular significance in the study of gerontocide.

The aged were deliberately killed in 13 of our 95 societies, approximately 14%. Physical weakness
as an explanation for contempt is directly related to killing of the aged, as Table I indicates.

**TABLE I**

Physical Weakness as an Expression of Contempt Versus Killing of the Aged

<table>
<thead>
<tr>
<th>Physical Weakness</th>
<th>Killing of the Aged</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>Absent</td>
<td>66 (92%)</td>
<td>16 (70%)</td>
</tr>
<tr>
<td>Present</td>
<td>6 (8%)</td>
<td>7 (30%)</td>
</tr>
<tr>
<td>Totals</td>
<td>72 (100%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

\[ \phi = .28; \quad x^2 (1) = 7.23, \ p < .05 \]

We also found that old people were abandoned or exposed to the elements in 9 of our societies, roughly 9%. Physical weakness also shows a significant association with abandonment or exposure, as is shown in Table XII.
TABLE II

Physical Weakness as an Expression of Contempt

Versus Abandonment of the Aged

<table>
<thead>
<tr>
<th>Physical Weakness</th>
<th>Absent</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandonment of the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aged</td>
<td>68 (94%)</td>
<td>18 (78%)</td>
</tr>
<tr>
<td></td>
<td>4 (6%)</td>
<td>5 (22%)</td>
</tr>
<tr>
<td>Totals</td>
<td>72 (100%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

\[ \chi^2 (1) = 5.32, p < .05. \]

Phi  Chi

A few societies used either technique for ridding themselves of their aged, depending on circumstances. All together, we found evidence of abandonment and/or killing in twenty of the 95 societies in our sample: !Kung Bushmen, Bakongo, Kikuyu, Shilluk, Khalka Mongols, Kimam, Fijian, Ifugao, Chukchee, Ingak, Copper Eskimo, Micmac, Pomo, Shoshone, Macthe, Callinago, Aymara, Siriono, Tupinamba, and Yahgan. No geographic trends are obvious except that the practice is absent from
the Circum-Mediterranean area, a finding no doubt due partly to the small number of societies in our sample from that region and to the fact that societies located there tend to be rather high in social rigidity, a force which works against the devaluation of old people, as we have observed elsewhere (Silverman and Maxwell, 1983).

The reason why physical weakness assumes such importance in this sort of analysis is that it serves as an index of motivation, however imperfect. Treated as a sociocultural issue, gerontocide may be linked with a number of ecological and structural antecedent variables, such as social stratification, but variables at the sociocultural level of analysis may sometimes leave us with lacunae in our understanding of social processes. It is not that a strictly sociocultural analysis is wrong, merely that it is incomplete.

A notion of cause is involved here which deserves brief comment. Aristotle conceived of four kinds of causality, expressed in any human act, such as, say, building a rectangular wooden house. The first kind of causality was "material." The availability of timber, for instance, will "cause" wooden housing to be built. The second kind was "formal." The concept of rectangularity will prompt the building of a rectangular house. The third kind was "efficient." An efficient cause would include all of the characteristics of the men building the house, including their motives such as their receiving pay checks for doing it. The fourth kind of cause is "final." This includes the ultimate purpose of building the house, in this case, the need for shelter.

This typology has played an important role in some recent debates concerning the relationship between solidarity, cross-cousin marriage, and descent. In their critique of Levi-Strauss's theory of cross-cousin marriage, Romans and Schneider argued that Levi-Strauss's "cause" was social solidarity, a condition or state of the social system, and that this was a final cause and needed to be complemented by the identification and discussion of an efficient cause, namely the motives of the people arranging and entering into the marriages in question; it could safely be assumed that, though the marriages might have enhanced the likelihood of community survival through solidarity, none of the individuals being married had ever read Emile Durkheim and thus gave little thought to solidarity. Rather, a man married the cross-cousin that he did
because he preferred her to his other cross-cousins (Levi-Strauss, 1969; Romans and Schneider, 1955).

Max Weber too understood the necessity for interpreting social behavior in terms of subjective meanings in order to achieve a fuller comprehension of the event, a method of analysis he called Verstehen. Similarly, by examining such rough expressions of motives as grumbling about feebleness in the aged, we gain a better grasp of what is going on in the mind of the individual; that is, how social forces effect themselves in people's minds. No doubt the level of analysis could be reduced still further and an investigation be made into the biochemistry of contempt, but our data do not permit such a procedure! At any rate, old people are not executed or abandoned only because they live in a non-stratified society, let us say, but because members of the community perceive the old person as enfeebled. All human acts take place in a sociocultural context, and motives help explain the way a sociocultural determinant manifests itself behaviorally. Physical weakness can be seen as an efficient cause of gerontocide, impinging directly on the decision to commit murder.

Ecology and Attitudes Towards the Aged

But what of the social frame within which these motives are generated? Turning to the variable of subsistence type, we can examine how this is related to the attitude toward the physical weakness of the elderly. Human beings exhibit great resourcefulness in wresting a living from the environments in which they live. Gaining subsistence takes varied forms, depending on available technology and food sources. Murdock and Morrow (1970) examine all of the techniques used by the societies in our sample and categorize them into five types. The types are defined as follows. (Case frequencies are in parentheses; the total number of societies here and elsewhere may be less than 95 because of missing data.)

1. **Hunting and gathering (23)**, including fishing and the pursuit of aquatic animals.
2. **Herding (6).**
3. **Horticulture (12)**, relying on small vegetable gardens or groves of trees.
4. **Extensive agriculture (18)**, including field crops, and employing fertilization, crop rotation, or other advanced techniques.
5. **Extensive agriculture with irrigation** (29).

Based on this typology a crucial distinction can be made between those subsistence types in which little or no surplus is obtainable (the first three types), as opposed to those where the potential exists for the accumulation of surplus beyond subsistence needs (the two agricultural types). Thus, we may dichotomize our sample between agricultural and non-agricultural societies in order to explore how the varying demands made by these economic factors affect the attitude toward the elderly.

### TABLE III

**Subsistence Type Versus Physical Weakness as an Expression of Contempt**

<table>
<thead>
<tr>
<th>Physical Weakness</th>
<th>Non-Agriculturalists</th>
<th>Agriculturalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>14 (33%)</td>
<td>7 (15%)</td>
</tr>
<tr>
<td>Absent</td>
<td>28 (66%)</td>
<td>40 (85%)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>42 (100%)</strong></td>
<td><strong>47 (100%)</strong></td>
</tr>
</tbody>
</table>

\[ \Phi \chi = .22, \quad \chi^2 (1) = 4.16, \quad p < .05. \]
We see that agriculturalists are not as likely as nonagriculturalists to grumble about the lack of strength and endurance in their aged. We can state that it is unlikely that nomadism among non-agriculturalists accounts for their complaining about lack of strength, since we found no significant relationship between community movement and lack of strength ($x^2 = 1.27$).

One of several things that differentiates less-advanced food-getters from agriculturalists is the likelihood of their members being more intensively involved in hunting without firearms, fishing, riding herd, marching quickly over long distances, and other activities which are dramatic in nature and depend to some extent on sudden and relatively brief bursts of strength and endurance. And it may be that under these circumstances old people, particularly men, are revealed as enfeebled. An old !Kung Bushman simply cannot run after a wounded giraffe. In contrast, day-to-day efforts in agricultural societies are likely to be unremitting, dull and plodding. The work may be as difficult, perhaps even more difficult, over the long run, but the performances of old people will not stand out in such stark contrast to the work of younger community members. Old people in Japan stand in the rice paddies and work alongside others in transplanting seedlings. They no doubt work more slowly, but who pays much attention?

The point we are making can be given dramatic resonance by reference to an episode in the anthropological literature from the Siriono, semi-nomadic hunters and gatherers of Bolivia.

Since status is determined largely by immediate utility to the group, the inability of the aged to compete with younger members of the society places them somewhat in the category of excess baggage. Having outlived their usefulness they are relegated to a position of obscurity. Actually the aged are quite a burden. They eat but are unable to hunt, fish, or collect food; they sometimes hoard a young spouse, but are unable to beget children; they move at a snail's pace and hinder the mobility of the group. .....

When a person becomes too ill or infirm to follow the fortunes of the band, he is abandoned to shift for himself (Holmberg, 1969: 224-25).
The fate of an enfeebled old person in such a band of hunters and gatherers may be contrasted with that of an old person, who may be similarly enfeebled, in a traditional agrarian community such as that of rural Ireland in the 1930's. When the elderly household head finally turned his farm over to one of his "boys" he retired from the hard work of the field and did little more than putter about the house, visit his neighbors, and give the younger people advice which was always politely received but not necessarily acted upon. Though the aged contributed little to the household, they were still treated with great respect, particularly the men.

A farmer visiting another takes his place at the hearth seat, his sons lag behind and occupy the back of the room. When the community gathers in the wake-house to honor the dead, the places by the fire go to the old adult "men" and "women"; the "boys" and "girls" must group themselves behind. They come forward only when called upon. At country "stations" the elder men and women file in for confession and come forward for communion first. On the road to shop, church or fair, the young man must keep pace, and the elder may call him to his side (Arensberg, 1968: 116).

This brings up tangentially a point which bears remarking upon. Our data indicate that gerontocide is usually a family affair. It is the result of decisions made by an intimate group of kinsmen, often jointly with the old person. We have never encountered in our data any instances of the mass execution of old people. They tend to be dispatched singly, after due consideration of their circumstances, and not executed in groups as prisoners of war might be. Although the actual means used in executing the elderly varied a good deal, one of the more frequently encountered techniques was strangulation or suffocation while the old person is dying or close to it.

A relevant negative finding of ours may be mentioned. It might be thought that the more difficult the climate, the more demanding the effort to adjust to it and carry on with the food quest, and therefore the more grumbling there will be about the inability of the aged to work as effectively as others. This is not the case.
TABLE IV

Climatic Type versus Physical Weakness as an Expression of Contempt

<table>
<thead>
<tr>
<th>Physical Weakness</th>
<th>Harsh</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>9 (21%)</td>
<td>7 (27%)</td>
</tr>
<tr>
<td>Absent</td>
<td>33 (79%)</td>
<td>19 (73%)</td>
</tr>
<tr>
<td>Totals</td>
<td>42 (100%)</td>
<td>26 (100%)</td>
</tr>
</tbody>
</table>

\[ \chi^2 (1) = .05, \text{NS.} \]

Phi Chi

Our measure of severity of climate took into account extremes of temperature in either direction as well as lack of rainfall.

1. Harsh climates (42) included: Tundra, coniferous forests, desert shrubs, and tropical and subtropical regions.
2. **Moderate/Mild climates** (26) included: Mediterranean, steppe, temperate forests, temperate grasslands, oases, and subtropical shrubs. As Table IV reveals, there is no relationship between severity of climate and complaints about lack of strength in old people.

**The dynamics of gerontocide.**

Before summing up the results of the current study, some comments are in order concerning the relationship between our work and the results of Glascock reported elsewhere in this journal.

The focus of Glascock's paper differs somewhat from ours in that his is somewhat broader, since the phenomenon he investigates, death-hastening behavior, is defined as a set of non-supportive acts leading to the death of the aged individual. These acts include the forsaking of old people, which appears to involve such things as improper care and feeding during their physical decline. Our dependent variable, gerontocide, was more specifically defined as the actual killing or physical abandonment of the elderly, and the practice was seen as one of several distinct forms that mistreatment might take. All these forms were treated as consequences of a set of sentiments, defined as contempt, that are found in some communities.

Despite this difference in definition, it is interesting that our results, though arrived at independently, are consistent with his. Glascock finds some form of non-supportive treatment present in 84% of his sample; we found some form of "negative deference" present in roughly 61% of our sample. The difference in frequency may be attributable again to the fact that Glascock's definition of non-supportive treatment was somewhat broader than ours for negative deference. He included "old people living apart from the main social group" as an instance of non-supportive treatment, for instance, while we did not.

Our results are also concordant in the sense that death-hastening behavior and gerontocide are found in societies low in social complexity while supportive behavior or deference seem to be stronger in more complex societies.

On the other hand, one difference between Glascock's results and ours should be pointed out. We found
no significant relationship between the harshness of the climate and the practice of gerontocide. We were unable to uncover any significant relationship even though we used the same climatic data set as Glascock -- namely the Ethnographic Atlas -- and even though we arranged the climatic types into different logical sets and, finally, even though we fully expected such a relationship to emerge. As we noted earlier, we coded both desert and tundra areas, in which Glascock found the relationship particularly strong, as "harsh." We also included coniferous forests (such as those of Siberia) and tropical regions (such as rain forests) as "harsh" and still found nothing.

Much of what differences exist between Glascock's findings and ours may be due to non-coextensive definitions. Glascock's definition of decrepit old people combine physical and mental attributes in a single variable where our explanations for contempt distinguished between "physical weakness" and "senile deterioration." Several times in his work Glascock states that old people are supported until they become burdens, a point which seems to coincide with a decline in physical health. "Once illness, actual or perceived occurs, the definition changes and at some point, the time comes when the best thing for all concerned is to hasten the death of the decrepit individual" (Glascock, p.54). In our investigation, the change from intact to decrepit, this volume p. 54, does not seem to occur so abruptly, although it does indeed seem to be associated with "usefulness."

Indeed, we have noted that ill and enfeebled old persons are not invariably killed or abandoned, even in those societies in which we would otherwise expect such practices to occur. Much seems to depend on circumstantial considerations, including whether or not the old person remains "useful" in some sense or other, despite his dependence on others. It is unclear to non-native observers how acute were the sensibilities of leaders such as Mao Zedong or Leonid Brezhnev in their declining months or years, but it seems reasonable to assume that their value as symbols of something valuable to other members of their societies was important; and they may stand as paradigms for the treatment of enfeebled older persons in less developed societies.

In any case we and Glascock have consistently assumed that differences between intact and decrepit aged are noted by members of other societies and further, in this paper, we assume that while most acts of mistreat-

89
ment are directed towards those elderly least able to support themselves or to protest such treatment, namely the decrepit, one must take account of the usefulness, both symbolically and instrumentally, of the aged to other members of society.

A summary of our investigation indicates that a causal sequence exists in which a sociocultural antecedent, namely subsistence techniques that are less complex than most forms of crop cultivation, generates a set of conditions in which the poorer physical performance of the elderly becomes notable, chiefly because of their lessened ability to secure food or otherwise make themselves valuable through the exercise of dramatic displays of physical effort. As a result, younger adults complain about the feebleness of the elderly. And associated with this devaluation of old people in some instances may be a tendency to hasten their deaths. This dynamic sequence appears to prevail whether or not the community is entirely, or even partly, nomadic, and regardless of climatic stress. We expect that work in progress will shortly clarify some other aspects of the practice of gerontocide in our sample and perhaps render the unthinkable a bit less incomprehensible.

Perhaps the most productive approach to illuminating the way in which these dynamics are reflected in contemporary life, both in Euro-american society and in other nations, is to view the process in terms of cost-benefit analysis. In societies which are low in social complexity and which control limited sources of energy, old people tend to be killed or abandoned partly because they are no longer capable of the sort of dramatic efforts upon which much of the food supply depends. They are unable to feed themselves let alone help feed others, such as the children.

In middle-level societies, in which adequate food is available but productivity may be low, the marginal utility of increments of labor is preserved. Old people, even in states of some physical and mental decline, may still be able to contribute significantly to the household, putting in their hours of tedious but necessary work. So the factors favoring the practice of gerontocide tend to weaken. In fact, previous work has suggested that the overall esteem in which old people are held seems to be considerably higher in traditional agrarian societies than in less complex ones (Silverman and Maxwell, 1983).
It may be, however, that as the nations of the world evolve toward a single Kroeberian universal pattern, in the direction of agribusiness and technological specialization -- despite pockets of internal marginality -- discrimination against the aged is appearing once again, though its forms are more subtle. Rosow has argued that this apparent decline in the status of old people in modern societies is due largely to the development of industries that are not labor intensive. "Our economy is inordinately productive, and our problem is to maintain demand, not supply. The growth of technology and automation has generally eliminated labor shortages except in certain professions and special labor categories. Old people do not particularly command those new skills which are in short supply. Therefore, with high productivity and no general labor scarcity, their marginal utility in the labor force tends to be low. They have relatively poor employment prospects once they are out of work because their contribution to the economy is not highly valued (Rosow 1974: 4)."

And it may be that gerontocide, too, is now routinely practiced, perhaps to a greater extent than ever. It is impossible to know precisely how frequent gerontocide is in modern hospital settings but it is commonly recognized that the aged are much less likely to receive heroic treatment than younger persons, and that frequently life-sustaining systems are withdrawn from them as a result of a deliberate decision, with or without the involvement of the intimate kin group. Whether or not these practices constitute murder in a legal sense is a matter now under debate in the courts and elsewhere.

Finally, it seems a great irony that, for whatever diverse sets of reasons, gerontocide should be found concentrated in communities that are either technologically very simple or very advanced.
NOTES

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Simmons, L. 1945 The role of the aged in primitive society. New Haven: Yale.
The extension of life expectancy is a celebrated feat of this century, but the graying of the population is a matter of global concern shared by both developed and developing regions. In particular, the predicted sharp increase of older people in developing countries, from 200 million in 1980 to 350 million by the year 2000, is causing considerable alarm. Many of these nations already suffer from over-population, meager resources and sluggish economic development. Moreover, the acute income inequality prevalent in these countries indicates that a massive number of the elderly are destitute. To make the matter worse, a growing body of empirical evidence suggests that in the process of development, the poor sector loses ground in relative and perhaps even in absolute terms (Kuznets, 1955; Myrdal, 1957; Prebisch, 1950; Adelman and McRris, 1973; Chenery et al, 1974; Adelman and Robinson, 1978; World Bank, 1981). An implication of these phenomena is that in addition to the absolute growth in the aged population, the number of elderly suffering from poverty will increase for some time to come.

Using reports of international organizations such as the United Nations, International Labor Organization, and World Bank, as well as studies conducted by social scientists, the present paper will examine the implications of economic development for the aged
population in the Third World nations. Particular attention will be paid to the potential contributions of public policy and foreign assistance to the improvement of their status. In addition, drawing on the deviant example of Taiwan, which has achieved an economic takeoff without widening income inequality, the paper will identify public policies that would benefit older people in developing countries. The island nation's experience is also noteworthy in that its aged population is relatively integrated into the developmental process (cf. Barrett and Whyte, 1982; Gallin, 1966).

**Growth Of Aging Population And Poverty In Developing Nations**

The global population of those aged 60 and over is predicted to grow by over 80 percent during the last two decades of the 20th century. Much of this increase will occur in less developed regions (United Nations, 1981). Even though by the year 2000, the proportion of the elderly population in developing regions is predicted to reach the level of 7.1%, which is substantially lower than the forecasted figure of 18.2% for developed countries, the absolute number of aged in the Third World (about 360 million) will be much greater than that in the rest of the world (i.e., 200 million).

**TABLE 1**

| Number of and Proportion of Total Population Aged 60 and Over, by Major Areas in 1980 and as Projected in 2000 |
|-------------------------------------------------|-------------------------------------------------|-----------------|-----------------|
| Percentage of the Population Aged 60 and Over (Per 1000 inhabitants) | Total Number of Aged 60 and Over (in millions) |
| More Developed Regions | 15.2 | 18.2 | 179 | 244 |
| Less Developed Regions | 6.1 | 7.1 | 200 | 350 |
| Total | | | 379 | 594 |

The sharp increase of elderly in less developed regions must be considered in relation to the economic reality in these areas. The most critical feature of the economy is its pervasive poverty. As indicated by the World Bank Report, 56 of the United Nations' member countries (i.e., all of the 'low income countries' and nearly one-half of the "middle income countries") have a per capita Gross National Product of less than $700 (see Table 2). Of these 56 nations, 22 have had either near-zero or negative growth rates in recent times. (These slow-growing countries are mostly located in Sub-Saharan Africa and South Asia.)

The low level of per capita income in late developing countries presents a bleak enough picture. But the reality of poverty indicated by the pattern of income distribution is even more alarming. The equity of household income distribution in these nations, measured by the share of the poorest 40%, is at a level far below the ones enjoyed by the Industrial Market Economies. The acute inequality in income distribution, together with the modest per capita income in developing nations, reduces a massive number of people to an existence below the subsistence level. In fact, the United Nations currently estimates that there are 780 million people in absolute poverty (World Bank, 1981).

As is widely known, the aged in industrial nations are overrepresented among the poor, but it is difficult to ascertain the extent to which this holds true in the rest of the world. Partly because the elderly tend to live with their relatives in developing countries, pooling assets and earnings, it is often impossible to calculate "per capita income" meaningfully and accurately. A few available studies, however, do suggest that older persons are indeed poorer than the rest of the population, (Economic Commission for Latin America, 1970; Jarvis, 1974; Fishlow, 1972). For example, Fishlow reports that the bottom half of the income scale in Brazil includes a sizeable proportion of retired persons and pensioners, and that heads of households over 60 years old are disproportionally found among poor families (1972).

Similarly, the emerging body of economic and anthropological evidence warns that the reliance on a household income tends to disguise the poverty experienced by underprivileged members of the family, such as children, women and elderly (World Bank, 1981). Despite the myth of respect for the aged in pre-modern societies, their status within the family varies greatly, depending on their mental and physical conditions,
<table>
<thead>
<tr>
<th>GNP per Capita (U.S.$)</th>
<th>Percentage of Household Income</th>
<th>Life expectancy at birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest 20%</td>
<td>Second quintile 20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Highest 20%</td>
</tr>
<tr>
<td></td>
<td>(In Annual growth(%)) (year)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1979</td>
<td>1960-79</td>
</tr>
<tr>
<td>(Low-income countries)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>90</td>
<td>- 0.1</td>
</tr>
<tr>
<td>Chad</td>
<td>110</td>
<td>- 1.4</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>130</td>
<td>1.3</td>
</tr>
<tr>
<td>Somalia</td>
<td>----</td>
<td>- 0.5</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>170</td>
<td>0.5</td>
</tr>
<tr>
<td>India</td>
<td>190</td>
<td>1.4</td>
</tr>
<tr>
<td>Malawi</td>
<td>200</td>
<td>2.9</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>230</td>
<td>2.2</td>
</tr>
<tr>
<td>China</td>
<td>260</td>
<td>----</td>
</tr>
<tr>
<td>Tanzania</td>
<td>260</td>
<td>2.3</td>
</tr>
<tr>
<td>Uganda</td>
<td>290</td>
<td>- 0.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>370</td>
<td>4.1</td>
</tr>
<tr>
<td>(Middle-income countries)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>400</td>
<td>- 0.1</td>
</tr>
<tr>
<td>Egypt</td>
<td>480</td>
<td>3.4</td>
</tr>
<tr>
<td>Honduras</td>
<td>530</td>
<td>1.1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>670</td>
<td>3.7</td>
</tr>
<tr>
<td>Peru</td>
<td>730</td>
<td>1.7</td>
</tr>
<tr>
<td>Turkey</td>
<td>1330</td>
<td>3.8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1370</td>
<td>4.0</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>1480</td>
<td>7.1</td>
</tr>
<tr>
<td>Mexico</td>
<td>1640</td>
<td>2.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>1780</td>
<td>4.8</td>
</tr>
<tr>
<td>Venezuela</td>
<td>3120</td>
<td>2.7</td>
</tr>
<tr>
<td>(Industrial market economy)</td>
<td>GNP per Capita (In Annual U.S.$) growth(%)</td>
<td>Percentage of Household Income shared by 20% quintile</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Japan</td>
<td>8810</td>
<td>7.9</td>
</tr>
<tr>
<td>United States</td>
<td>10630</td>
<td>4.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>13420</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Note: For more complete listing, see World Bank (1981), Tables 1 and 25.
marital status, property ownership, food availability, and so forth (Simmons, 1945; Cowgill and Holmes, 1972; Nussburg and Osako, 1981; Sokolovsky 1983). Indeed, in some of the worst cases, to secure food for the young and strong who must work to support the family, the older people are fed last and least (de Beauvoir, 1976). Such a practice may be more common among aged women (Turnbull, 1972) who in many societies customarily eat only after the rest of the family have been fed. The high mortality rates of elderly women in less developed countries (for example, 92.1 per 1,000 women aged 60 and over in contrast to the equivalent male figure of 85.7 in Matlab, Bangladesh) may be a consequence of such a practice (Chen et al, 1981).

**Effects Of Economic Development On The Aged**

Admitting that a massive number of aged currently suffer from dire poverty, will this condition improve as the nations in question proceed on their course of industrialization? To be certain, economic development is considered to be a necessary condition for the ultimate reduction of poverty, but economists generally believe that growth alone is not enough to curtail poverty (Kuznets, 1955; Myrdal, 1957; Prebisch, 1950; Adelman and Morrie, 1973; Chenery et al, 1966; Adelman and Robinson, 1978). Furthermore, many of them fear that income inequality in the least developed countries will rise for some time prior to their industrial take-off. This notion is expressed in the well-known Kuznets thesis that the incomes of the poorest 40 percent of the population normally grow more slowly than the average until per capita income reaches a certain level (Kuznets, 1955; 1979). The World Bank (1981) currently estimates this point at a range of $700 to $900. Only beyond this level do the incomes of poorer groups tend to grow faster than the average. (1)

Poverty in rural areas, where a large majority of the aged reside, deserves special attention. The past growth in developing countries has not always succeeded in reducing poverty, in general, and rural poverty in particular. For instance, according to an ILO study, in India, Indonesia, Bangladesh, Sri Lanka, and Malaysia, which account for 70 percent of the rural population of the non-socialist developing world, rural poverty is increasing, or at best is not diminishing (ILO, 1980). This trend reaches disturbing levels in a country like Bangladesh where 90 percent of the non-urban households are living in poverty. Perhaps even more disquieting is the possible negative
impact of technological improvements on the low-income sector. For example, in Punjab, India, the "green revolution" has brought a fast increase in the production of wheat. Real income per head rose 3.5% in the 1960's -- two-and-a-half times as fast as India as a whole. Despite this remarkable progress, the proportion of the rural population living below the poverty line increased from 18% to 23% ten years later (ILO, 1980).

Why does the widening income inequality occur in the early stages of industrialization? Economists may disagree among themselves over the specific causes and processes of widening economic inequality. And yet, the emergence of a dualistic economy as well as the unequal relationship between the two sectors are the major underlying causes (e.g. Frank, 1969, Amin, 1974; Rubinson, 1976; Bornschier et al, 1979; Chase-Dunn, 1975; Adelman and Morris, 1973). The introduction of modern industrial economy, which is often assisted by foreign governments and private investors, tends to create a modern enclave (or the "core" sector in dependency theory terminology) in the developing society, whether it entails plantation, extractive, or industrial enterprises. Within this sector, particularly in the case of industrial production, modern technology is extensively employed and workers receive ample benefits. The development of such a sector, however, has not led to the expansion of structural differentiation and economic diversification which are assumed to be mechanisms leading to greater equality (Furtoda, 1972; Galtung, 1971; Girvan, 1973). Instead what commonly emerges is a dual structure composed of a small insulated modern sector and a large traditional sector. The latter gains little from technological advancement, because according to the dependency theorists, the traditional sector is structured to serve the core. As a result, in the city, a mass of low-skilled workers (sometimes called "depressed working class") continues its meager existence as small shop laborers, peddlers, domestics, and the like. Some of them are reduced to living in urban slums, which are common sights in the developing cities of Asia, Africa and Latin America (United Nations, 1977).

Several studies have argued that in large measure peasants also fail to receive benefits from the development of a modern sector (Frank, 1969; Amin, 1974; Jarvis, 1974; Adelman and Robinson, 1978). If domestically manufactured or imported goods replace handicrafts, which provide extra income for the peasants, they lose an important source of income. Furthermore, the price of agricultural goods, due to inelastic
demand, tends to come down, whereas that of consumer goods, which are sometimes in short supply, is likely to go up. Such a circumstance tends to perpetuate rural poverty, contributing to the unequal distribution of income between urban and rural sectors.

The impact of these social changes appears to be more serious for older persons than for the younger population. Older workers generally lack the training and skill which would qualify them for a position in the modern sector. Furthermore, the destruction of handicraft industries affects the older generation more severely, because they are not only more likely to be trained artisans and cottage workers, but are also less able to acquire new skills. Finally, the widening economic gap between urban and rural sectors benefits the youth more, because older people are more heavily concentrated in villages and have lower propensity to migrate to cities (United Nations, 1980).

In the same vein, modernization theorists would argue that industrialization itself undermines the status of the aged (Goode, 1963; Cowgill and Holmes, 1972). They point out several crucial aspects of urbanization and industrialization which impinge on the family system and the status of the elderly. First, industrialization calls for physical movement from one locality to another, providing the young generation a greater opportunity to free themselves from the authority of the aged. Secondly, the proliferation of urban and industrial institutions, such as schools, police departments and banks, has undermined large corporate kin groups since they now handle the problems that were solved within the kin network before industrialization. Thirdly, industrialization creates a value structure that recognizes achievement more than birth. A majority of modern jobs are allocated on the basis of ability rather than family connection. Consequently, the elders have little to offer the younger generation in exchange for its acceptance of the familial order. Thus, compared to the traditional society in which most earned their livelihoods by cultivating land, which was commonly owned by the elders, the aged now have a substantially reduced basis upon which they could enforce their power. As a result of these changes, "in preliterate societies (the functions of old people) are likely to be viewed as vital social functions, while in modern societies they tend to be seen as peripheral and unimportant" (Cowgill and Holmes, 1972:307).
Can Foreign Aid And Investment Alleviate Poverty Among The Aged?

It emerges from the above discussion that the limited resources and the structural characteristics of developing nations are contributing to their extensive poverty, especially on the part of their aged population. To alleviate the economic scarcity in these countries, international agencies and advanced nations have disbursed a variety of aid and investments. But there is considerable controversy over the effectiveness of these international transactions in encouraging economic development and reducing poverty, especially among the aged.

During the last few decades, the nations of Asia, Africa, Latin America and the Middle East have received massive amounts of foreign aid and investment. As shown in Table 3, in 1975, $38.8 billion of medium and long-term capital were disbursed to developing regions. Out of this amount, official grants (which need not be repaid) amounted to $6.0 billion, while concessional loans and loans at market terms amounts to 7.6 and 25.1 billion dollars, respectively. In comparison to these types of capital flows listed in Table 3, investment in developing countries by international private parties is relatively small, only reaching the level of $2 billion (World Bank, 1979).

In addition to grants, loans and private investment, developing countries receive a variety of project assistance aimed at facilitating social and economic development. For example, in 1978, the United Nations Development Programme, the chief funding organization for technical cooperation and aid within the United Nations, expended $555.7 million to assist developmental efforts, out of which $474 million was spent on field costs (United Nations, 1981). Through U.N. agencies such as the International Labor Organization, UNESCO, FOA, and World Bank, the Development Programme spent 22% of its budget on projects in agriculture, fishery, and forestry; 20% on an economic and social planning project; 17% on the industrial sector; and 9% on transport and communication. Few of these projects are earmarked for older populations (ILO, 1981).

There has been a long-standing difference of opinion concerning the effect of international investment and aid on the economic development of the recipient country (see Bornschier et al, 1979, for a comprehensive review). Neo-classical economists as well as modernization theorists predict that the international economic
TABLE 3

Net Disbursements of Medium- and Long-Term Capital to Developing Countries, 1970-1985

<table>
<thead>
<tr>
<th></th>
<th>Billion Current US Dollars</th>
<th>Average Annual Real Growth Rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official Grants</td>
<td>2.1</td>
<td>6.0</td>
</tr>
<tr>
<td>Concessional Loans</td>
<td>2.4</td>
<td>7.6</td>
</tr>
<tr>
<td>Bilateral ODA</td>
<td>2.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Multilateral</td>
<td>0.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Loans at Market Terms</td>
<td>6.0</td>
<td>25.1</td>
</tr>
<tr>
<td>Multilateral</td>
<td>0.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Official Export Credits</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>10.5</td>
<td>38.8</td>
</tr>
</tbody>
</table>

Note: At 1975 prices

transactions benefit development and bring about more equal income distribution in developing countries (Kerr et al., 1960; Fei, Ranis, and Kuo, 1979; Lenski, 1966; Cutright, 1967). On the other hand, dependency theorists would argue that the effects are on the whole negative (Adelman and Morris, 1973; Girling, 1973; Frank, 1969; Amin, 1974). In neo-classical economics, the flow of capital from advanced to less developed countries is understood to be a main mechanism of economic growth. Capital is capital and its investment should lead to increased production in the enterprises into which it is channelled, as well as economic growth in other sectors due to increased demand (see Rubinson, 1976). International flow of capital to areas where it will bring the highest return will result in the maximization of growth for the system as a whole and presumably also for the peripheral areas to which the capital flows. The benefits of foreign investment will spread due to incomes created by new employment and the "trickling down" effect caused by increased demand for land, labor, and materials. The input of foreign aid should result in growth for the same reasons and also because it supplements local savings and makes greater investment possible (Chenery and Strout, 1966). The use of aid funds to build public works and infrastructure should have positive effects on later growth.

In sharp contrast, a new breed of social scientists, collectively called dependency theorists, hold radically different views (Frank, 1969; Amin, 1974; Rubinson, 1976; Bornschien et al., 1978). Focusing on the "development of underdevelopment," to use Frank's term, and power-dependence relations in the world economic system, dependency theorists argue that the economic penetration of advanced nations, through investment and foreign aid, tends to slow down the rate of economic growth and widen income inequality in the poorer nations. This occurs because the foreign agents influence the economic development through the process of "exploitation, structural distortion, and suppression of autonomous policies," perpetuating the economic duality in the country (Chase-Dunn, 1975). In an article titled "Gross-National evidence of the effects of foreign investment and aid on economic growth and inequality: A survey of findings and reanalysis," Bornscher et al report that without an exception the existing studies indicate that "investment and aid dependence have the effect of increasing inequality" (1978: 664). This result, according to them, holds true regardless of the geographic location of the nation.
The implications one can draw from these competing theories about the influence of foreign investment and aid on the situation of the Third World aged are contradictory. On the one hand, some indications are positive. For instance, neo-classical economists appear to imply that the overall growth of an economy, which is fostered by international economic interaction, will benefit even older persons, because they assume the occurrence of structural differentiation and trickling effects (cf. Cutright, 1967). From a somewhat different perspective, reports of international agencies also suggest that certain types of foreign aids have effectively improved economic and social conditions in developing nations (United Nations, 1980; World Bank, 1978, 1981; ILO, 1981). It should be noted that many assistance projects are aimed specifically at countering the proliferation of a sharply dualistic economy. To mention a few, rural development plans, irrigation projects, the subsidization of cottage industries are all designed to make the traditional sector viable and productive.

On the other hand, it is possible to draw a negative implication from the neo-classical argument. As discussed before, according to modernization theorists, urbanization and industrialization generally undermine the status and power of the aged. Then, to the extent that international economic transactions contributed to economic growth, they adversely affect the aged population. Dependency theorists also point out that the developing nations' involvement with the international dependency relationship would fail to benefit the elderly. Economic dualism excludes most aged workers from the primary sector because they generally lack the skills to qualify themselves for technically advanced jobs. In addition, the decline of handicrafts as well as the unfavorable terms of trade for agricultural goods tend to place both urban and rural elderly in a disadvantaged position (cf. Adelman and Norris, 1973).

The wide discrepancies among the above interpretations suggest that it is premature to ask a blanket question, "Does foreign aid and investment benefit the aged in the recipient nation?" Perhaps it is more relevant to ask, "In what circumstance is the international economic transaction conducive to the reduction of poverty among the aged?" In fact, the value of such an approach is clearly indicated by the recent example of Taiwan. As discussed below, the island nation did manage to accomplish industrial development without widening income inequality and victimizing its older population.
Implications Of The Taiwanese Experience For Aging Policies

Taiwan shares the experience of colonial regime and war with many other countries of the developing world. Prior to 1895, it was a province of China, but as part of the settlement of the Sino-Japanese War, Japan obtained control of the island in 1895. The colonial rule of Japan lasted until its defeat in 1945. During 1948 and 1949, the Chinese Nationalists found refuge in Taiwan as they lost the Chinese Civil War. And in 1947, Chiang Kai-shek formally established his provisional government in Taipei, the capital of Taiwan. In the ensuing years, the United States stepped in to defend the island against the danger of the Chinese Communists pursuing the civil war to its conclusion by seizing the island. And over the period from 1952 to 1963, excluding aid in the military assistance program, more than 1.7 billion U.S. dollars in aid was extended to Taiwan. (The military aid totalled about another $2.3 billion over the years). Both on a gross and per capita basis, this is an exceptionally high level of assistance (Fei, Ranis, and Kuo, 1979; Ho, 1978).

In the meantime, the Taiwan government carried out a variety of social and economic policies, such as extensive land-reform and industrialization programs following the line of import substitution. By about 1961, Taiwan had shifted aggressively to an export promotion program, improving the import and tariff regulations to attract foreign investment, to facilitate the purchase of needed raw materials and technology, and to encourage industrial development in the island. These policies were apparently effective. Taiwan's Gross Domestic Product (GDP) steadily grew through the 1950's and beyond. During the 20 years between 1953 and 1973, Taiwan's GDP grew over 400% and per capita GDP, more than 300%.

Considering its colonial past and war involvement, Taiwan's successful economic takeoff is undoubtedly impressive. But for students of economic development, perhaps, even more striking is the fact that Taiwan achieved this development without widening the income inequality (cf. Table 4). As indicated by Table 4, the Gini co-efficient index steadily declined from .56 in 1953 to .29 in 1973. This trend contradicts the dependency theory thesis that a large amount of foreign aid is detrimental to the income equality of the recipient nation. It is also inconsistent with the Kuznets thesis which predicts that until
per capita income reaches the level of 700 or 900 dollars, income inequality tends to widen as the economy grows.

How did Taiwan manage to do this? Scholars specializing in the study of the Taiwanese economy regard the erosion of sharp economic dualism as a major factor (cf. Fei, Ranis and Kuo, 1979; Ho, 1979, 1980; Barrett and Whyte, 1982). With massive foreign aid and strong government initiative, Taiwan made a serious effort to harness modern technology. But unlike the experience of many other countries, the modern sector in Taiwan did not remain insulated from the rest of the economy. Structural differentiation and diversification followed, as witnessed by the large number of small scale but successful factories and farms. For example, in textiles, "there are not only large factories, but also electric looms scattered in people's homes and shops in many parts of the island. The people working these looms take orders from putting-out agents, who get them from the myriads of small export agents" (Barrett and Whyte, 1982: 231).

Students of the Taiwan economy attribute this "trickling down" effect of the modern industrial factor to several factors. First, with its slogan, "Developing agriculture by virtue of industry and fostering industry by virtue of agriculture," the strategic planning adopted by the Nationalist government emphasized the balanced development of rural and industrial sectors. There was indeed a remarkable growth in agricultural production, particularly in the 50's and 60's. For example, from 1953 to 1968, agricultural production grew at a rate in excess of 5% per year (Ho, 1980: 140). Within the agricultural sector, small but independent farmers were predominant, as a result of successful land reform carried out in the 50's. Following the massive transfer of land from landowners to small peasants, tenant-farmed land declined from 44% of the total cultivated land in the 1940's to 17% by the end of 1953. Undoubtedly, this land reform contributed to an equal distribution of income.

Secondly, in the industrial sector, the "trickling down" effect was facilitated by the fact that light industries, particularly foods and textiles, predominated in the early phase of industrialization. Food and textiles, which in 1959-61 produced 29% and 17%, respectively, of the real Gross Domestic Product (at factory cost) in Taiwan, were labor-intensive and, to a large measure, carried out in small scale operations (cf. Ho, 1978, Chapter 10).
Table 4

Selected Indicators of Taiwan's Economic and Social Development

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<td>.56</td>
<td>.44*a</td>
<td>.32*b</td>
<td>.33</td>
<td>.29*c</td>
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<td>Economically Active Males 65 and over</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>28.8%d</td>
<td>49.2%</td>
<td>51.4%</td>
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Note:

*a. 1959 data
*b. 1964 data
*c. 1972 data
*d. 1970 data

Thirdly, Taiwan lacked a well-developed economic elite class whose interest was closely tied to that of foreign business. Neither did it retain the traditional rural elites who could have undermined land reform efforts. It has been argued that these circumstances, which set Taiwan apart from many currently developing nations, facilitated its effort for the diffusion of economic modernization throughout the island. Aided by its strategic switch to an aggressive export-oriented economy, the island achieved not only economy-wide modernization but relative income equality in a short period of time.
The economic situation appears to have had a beneficial effect on the aged in Taiwan, who constitute about 6% of the total population. Both quantitative and qualitative data suggest that the Taiwanese aged are taking part in the economic modernization as active participants and recipients of benefits. For example, the life expectancy in Taiwan is one of the highest among developing countries, reaching the levels of advanced nations (i.e., 68.8 for males and 74.1 for females). The mortality rates of the aged (which reflect the status of their general health) are comparable to those in the Western countries. (The male rates are 22.87 per 1000 for those 60-64 and 29.32 for those 65-69, while the female rates are 14.23 and 18.45, respectively). At the same time, Taiwanese elderly are actively participating in productive activities. In 1979, the labor force participation rates for males aged over 65 was 51.4%. This rate is higher than the equivalent figures of countries on a similar level of development, such as Korea (35%), Jordan (25%), and Uruguay (21%) (Directorate General of Budget, Accounting, and Statistics, The Republic of China, 1979; ILO 1979). It is even more striking that, contradicting the normal trend associated with economic development which involves a shift from the dominance of agriculture to secondary and tertiary industries, in Taiwan the economically active elderly population (65 and over) increased through the 1970's.

Anthropological studies conducted in both urban and rural areas are consistent with these governmental statistics (Wolfe, 1976; Gallin, 1966; Harrell et al. eds., 1981). They describe the elderly as generally occupied and treated leniently, if not caringly, by younger people. Older men take smaller and smaller parts in the management of family affairs, especially if their sons' sons are approaching maturity. Their power generally declines as their physical capability diminishes. And yet, as anthropologist Harrell observes, "Old people are generally given an opportunity to help out whenever they can. (Their) skills or strength rarely go to waste" (1981: 210). Women appear to fare even better than men. The loss of power is less regretted by them, because they generally do not have much of it to begin with. Unless women are actually disabled, they can be quite useful:

If she can no longer perform heavy domestic tasks, such as doing the family laundry or hauling water, she can still be a help around the house. She can mend, if her eyes are good; she can sweep and tidy up;
she is usually delighted to care for the grandchildren while her daughter-in-law sweats at the spring or the well (Harrell, 1981:206).

To an extent the integration of Taiwanese aged in their society can be attributed to the pattern of living arrangement. Sharing a household with one of the male sons is still the commonly practiced rule. The family-centered nature of care for the aged means that old people are always active participants in family and community affairs, and they have daily contact with younger adults and children both inside and outside the family (Harrell, 1981:199). In this context, even though public old age insurance, medical services, and housing or care facilities for the aged are rather limited, most older persons do not face hunger and illness alone. With the reasonably equal household income distribution (cf. Table 4), ample availability of gainful employment (as indicated by low unemployment rates currently at 6%), and the Confucian emphasis on filial piety, so long as the aged have children, at least their subsistence needs are generally satisfied. The lot of those elderly who lack both children and property is indeed tragic, but they are a small minority, due partly to the successful land reform carried out during the 1950's and partly to the serious effort exerted to have children, biological or adoptive, which reflect the utmost importance placed on lineage continuity in the Chinese culture (Freedman, 1958).

Another factor which accounts for the high activity rate of the aged in Taiwan may be found in the structure of its economy. As mentioned before, agriculture in the island nation is prosperous and mostly conducted in small scale operations. Since extended households are still prevalent, aged grandparents have ample opportunity to participate in the productive process (Gallin, 1966; Wolf, 1972). Nearly half of the economically active elderly are currently employed in the primary sector. Their importance as a rural labor force has recently increased as the young work force is being absorbed into the urban centers (Tsai, 1978). In urban areas, the elderly Taiwanese can also find an opportunity for productive work. A large portion of factories and shops are small-scale enterprises, which are often run by extended families. In these establishments, older persons routinely participate in work, so long as they are physically able. The Census reports that 22% and 8% of the working aged males are in the commercial and manufacturing sectors, respectively.
Another structural characteristic of Taiwan economic development is the growing labor force participation rate of women. The ratio of male to female manufacturing workers declined from 2.49 in 1954 to 1.13 in 1971 (Ho, 1978: 211). As a result, a large proportion of adult women, including those of child-bearing and rearing age, are in the labor force. For instance, the participation rate is 46.9% for those women aged 25 through 34. This situation provides ample opportunities for older relatives to assist in the household chores. Since child-care centers are of extremely limited supply, married working women mostly rely heavily on the help of older relatives (cf. Hwa, 1976; Osaka, 1978).

In summary, the aged in Taiwan appear to be actively involved in the process of economic development, in spite of the pessimistic predictions of modernization and dependency theories. The elderly's power and status may have declined somewhat, but the labor force participation of aged males is respectably high, currently at 51.4%. Moreover, when "the partaking in the benefits" and "indirect contribution (as in the assistance in domestic chores)" are considered variant forms of participation in economic development, the Taiwanese elderly's involvement is substantial.

Conclusion

The most critical message arising out of the present analysis is that not only will the size of the aged population in developing nations increase in an absolute term, but also for some decades the number of elderly suffering from poverty is expected to rise. The projection that by the year 2000, the number of old persons in the Third World will reach the level of 350 million must be interpreted in the light of the forecast that "while poverty could be reduced to low levels in the middle income countries by the end of this century, it will continue to plague the low income countries" (World Bank, 1978: 34). Poverty in rural areas, where a large majority of the aged reside, deserves special attention. For, as indicated by the experiences of India, Bangladesh, and their neighbors, economic progress and technological innovations may be ineffective in reducing the magnitude of rural poverty.

Reduction of poverty and improvements in agriculture are among the major objectives of the current efforts.
in international cooperation and aid, but further knowledge is needed for their effective implementation.

Numerous reports and recommendations have been written, emphasizing the merits of labor intensive technology, community development approach, agricultural innovations, population control and so forth. But detailed and practical knowledge about the means to increase economic equality in general as well as to reduce poverty among the aged is still inadequate. The argument of the dependency theorists implies that the formula for channeling foreign aid and investment to bring about economic equality either has been nonexistent or has not been applied. This view is in accordance with the observations of the World Bank Group that "so little is known about the interaction of economic and social structures with developmental policies, which produces particular patterns of economic growth with different effects on the poor" (World Bank, 1978: 33). Furthermore, as indicated in this paper, even scantier knowledge is available about the ways to integrate older persons in the developmental process. As recommended by the United Nations World Assembly on Aging position papers and the report of the World Assembly on Aging Non-Governmental Forum, further research is urgently needed in this area.

The third conclusion of this report is drawn from the Taiwanese experience. Despite its colonial past and recent involvement with a civil war, the island nation successfully took off economically sometime in the 60's and achieved this feat without sacrificing equality in income distribution. It has also managed to spread the benefits of economic growth to the aged population. Instead of instituting extensive public welfare programs, Taiwan has achieved this success primarily by involving older persons in agriculture and industrial operations. Prevalence of extended household, family-owned factories and farms, prosperous agriculture, and the literacy and good health of older persons all contributed to their active involvement.

The Taiwan experience appears to indicate one viable direction that currently developing nations may follow. Admittedly, the circumstances of each country vary enormously. As yet, the need to economize resources is shared by all. In this regard, the creation of an economic and social structure that would encourage the greater involvement of older persons in the productive process appears indispensable. As is widely known, in non-industrialized societies, many able-bodied aged did (and do) continue to work. The developmental
policy must use this legacy as well as it possibly can and make a full effort to maintain the level of their productive involvement throughout the process of economic development.
1. Even though the development path of a nation does not precisely follow Kuznets' prediction, several studies have confirmed the general empirical validity of this model. For example, in a cross-sectional study of 43 less-developed countries, Adelman and Morris (1973) found that on the average, for the long part of the development process — corresponding to the transition from the state of development of sub-Sahara Africa to the level achieved in the least advanced Latin American countries — the primary effect of economic development on income distribution is to decrease both the absolute and relative incomes of the poor.

2. All the dollars in this paper represent U.S. dollars.

3. Similarly, modernization theorists point out the positive influence of the developed country on the latecomers. For instance, they stress the transfer of advanced technology, modern national organization forms, labor habits complementary to industrial production, and modern attitudes toward the self, the family and the society which facilitates economic development (Moore and Feldman, 1960). This approach implies that a country which is penetrated by direct foreign investment or subsidiaries of modern transnational corporations should develop more than a country that is not so penetrated. Similarly, foreign aid which brings technical assistance and advice regarding fiscal and development policies should also facilitate economic growth.

4. The following passages include only a skeletal account of the issue. For fuller discussion of economic development in Taiwan, see Chinn (1979), Fei et al (1979), Ho (1979, 1980), and Barrett and Whyte (1982).

5. One must distinguish between the ethical ideal of respect for the aged and the reality experienced by older people. And yet, the forces of public opinion in a stable community where neighbors know each other make life difficult for any young person who chooses to defy convention by neglecting his or her parents (Ikels, 1975).

6. The examination of the Taiwan experience in light of these theories cannot be very vigorous, because of certain theoretical and methodological difficulties involved: (1) the theories do not specify
quantitatively the extent of change in the aged's status, and (2) even if they did, it would be impossible to obtain strictly reliable, comprehensible and comparable data on the aged in Taiwan before and after the economic takeoff.

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TOWARD A COMPARATIVE PERSPECTIVE ON FILIAL RESPONSE TO AGING POPULATIONS

ROBERT L. RUBINSTEIN AND PAULINE T. JOHNSEN

The demographic trends that have dramatically increased individual longevity and the proportions of older persons in the populations of developed nations are fast becoming worldwide phenomena. Population aging, which occurred over a period of many decades in developed nations, is taking place more rapidly in developing nations, with the probable result that the Third World's share of people who are 60 years or older will increase from 52% in 1975 to 61% in the year 2000 and 72% in the year 2025 (Nusberg 1982). When viewed against the tremendous competing pressures on existing resources in developing areas, the phenomenon of worldwide aging can be expected to have profound effects on the structure and values of the world's societies over the next 50 years.

The general aim of this paper is to direct attention to one ramification of these demographic trends: the responses of kin (and particularly adult children) to increasingly old and dependent populations. The specific intention is to stimulate the comparative study of family caregiving through intensive cross-cultural investigation of intergenerational relations in aging families wherever ethnographers find them. To guide such efforts, we attempt to conceptualise filial response to aging populations as a dynamic process that is
likely to be bound up with various ongoing processes of cultural change and/or maintenance.

We first review some demographic, gerontological, and conceptual considerations relevant to a cross-cultural perspective on family care of the elderly; in so doing, we reject certain contrast conceptions customarily employed in discussions of families and sociocultural change. Second, we describe one Third World society and enumerate various substantive dimensions that affect caregiving to the elderly in that specific setting. Third, we outline and discuss some issues in caregiving that can be expected to have general application to societies at any point along the modernization continuum. We conclude with a summary statement suggesting avenues for further research.

BACKGROUND

In Western societies, the numerical and proportionate increases of elderly people (and the shifting age structure within such populations) are highly visible and well documented (Brotman 1982, Gibson 1982), and the importance of studying the responses of families to the needs of their aging members has been recognized (Tress 1977). Anticipating the needs generated by the incipient development of large populations of elderly in Third World societies is equally urgent though less conspicuous.

Other articles in this volume discuss the probability that -- because of worldwide conditions of reduced mortality and increased life expectancy -- much of the Third World will soon experience a dramatic rise in the numbers and percentages of elderly persons. As a result, societies at all stages in the process of modernization confront a developmental situation that is fundamentally new in human history. Continuing increases in the number of older people have the manifest effect of ushering them into a period of life that had once been reserved for a few, and one for which many may be inadequately prepared. As important, but less often noticed, is the fact that an equally large number of middle-aged family members are facing circumstances for which they have been provided with few models or little instruction: reaching full maturity or even early old age with their elderly relatives alive and in need of regular, long-term care.

In industrialized societies with large elderly populations, the burden that falls on family caregivers
may be considerable (Gibson 1982; Jury and Jury 1976; Nace 1981; Rubin 1980). Only a small minority of older people reside in institutions (about 5% of those 65 and older in the U.S.; Lawton 1979), and they are outnumbered (in a 2-to-1 ratio in the U.S.) by equally disabled old people living in the community and being cared for by their families (Brody, S., et al. 1978; U.S. General Accounting Office 1977). Those elderly who do reside in nursing homes are greatly impaired for the most part (having been institutionalized only as a last resort) or without families to care for them (Brody, E. 1966, 1981; Goldfarb 1965; Group for the Advancement of Psychiatry 1965; Townsend 1965).

Although a commonly repeated belief holds that families try to "dump" their elderly members through institutionalization, the falsity of this myth has been thoroughly documented (Brody, E. 1981; Shanas 1979a, 1979b). The fact of the matter is that, in the West, dependency needs of the elderly are met by family members (Brody, E. 1979; Cicirelli 1981; Schorr 1980; Shanas et al. 1968). Governmental services, where available, are intended to supplement care provided by family members or to meet the needs of older people without a proximate child (Moroney 1976).

In the Third World, the provision of formal services is less frequent than in most industrialized nations; consequently, the reliance of the elderly on their families is even greater. In Costa Rica, for example, most older persons reside with family members (Aging International 1981:5). In Nigeria, "when the elderly are no longer able to continue work, the primary resource on which they can rely is their family" (p. 6). This situation may be typical of Third World countries, in which the resources of industrialised nations are lacking. In India, for example, "the elderly...typically live with a son and his family, who are themselves poor" (ibid.).

Thus, although determining "what is the proper 'mix' of public and family responsibility is a matter of policy debate everywhere" (Gibson 1980:11), families indeed must provide most of the care needed by elderly members. The difficulties that may arise in doing so are legion, ranging from social and psychological to logistic and financial.

Although caregiving to the elderly is a phenomenon that does not yet exist empirically on a large scale in some societies, it must be remembered that "family statuses impose obligations and confer rights on their
members everywhere" (Nydegger 1983:30). The category of "old person" is recognized universally, as is the prescription of some mutual responsibility among gener-
ations (Cowgill and Holmes 1972:4-5). Nevertheless, the actual workings out of such relations are likely to be subject to considerable variation, ranging from the seemingly harmonious intergenerational relations of Samoans (Holmes 1972) to the extremes of competition and conflict reported in various parts of Africa (LeVine 1965; Shelton 1972; Spencer 1965) as well as in Colonial New England (Fischer 1978) and parts of Western Europe (Shorter 1975) in the 17th and 18th centuries. Growing recognition of the sources of conflict in family life (Skolnick 1975) cautions against expectations of perfect tranquility in the relations between mature generations (Hagestad 1981).

The social issues pertinent to filial caregiving are likely to be complex, involving not only distinctive cultural conceptions of aging -- reflecting the "cultural patterning of the human life cycle" (Clark 1967:55) -- but also the matrix of intergenerational relations in which they are embedded and the society-specific structural forms for achieving the rewards that a society holds out to some of its members. Furthermore, issues of filial caregiving may vary over time. If a dependency problem is emergent or incipient, the development of some normative patterns of behavior (or at least of some typical responses to caregiving needs) will depend on particular social configurations and the resource bases available at the time, as well as on emerging social opinion about what appropriate caregiving behavior is or should be.

The specific issues we address derive from these general considerations. They include some of the most basic questions facing any community with dependent elderly members: what signals dependency, who has primary responsibility for giving help to an elder, why such individuals have this responsibility, what "responsibility" and "help" consist of within a given cultural setting, and what accommodations occur as filial responsibility is discharged in the context of other obligations.

As anthropologists, we propose an approach to the study of filial behavior that transcends the debate (which anthropological research in an evolutionary vein may have fueled) concerning "nuclear" and "extended" families and their relative functionality in urban/industrial and in traditional or primitive societies. Without attempting to recount the history of that
debate (which is reviewed in detail in Harris 1969), we note two ways in which a preoccupation with ideal types of family structure may have hindered an empirically based comparative study of filial caregiving (as Goode (1963) contends that it did the comparative study of economic control and authority over mate selection).

First, the emphasis of structural-functional theory on the "fit" between the "structurally isolated nuclear family" and modern industrialized societies (Parsons 1949; Parsons and Bales 1955) spurred many sociologists and gerontologists to vindicate urban families from the implication that they are alienated from their elderly members. This effort produced impressive evidence of frequent visiting and exchanges between adult children and their parents (summarized in Nye and Berardo 1973:405ff.; see Rosow 1967; Shanas 1960, 1961, 1979a; Shanas et al. 1968; Streib 1958; Sussman 1965, 1976), but it led to the adoption of yet another ideal type -- the "modified extended family" (Litwak 1960:9) -- to characterize urban families in developed countries in the West. According to Firth et al. (1970:456), proponents of this revisionist view of family structure lost sight of the distinction between an extended-kin group (having a central locus of authority) and extended-kin relations (with authority residing in separate nuclear households). Calls were made (Back 1965:327; Rosenmayr 1970:382) for empirical investigation of the gradations between the maximally contrastive ideal types represented by nuclear and extended families. Yet little was done by structural-functionalists to describe how members of nuclear families exercise wider kinship options, given the "optional quality of the expectation system" (Parsons 1965:34), or by their critics to show how the extended family is (or came to be) "modified" in modern industrialized societies (see Rosenmayr 1970:380). Additionally, this dichotomizing tendency resulted in little information about the individual choices that go into creating or maintaining proximity or distance between generations (Harris 1969:205) or about the emotional content and meaning of cross-generational exchanges (e.g., analogous to the rich description of kinship behavior among black Americans by Stack 1974).

The second way in which an ideal-typical approach to family structure deflected attention from empirical description is associated with the direct application of modernization theory to gerontology. This stream of research, although cross-cultural, was designed to formulate generalizations as to those aspects of aging that are universal and those that are relative
to economic, social, and cultural differences (Burgess 1960; Cowgill and Holmes 1972; Cowgill 1974). According to classical modernization theory, the elderly once enjoyed a favorable position in all historical societies, but this "Golden Age" of high status for older persons was undermined by the Industrial Revolution, particularly by the factory system.

Following the tradition begun by Simmons (1945), of sifting through ethnographic accounts and cataloging the customs and practices of primitive societies with regard to their elderly members, modernization theorists continue to be concerned with macrosocial issues, particularly the status and role of the elderly (Cottrell 1960; McArdle and Yeracaris 1981; Maxwell and Silverman 1970; Palmore and Manton 1974; Press and McKool 1972). A consistent finding of their work (e.g., Cowgill and Holmes 1972; McArdle and Yeracaris 1981) is that the presence of the extended family is correlated with high status accorded, society-wide, to the elderly. This use of the ideal-typical contrast between extended and nuclear families as a sociological index typically ignores the (positive or negative) contributions of adult children and other family members to the status of their own elderly, thus obscuring crucial effects that may be experienced at the small-group, family, and individual levels.

In this paper we suggest that the task of putting the study of filial response to worldwide aging on an empirical and cross-cultural basis must begin with a new approach to the old questions surrounding families and sociocultural change. Bendix (1967:73) observes that contrast conceptions are indispensable as a first orientation but should not be mistaken for analysis. In line with his approach to changes in social structure brought about by modernization, we propose that filial response to aging populations be analyzed in terms of a set of "issues over which individuals and groups contend in an effort to realize their ideas and maximize their chances," optimally achieving "a measure of accommodation or compromise between conflicting imperatives" (Bendix 1967:74-75).

Given the imminent increases in the population of the elderly, large numbers of adult children around the world can expect to experience the necessity of reaching such accommodations between the filial imperative and other imperatives -- especially those associated with what, following Scanzoni (1970), we call the "opportunity structure." Although we do not wish to lend support to a stereotype that pictures the
old in general as dependent, the fact of dependency becomes a reality for more and more families every day. We focus on that critical juncture, wherever and whenever it may occur. Our concern is to identify, in diverse cultural settings, those structural and interactional factors that impinge on family members (irrespective of individual personalities) as they address this challenge in the absence of clear prescriptions for behavior.

To anchor our discussion of issues surrounding caregiving in reality rather than in vacuous abstractions, we focus next on intergenerational family relations, aging, and modernization in one Third World society, that of Malo Island, Vanuatu (formerly New Hebrides). This case presentation not only documents a specific situation and highlights the issues over which people are likely to contend, but it also provides a lens through which to view more general issues in caregiving, which we outline in a later section.

**FILIAL CAREGIVING: A CASE PRESENTATION**

Malo Island, located in northern Vanuatu, is home to more than 2300 persons, most of whom are ethnically Maloese. Indigenous Malo culture follows a more general Melanesian pattern (Chowning 1973) featuring relatively small local settlements and a garden economy based on slash-and-burn production of yam, taro, and other root crops, as well as fishing and pig raising.

**Historical Background**

Formerly, the raising and interisland trading of pigs were associated with a central institution of traditional life on Malo and throughout northern Vanuatu: a hierarchically ranked system of eating classes for men (called the Sumbuea on Malo). Among its purposes were the social differentiation of men from women, the social grading of men, and the expression of masculine forms of social power (Rubinstein 1978, 1981). Access to the classes was attained through the display, killing, and distribution of progressively greater numbers of tusked pigs. Although the system is moribund on Malo, certain notions associated with it continue to influence present-day society, not only as a specific body of knowledge but also as "custom" -- a culturally significant counterpoint and/or contrast to modernity as a lifestyle and general life orientation.
Malo has changed profoundly under the impact of colonialism, external economic domination, missionization, and modernization. Even before 1900, the deleterious effects of introduced disease, land alienation, and overseas labor were strongly felt. The establishment of a Presbyterian mission on Malo in about 1890 led to the local introduction of a variety of Western social and technological forms (schools, Western medicine, four-square houses, clothing, Western dining utensils) and, increasingly, notions of Western morality (see below). A joint Anglo-French government, the Condominium of the New Hebrides, was set up in 1914, primarily to prevent either colonial power from gaining absolute control while ensuring to each power the continued economic domination of its own subjects. Independent since 1980, Vanuatu has taken a place at the forefront of the nonaligned movement in the Pacific. The arrival of independence has added a new experiential and temporal point of reference.

The Changing Image of the Family

The people of Malo conceive of their history as consisting broadly of three eras: a "traditional" time when the pig-killing system and its ethics were in full swing; a "transitional" period (c. 1910-1945), following the arrival of the mission, during which the depopulation and social chaos of the early period were gradually terminated by the good works of alien and native pastors; and the "modern" (post-World War II) period, characterized by a triumph of mission ideals, entry into the modern world, the establishment of a universal system of education, the rise of political factions and nationalism, the growth of cash-crop farming and cash enterprises (until independence, under alien domination), population growth, and the increased availability and effectiveness of medical care.

In the modern ethnohistorical version of this overgeneralized scheme, each of these periods is associated with distinctive conceptualizations of "personhood" and family relations. These are important for a variety of reasons but mostly because they are used by many Malo individuals to evaluate, both in public and in private, current intrafamilial and interpersonal relations. People commonly compare who they are and what they do now with their ideas of what people did and who they were "before."

126
The traditional period is now viewed by many as a "hard" time during which self-interest and superstition ruled, and people lived in ignorance among "hit men," raiding, and warfare. Social, economic, and political life was dominated by the ritual complex of the Sumbuea, by means of which individual men wielded power corresponding to their progress through some 15 ranked eating classes.

If a man went far enough through the system, he approached the status of a living ancestor, a man so imbued with power through his connection with the supernatural that he had begun to slough off his earthly nature. Such men were said to be "frightening" and could easily intimidate others....Not only was the power of these select individuals made apparent through their manipulation of spiritual revenge, but they also had a monopoly on wealth objects. They were wheelers and dealers in pigs....Moreover, such big-men controlled access to women. Among this elite, polygamy was the rule....(They) used these wives to attract male followers to their homesteads (Rubinstein 1981:139-140).

A younger man who aspired to work his way through the eating classes had need of a succession of mature patrons or sponsors. The system, however, could fuel intergenerational conflict, goading aggressive juniors to try to supplant their elders rather than wait for power to be surrendered to them.

Family relations are said by some to have been characterized by violence and highhandedness, although the overall accomplishments of the past are respected by many. Marriages, for example, were often negotiated by one man agreeing to "give" his infant or as-yet-unborn daughter as a wife to another man (or that man's son) in exchange for pigs. Life under the Sumbuea system is described as brutal, and accounts of now elderly persons bear this out. One elderly informant recalled being thrown into her mother's grave to be buried with her, and being rescued by mission converts. Another reported that his grandmother, as a very young girl, had had her foot broken by a man to whom she was married, to prevent her running away. The notion of caring for another person in the absence of motives of self-interest is perceived by many today as uncommon in this traditional period. Thus, the care given to a frail person of any age is remembered as a rare event, particularly since life tended to be short.
and since assistance depended on the social and political power of the individual to compel it (a power that typically was lacking among the decrepit).

The arrival and growing influence of the mission at a time of depopulation, disease, and social chaos is said to have led to the downfall of the pig-killing system; for many Malo natives, it was replaced by a new family order established under the instruction of the mission and the influence of Christian morality. Notions of "caring for" (mataci) became ideologically prominent. Former adherents of the pig-killing system "threw down" their association and joined the mission, as did orphans who were taken by or given to the mission to be cared for. The core of the current modernist faction on Malo traces its origins to these mission activities. Families tended to become nuclear as polygyny disappeared under the influence of Christianity. Many mission followers resided at Avunitare, the main village, although their gardens and lands were elsewhere. This village congregation became a community, and values of care and respect in family and community life were fostered. The increase in the number of older people is said to have begun at this point. Care is perceived as having been provided for the elderly by the mission community at large, which saw the support of those in need as "good works" in the Christian sense.

In the most recent period, ideals of community and family care and respect have continued to be important but are threatened by specific material needs; i.e., the demands for land in a cash-cropping economy, and the creation of strongly marked political factions. For instance, care and aid should be provided unquestioningly on a daily basis; people should perform acts of self-sacrifice; and children and other potential caregivers should set aside their own interests to care for their elders. Nonetheless, conflicting pressures (which we discuss below) may tend to strain these expectations and the "caring" quality of family relations.

The Current Situation of the Elderly

In 1975 about six or seven percent of the 1550 native Maloese were 60 years or older (Dickie 1979) and would most probably be described as an "old man" or an "old woman." Of these 100-some individuals, about 10 were generally homebound and in need of day-to-day help with most activities (including cooking, cleaning, washing clothes, and personal care); another 10 or
so were in need of regular help but were not homebound. To gain perspective on the situations of these people, it is necessary to examine some Maloese ideas regarding the person.

Several attributes distinguish the "full" or "complete" person for the Maloese, and these apply to many older persons as well as to middle-aged individuals. In general, such attributes relate to being active, planning for future events, and carrying out work. Physical strength, bodily vitality, and the ability to walk are important criteria of "completeness," as is the mastery of one's will. The capacity to live productively and contribute to the community is respected. Both men and women desire to accumulate knowledge over the life course, and that store of knowledge is seen as an essential personal attribute. In addition, an individual must maintain or acquire a place, a concept that has meaning above and beyond mere location. Typically, a man inherits the place of his father, while a woman acquires that of her husband; as the Maloese say, "Men stay on the land and women leave it." These various attributes of personhood can apply unequally over the life span. For older persons, a deficit in one domain (e.g., physical vitality) may be offset by superiority in another (e.g., knowledge).

Kinship roles that can be played by the elderly include grandparent (to one's daughters' children) and, for men, elder brother (a man and his son's son are "elder brother" and "younger brother," respectively). Formal community roles include pastor and elder in the Church, as well as "Chief," a government-sanctioned role for an influential and knowledgeable older man. More informally, most older persons of both sexes fulfill the role of "knowledgeable person," from time to time if not continuously. Several older men who lack formal roles play the informal role of "influential person": e.g., one older man was married to the sister of the native pastor but maintained significant contacts in the traditionalist (nonmission) camp. Finally, the role of "productive person" is relished. For example, the ability to continue laboring hard in family and community work, even with diminished capability, commands respect.

In general, dependency needs in old age are signaled by declining physical strength and mobility. The line between those who are considered to function passably and those who are not is reflected in the distinction between persons who continue to attend
public events, such as weddings and funerals, and those who are too "sick" to attend.

The greatest social integration of Maloese elderly occurs within the family context. Responsibility for the care of older persons falls primarily to the immediate family (spouse, co-resident sons and daughters-in-law) and proximate (but not co-resident) daughters. "Help" consists of a wide range of activities extending from personal care and feeding of the decrepit or senile elderly to emotional support and work-pooling assistance to the generally well elderly.

No list of role opportunities can do justice either to the richness of individual lives or to the social stresses that may occur in conjunction with the performance of such roles. Role concepts are energized by ongoing social and political disputes, which typically involve active traditionalists in contention with Christians on the religious level and with modernists in the political sphere. Moreover, these disputes are cross-cut, on the individual and/or small-group level, by differences over ownership of productive land (increasingly necessary for coconut planting and cattle raising in a cash economy). That is, individuals of disparate political and religious orientations may be allied against persons of similar outlook. This unintended system of checks and balances tends to increase the social importance of old people: older men provide living anchors to land; older persons in general have greater knowledge of traditions and customs, enabling them to argue more forcefully about land ownership; older persons have more personal experience with events that determine land ownership. Older persons can continue in a productive capacity within each homestead, even without the ability to walk far afield, in tasks such as food preparation, child care and/or supervision, event planning, and politicking. Thus, while older persons (men, especially) have important roles at the top of the political and religious organization, they also have important roles in counterbalancing local groups. Similarly, the arrival of independence has created a new balance between the older generation and that of the middle-aged, the one most familiar with the practices of government introduced since independence.

It is within this framework that we must approach the meaning of "responsibility for caring for one's elders" for the people of Malo. First, it entails generally strong emotional ties within localized family groups. Second, it involves the profound sense of
obedience and respect that this male-oriented culture accords to "fathers," together with the preponderance of social and political power given over to individual fathers. Third, it encompasses a conceptualization of the "work" associated with the mother's role in raising a child. All of these are linked to caregiving by overarching notions of exchange and return that bind relationships. Further, "responsibility" consists of mutual support and sharing within the "family," together with more abstract transformations of families into local and island communities. Moreover, individual acts of caregiving derive their meaning not only from the history of a specific relationship but also from ethnohistorical factors: "who we once were" and "who we are now" are notions that condition and inform many caregiving actions.

At the most abstract level, responsibility is contrasted with self-interest and with situational priorities, among them the need for cash and for land and the desire for development and improvement programs sketched out by political factions. The concept of "self-interest" was glossed by one informant as follows: "I, mine, on my land; and them, theirs, on their land." Expressions of self-interest are often looked on by the community as somewhat shameful and selfish, but the power of the community to enforce its standards is by no means assured.

It is considered a happy occurrence when self-interest and responsibility overlap. For example, elders involved in land disputes can disguise self-interest under the morally superior "responsibility." Elders argue to support their own and their sons' claims to land parcels; without the participation of the elders in litigation, the position of the juniors would be less secure. The juniors therefore benefit from whatever support they give to elders who argue on their behalf. Mutuality of interests is often mentioned with satisfaction.

The least satisfactory outcomes occur when self-interest and responsibility are at odds. Although land disputes may aid the position of one elder in the eyes of his/her children, they may ultimately have the consequence of forcing some other elder from a piece of land. Thus, when lineal responsibility is stressed, community responsibility may fall victim to self-interest.

Malo residents are acutely aware of the effects of the changing opportunity structure on notions of
responsibility to elders and others. Various political and land disputes are considered "new" -- and "powerful" -- social issues that people don't really know how to resolve.

Ideal and Real Family Relations

The ideology of "love" (boimboia) and "caring for" (mataci) should ideally be the basis of care and respect for older family members. Both sons and daughter-in-law should provide care for older individuals, who should be securely located in their "place." A typical place -- a named land -- might be inhabited by an older married couple in their own house complex, by middle-aged sons and their families in separate house complexes close by, and by unmarried or recently married grandsons in single houses. Although family members commonly keep separate gardens, they may work together in the care of each others' plots.

In reality, these ideas are difficult to carry out, and breakdowns occasionally result. One type of breakdown may occur when lineal descendants do not fulfill their roles: e.g., when disputes erupt between parents and child, when expectations are not clearly articulated, when men leave their father's land and do not return, when daughters do not return to visit, when parents are forced to take sides in disputes between children, or when the "self-interest" of a child impedes caregiving. A second type of breakdown is threatened when collateral relatives can no longer support one another. We briefly examine a concrete example of the former and a potential example of the latter.

Filial behavior. -- Matavoro, a man in his seventies, has been known by the nickname "Bad Leg" since an infected leg was amputated and replaced by a wooden leg during his middle years. Although he has two children, he is one of very few Maloese individuals who live alone. Matavoro can in fact make do for himself for long periods of time. He collects rain in a rusting barrel at the back of his house. Several gardens within a few hundred feet of his house provide most of his food, which he plants, weeds, harvests, and carries home by himself. Neighbors help by bringing small purchases from the closest store. His best friend, an older man, lives nearby and can visit on a regular basis.
Despite his physical strength and self-sufficiency, Natavoro's life is eased considerably by his main support -- his daughter, who is about 25 years old. She lives with her husband and her son about a quarter of a mile away, where she now "belongs" to the land of her husband. She spends most of her time there, gardening primarily on her husband's land. She retains important ties to the land of her birth (her father's land), however, and continues to garden there as well. In so doing, she helps her father with garden activities, with carrying firewood and produce, and with emotional support. Moreover, she and her husband help him with his cash labor -- cutting coconuts to make copra, which is sold for cash.

One focus of the tie between Natavoro and his daughter is her son. In Malo custom the right of a woman's son to use her natal land (her father's land) must be secured through a payment to the child's mother's brother or mother's father, and such a tie can be further "cemented" through a variety of means. One of these, a naming ceremony, was given by Natavoro for his daughter's son, so as to acknowledge publicly his daughter's son's ties to his own land. Such a tie permits Natavoro to continue to receive aid from his daughter's family and to plan for further help if the need should arise. Yet the support given by his daughter to Natavoro is, and must remain, secondary. Her place is with her husband; it should be up to Natavoro's son's wife to provide care.

In fact, Natavoro also has a son; he lives in a large town on a nearby island but rarely visits his father, making the interisland boat trip only a few times a year. He is fully involved in interethnic town life, having married a non-Malo woman and taken a job to support his family. Natavoro's son's son was raised in the town and has not learned to speak the Malo language, a fact that especially irks Natavoro. Although relations between Natavoro and his son are cordial when they are together, they can be described as "cool." Ideally, Natavoro's only son should be living and working gardens "on the land" near him, and, in time, taking over the active management of the land. Since the son has chosen a path that precludes him from lending day-to-day support to his aging father, Natavoro has gone out of his way to strengthen his ties to his daughter, his in-laws, and his daughter's son -- individuals who reside close by and who have been helpful to him. The precise nature of the dispute between Natavoro and his son is unclear. In 1983,
Matavoro voiced numerous complaints about his son's failures to aid him properly.

**Collateral behavior.** -- The case of Vuonducu, a woman in her late sixties, is more typical of the provision of care to older persons on Malo. Vuonducu was married as a young woman and had four children; after the death of her husband, she remarried and now resides with her second husband on his land. (Multiple marriages are common among Malo women in their middle and late years.)

Vuonducu is a friendly and thoughtful woman who remains active in home chores. She is beginning to "slow down," however, and has trouble with heavy work. Although her husband helps her the most on a day-to-day basis, she receives considerable aid from her three sons. The eldest is divorced, works in a town on a nearby island, and returns to visit Malo monthly. Vuonducu's two younger sons are both married and live on Malo, and members of these families help her with gardening. The sons together paid for and built a new-style house (with concrete floor and corrugated tin walls in contrast to the traditional dirt floor and bamboo walls) for their mother and her husband and paid for an "open house" upon its completion.

The current burden of providing help is minimal, primarily because the manpower (in the form of sons and daughters-in-law) is present. Relations are close and caring. In addition, Vuonducu herself is the only survivor of a set of siblings that included three sisters and a brother. Her older sister had eight children who survived into adulthood, seven of them have children, a total of 44 grandchildren, and numerous great-grandchildren. Another sister had four children. The 11 children of Vuonducu's sisters stand as "children" to her (in the Malo kinship system one's mother's sister's children are one's siblings).

Relations between Vuonducu and her older sister's children are generally close; they all live near one another and are members of the same political faction. They participate together and work closely in weddings, funerals, and other public events. Relational rules are respected among the sets of cousins; thus Vuonducu's sister's daughter's daughter shows special respect to Vuonducu's son (since they are classed as siblings). These children, too, actively contribute to the support and aid of Vuonducu, whom they honor as a close relative of their mother. They may see her on a day-to-day or week-to-week basis.
However, there is considerable tension within the family concerning caregiving. One of Vuonducu's sisters' daughters' (i.e., Vuonducu's "daughter") referred to one of Vuonducu's sons as a "bad man" because, she felt, he failed to aid his mother consistently. Vuonducu complained of the loneliness she felt at times and mentioned that certain of her "daughters" (i.e., sister's daughters) were negligent in helping and rarely came to visit.

The situation is also different for the children of Vuonducu's other sister. She is married to a man who lived a considerable distance from Vuonducu and who is a member of the other political function. Although familial ties are formally expressed (proper kin terms are used when meeting, for example), these children have little to do with Vuonducu, spending most of their time with their own neighbors and co-factionists.

While the needs of Vuonducu are being and will continue to be met, the particular demographic and political situation engenders a number of uncertainties about the future. We raise the following questions as matters for empirical investigation, not as issues about which we have preconceived notions:

-- To what extent can Vuonducu's own sons, now in their forties, rely on support from their own children in old age?

-- Vuonducu's children have a relationship of mutuality and good feeling with her older sister's children. Will the mutuality continue after Vuonducu's death?

-- The eight children of Vuonducu's older sister range between the ages of about 30 and 60 (a situation which is not uncommon). Will their children be in a position to provide them with help?

The island has a finite amount of land and the population growth is substantial. Success and opportunity increasingly may be defined in terms of goods and lifestyles available in the cities, where more and more Maloese undoubtedly will choose to live. The effects of this on caregiving may be profound.

Political factionalism operates against mutuality, as we have seen. Although surface relations among political opponents may be proper, they disguise consid-
enable mistrust. Such barriers may operate to limit the size of a potential sphere of caregivers. With population growth, conflict over land can be expected between neighbors, who generally are siblings, cousins, or close relatives. Serious land disputes currently disrupt or endanger the good feeling required for relations outside the land-dispute arena.

Given modernization and changing opportunity structures, individuals will be forced to make hard decisions about the amount of time and resources they must put into activities at home, including caregiving. Will the inner quality of intergenerational relations continue to be characterized by generally supportive caring, or will it change as the elderly population increases and as competition for resources becomes more marked?

**FILIAL CAREGIVING: THE CENTRAL ISSUES**

In an effort to remove the dynamics of filial caregiving from the mists of abstraction to the open stage of observable human interaction, we have examined the case of a Third World society and have identified some structural and demographic conditions that might have implications for filial caregiving and the relations between mature generations.

Here we briefly note the inadequacy of the dominant theories in family and modernization studies to account for conditions on Halo, and then propose three organizing categories under which to view the dynamics of filial caregiving cross-culturally.

First we note that, although nuclearization of the household unit has occurred, it is not a crucial issue here. Rather than a uniform family structure, we see a variety of family situations, each enmeshed in wider social processes that mingle kinship considerations with migration, factionalism, changing societal patterns of parental and filial authority, etc., with the result that individuals may experience several types of family patterns and relationships across different stages of the life cycle. In short, aging families on Halo do not emerge as the diametric opposites of those in the industrialized West, as structural-functionalist arguments would have it.

A second observation is that, in traditional times on Halo, an entity corresponding to what modernization theorists call "high status of the elderly"
could be identified (at least among some powerful men) without necessarily including the notion of "filial concern -- in the modern sense of long-term interaction with an affective component at its base.

These observations lead us to suggest that filial response to aging populations he analyzed in terms of three broad sets of substantive issues -- aging, kinship, and opportunity -- that are likely to come into contention as members of aging families in any society set about to "realize their ideas and maximize their chances, however they define these" (Bendix 1967:74). We recognize the dual nature of each: that is, the structural aspect contained in ideal representations and the dynamic reality flowing from human interaction. Accordingly, we consider each set of issues from the standpoint of ideology as well as process. Here our usage corresponds to Bennett and Despres's (1960) distinction between ideology and activity and Firth's (1951:22ff.) discrimination between social structure and social organization. We acknowledge the overlap between the issues surrounding aging and intergenerational relations; but we emphasize generally held, sociocultural ideas about the nature and meaning of old age in the first instance and ongoing relations between kin of different generations in the second.

Aging as Ideology

Consideration of ideology in questions of aging and intergenerational relations is inescapable. Ideology may be expressed in the form of sayings uttered to muster support (or derision) for the elderly as a class or as represented by a particular individual. It may also consist of ethnohistorical generalizations, as it does on Bali and elsewhere. Often ideology is linked with pervasive social myths about aging and caregiving. Such myths, part of what Laslett (1965) calls the "world we have lost" syndrome, abound in the West. One of the most prevalent has to do with the treatment of the elderly "nowadays," which is said to be inferior to that in other places and at other times (Laslett 1975; Nydegger 1983; Shanas 1979a). This myth persists despite the consistent findings of gerontological research that ties between the generations in urban, industrialized societies continue to be strong, that adult children fulfill their filial responsibilities, and that the amount of care provided to the elderly by their families.
greatly exceeds that provided by the formal support system.

In a recent study of women's attitudes carried out at the Philadelphia Geriatric Center, 80% or more of elderly, middle-aged, and young-adult women agreed with the statement that "nowadays adult children do not take as much care of their elderly parents as they did in past generations" (Brody, E., et al. 1983a). A cross-national comparison of U.S. and Japanese women on the same set of attitudes (Brody, E., et al. 1983b; Tojo et al. 1983) found that Japanese women were less likely than American women to subscribe to this myth. And, contrary to conventional wisdom, beliefs that adult children should care for and stay in touch with their elderly parents were more strongly held by American than by Japanese respondents.

These findings suggest that myths may serve an important function in enforcing caregiving behavior as a social norm. Caregivers in the U.S., for example, may measure what they perceive to be their own heroic efforts to provide care against the pervasively held notion that "others" do not properly care for their elderly (Brody, E., 1981). In a similar way, older persons are thought to contrast their own experience with prevalent notions (held by old and young alike) that life is hard for the elderly in general, and they may come away feeling somewhat better for the comparison (Keith 1982; National Council on the Aging 1975).

Social myths about filial irresponsibility may mask feelings of resentment or displeasure in caregiving or an underlying but "improper" expectation of ultimate financial reward. Whereas egalitarian societies, such as that of the !Kung hunter-gatherers of the Kalahari Desert, seem to prepare individuals for unequal transactions between the generations by a lifetime of mutual dependence, generalized reciprocity, and gift-giving (Biesele and Howard 1981:92ff.), societies that place a high value on economic accumulation and self-sufficiency may provide few explicit models for imbalance in exchange. The result may be a confounding of ideologies such as that noted by Weiner (1976) among the Trobriand Islanders.

The Trobriand informants who say that they exchange for 'love' or 'generosity' are following a myth that serves in their society to hide a reality of self-interest. The anthropologist who then insists on labelling...
Aging as Process

Our concern here shifts from idealized concepts and social myths to the stuff of actual human interaction: the inner reality of what old age is in a given cultural setting, and, ultimately, the way it is worked out in specific events of caregiving. When aging is viewed dynamically as a social process or as a series of transactions over the life span, several dimensions become significant. One of these is the element of time, which of course is crucial to any relationship. Another relates to axiomatic and emergent definitions of personhood. A third concerns specific role transitions in late life. We look briefly at each of these.

Time. -- The passage of time is especially significant in relationships that involve decline and expected termination, but it is implicated in the quality of a relationship that has gone before as much as it is in one whose end is foreseen. The pre-existing cumulated relationship of the caregiver and the elder may influence a caregiving situation in a variety of interactional forms. Some aspects of a caregiving relationship may indeed be initiated prior to the commencement of need. We offer two examples here.

On Truk, in Micronesia, a man can ensure support in old age from his own children -- members of a different matrilineage -- by planting trees and cultivating gardens on his children's land. A father can also give some of his own land holdings to his children. So long as a man is alive, his children must give him products of the trees and gardens he has planted on their land; moreover, the gift of land "obligates the child (the recipient) to give a portion of the produce continually to the father" (Schneider 1961:209-210).

On Malo, the fact that men are closely associated with specific lands ensures them a place throughout their lives, but there is no clearly marked rule of "placement" for women. An older woman is associated with the place of her husband or, if he has died, with that of her sons, her husband's brothers, or other kin, who will ultimately have a certain degree of responsibility for her care in old age. The exact outcome -- the selection and negotiation with respect to the person(s) she will live with -- depends very
much on her prior relationships with those individuals and the kinds of interests and coalitions they may have developed. Caregiving therefore is closely affected by the nature of previous relations.

**Personhood.** -- Notions of what constitutes a person or a self vary from culture to culture (Geertz 1975) as well as over time, and they are at the very heart of a cross-cultural understanding of aging as a social process. Such notions can pertain to self-concept, diminished functioning, or community-held concepts of aging.

Treatment of the elderly in traditional societies is neither uniformly good nor constant despite the prevalent myth to the contrary. Glascock and Feinman (1980:207), in an analysis based on 60 nonindustrialized societies, found that "non-supportive treatment of the aged is a more frequent occurrence than supportive behavior (58%-42%)," despite the existence of an overall attitude of respect for the elderly in many of these societies (see also Glascock, this volume). Even among the Coast Salish, who in precontact times accorded special privileges to some elders and respect to all old people, young children were forbidden to call anyone "old" in his/her presence (Elmendorf 1960:431, cited in Amoss 1981) an indication that reality may have been masked by ideology.

On Nalo, as we have noted, interpersonal relationships are said to have been characterized in former times by more domestic violence and by less caring for others than at present. Recently, under the influence of "human-oriented" values espoused by missionizing sects and a governmental interest in improving the quality of life, supportive treatment of the elderly is common. This has come about, to a certain extent, in conjunction with the development of other "humanizing" notions relating to personhood and the value of personal relationships. These changing values tap into a strong native sense -- rooted in traditional culture, colonial history, and the experience of significant depopulation -- that "peace" and "caring for others" are important cultural themes. These idealized views are contingent, however, on actual relations fueled by mounting competition for land and increasing population pressure.

**Roles.** -- A third implication of viewing aging as process -- and one that is linked with both time and personhood -- is that role relationships are subject to transformation as family members age in tandem. We use the term "role" to denote not merely constancies
of behavior but the "operating norms associated with a social identity relationship" (Keesing 1970:427). That is, our usage treats social identities and statuses as elements of a formally ordered system of norms that people carry around in their heads. As such, it contrasts with the sociological view of society as a system of roles that individuals step into or out of.

A major contribution of a cross-cultural study of filial behavior would be to describe selected reciprocal role relationships as they are transformed by aging. As Nydegger (1980) points out in her synthesis of the literature on role and age transitions, the phenomenon that some gerontologists call "role loss" is better described as a role (e.g., mother) that is transformed (e.g., by the departure of children from the parental home).

In developed countries, a woman may now live more than 30 years beyond the time when her youngest child leaves home (Peace 1981:31). During that time she also is likely to experience the role transitions associated with her husband's retirement, her own retirement, the death of her husband (and perhaps even of children), and the onset of age-related dependencies. Not only is it a demographic fact that the aging society is a female society (U.S. Department of Health, Education, and Welfare 1978), but it is a social fact that the caregivers to most of the world's elderly are women. Moreover, a care recipient and her caregiver may both be old, engaged in critical role transitions of their own, and called upon to make fundamental alterations in their relationship with one another. These may or may not include living together, a practice that is generally disfavored by the elderly and their adult children in Western countries although it often is the preferred arrangement elsewhere (Peace 1981:17ff.). In the three-generation study of Philadelphia women mentioned above, the caregiver's age, level of help, and living arrangement were found to be interrelated; that is, the older the caregiver, the more likely she was to live with her parent and to provide large amounts of help (Lang and Brody 1983). Findings such as these underscore the importance of examining culture-specific ways in which formal roles, such as "mother" or "daughter," are transformed by subsuming informal roles (i.e., those with no corresponding status), such as "sick person who may never recover" or "burden bearer" (see Glascock, this volume).
In areas where independence is not given the value that it is in Western nations, role transitions in aging families can be expected to entail different sets of problems. In India, for instance, where married couples typically reside patrilocally in joint (or extended) households, the central female figures in a woman's adult life are her mother-in-law and daughter(s)-in-law (Siebert 1981:221ff.; Vatuk 1980:290ff. and in Part II). Older women derive authority from their husbands to manage the household, and it is the duty of a daughter-in-law to serve her mother-in-law until the matriarch relinquishes its management to her. Since that transfer of authority usually is delayed, there frequently results "a growing tension between the two that may not end when the older woman finally has to give up control because of disability or illness" (Siebert 1981:225). If, on the other hand, an older woman is a widow -- the condition of 95% of Indian women 70 and above -- she is unlikely to be able to hold an extended household together. Such a person becomes dependent on one of her sons and thus on a daughter-in-law as well. In either instance, the role transition that an older woman and her caregiver must negotiate is problematic, given the widespread belief that "only a daughter can really serve her parents with all her heart" (Vatuk 1980:292).

In view of the discontinuities that are likely to be experienced by middle-aged and "young old" women in fulfilling their filial roles vis-à-vis the growing numbers of "old old," it is striking that recent work focusing on women in their middle years (see especially Giele 1982 and Brown 1982) does not take note of the roles of such women as caregivers to the elderly. Indeed, Brown's conclusion that middle age brings enhanced status and greater independence to women in most societies could well be nullified by the looming problem of caring for the world's aged.

**Kinship as Ideology**

Although the unprecedented numbers of long-lived persons can be seen collectively as constituting a new historical event, it is likely that individuals experience the responsibilities, burdens, and satisfactions of caregiving within the familiar context of "kinship" relations: that is, as part of a culture-specific set of ideas whereby an individual classifies the human world on the basis of a variety of criteria, including closeness, similarity, and complementarity. These kin-based distinctions are closely tied to primordial
meanings in a cultural system and may provide a model for the moral and practical force behind many types of human relations. On an ideological level, then, kinship can provide the potential for caregiving in most societies.

In examining kinship as ideology, questions emerge that concern the size or extent of the group, category, or collectivity toward which a feeling of commonality -- and therefore concern and possibly care -- should be extended. This question was raised above in the case of Vuonducu, when we discussed the issue of continuing obligations of collateral relatives to a nonlineal elder. Relations must be marked by some distinction between proximate and distant kin, between "regulars" and "irregulars." Of course, the proffering of care of some sort to a dependent older person may or may not follow usual near/far distinctions. It may be mitigated or shaped by ideas about what an old person is (whether worth giving care to or not), perceptions of available manpower (whether sufficient to aid a "distant relative" in need who otherwise would lack care providers), extent of expendable resources, and a variety of other factors.

Distance may be difficult for outside observers to estimate. For example (as we have noted), some family sociologists, viewing the nuclear family in industrialized societies as structurally isolated, incorrectly argued that amity and support could be expected only from nuclear family members, thus discounting the strength of affectual and material ties to members of older but related nuclear families, such as separately residing grandparents.

Another important issue concerns the potential "failure" of ideology: that is, ideas inherent in a system of kinship admit to the possibility of behavior not based on kinship. For example, in middle-class American culture, notions of relationship among kinsmen are based squarely on biology and are expressed in the idiom of "blood" relations; adoptive and fictive kin are usually recognized as other than "real" kin. Phrases such as "he's no son of mine" are attempts to turn aside the fait accompli of kinship -- a turning aside that can be done in deed only, not in substance. In non-Western cultures, dismissal may be easier; kinsmen may have alternative kin roles to play, depending on what they may wish to derive from a relationship at a given time. The greater instability of matrilineal than patrilineal kinship systems has been linked to such individual decisions, which are thought to increase
with the incorporation of entire societies in a unitary market system (Gough 1961). On Malo, for instance, one effect of the heightened demand for land in a cash-cropping economy has been to force an emphasis on patrilineal relations at the expense of affinal, matrilateral, and collateral ties. Neglect, under such circumstances, may operate to permanently suspend classification as a kinsman.

**Kinship as Concrete Activity or Process**

The process by which the details of aid to elderly kinsmen are worked out occurs within the sphere of family micropolitics and community life -- an arena that offers the ethnographer an opportunity to document the ways in which people constrain one another's behavior in the construction of events, and make concepts such as status and role, family membership, and market participation observable (McDermott and Roth 1978:323ff.). Estimates vary, but a considerable amount of the "work people do in organizing each other" (p. 323) can be thought of in terms of exchange, i.e., as "an exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons" (Romans 1964:13). If kinship behavior figures among those human relationships to which a transactional approach (Barth 1966) is relevant, then filial caregiving can be viewed as a particularly intriguing kind of exchange. The fact that it seldom is so considered undoubtedly reflects the fact that early formulations of exchange theory excluded behavior that is motivated not by return but by a sense of duty or some other internalized value (Heath 1976:2). Gerontologists who have viewed aging as a process of exchange (e.g., Dowd 1975) have looked at elderly and middle-aged people as members of adjacent cohorts, not as kin, and have emphasized the decreasing power and ability of the former to participate as equals with the latter.

Assuming that family relationships are mediated through exchange, we should be able to assess the tangibles and intangibles that are exchanged between the generations. We should also be able to track the participation of elderly individuals through exchange networks of all culturally relevant types, starting from a point of stability and moving through a course of decline into a state of dependency. By relating alterations in exchange functions to gradations of "dependency" and "caregiving," we also may obtain a clearer view of the "independent" elderly. To paraphrase
Schildkrout's statement about studying the roles of Hausa children,

If one focuses on the interaction of people of different ages, all as dependent variables, without assuming that one group or the other makes the rules, one is forced to reexamine the society itself and study the significance of participation with people of different ages. It then becomes possible to study the 'value of (old people)' in sociological terms (Schildkrout 1978:111).

In addition to noting the flow of tangibles and intangibles to and from an older person in need of care, we should assess the relationship of current caregiving to exchange over the life span. Is caregiving viewed as a "paying back" for an elder's work, earlier in life, in raising a junior? Is it offered in anticipation of a future benefit? Or is it viewed merely as an obligation or debt to be discharged to one's elders in anticipation of a return from one's juniors (as "insurance in old age") (Kagitcibasi 1982).

The crucial variables here are the nature of the dependency of the elder and his/her ability to continue, in some way, in exchange relationships. Given a disability or a state of decrepitude, what part of life -- what tasks -- can s/he continue to perform? How can an elder continue to "make contributions" to social life? Does "paying for" caregiving services become an issue, and how is it handled? How are outstanding social debts and obligations on the part of an elder treated? Is there an etiquette for withdrawing from social obligations? Does an inability to continue to contribute to a family exchange system signal social -- and imminent physical -- death? Is there some measurement on the part of a family of the "social capital" that an elder has gathered during his/her lifetime and a point (recognized by caregivers) when the capital runs out and care can no longer be provided? Indeed, can social capital be stored over long periods of time, or must it be continuously created and exchanged in order for relationships to be maintained? And, finally, is social exchange involving the elderly governed by a different morality from the economic market (which has served as the model of some for social exchange theory)?
Ideology of Opportunity

We assume (with Heath 1976) that social life no less than economic life is characterized by scarcity of time and resources, and that people must choose and make decisions among alternative uses of each. Accordingly, we suggest that the accommodations that people make between the filial imperative and other imperatives will be most difficult in the broad area that (following Scanzoni 1970) we have chosen to call the society's "opportunity structure": that is, the "system of highly valued and sought after rewards that are parcelled out by the society but not equally to all members" (p. 11). In our usage, the concept includes but is not limited to economic activities, since other types of activities (e.g., those of a ritual character) provide access to social rewards in some cultures.

In positing the generality of some form of opportunity structure that potentially competes for time and resources otherwise available for caregiving, we suggest that such a conceptualization more closely approximates the conditions of maximizing behavior found across a range of societies than do the static, dichotomizing assumptions usually brought to the analysis of modernization phenomena. It easily accommodates the structural-functionalist model of the Western conjugal family, whose linkages to the opportunity system are mediated through the husband's occupation. But it is equally appropriate to the complex sets of imperatives that motivate non-Western economic activities.

More to the point, however, the conceptualization accommodates the variety of circumstances in which increasing numbers of women find themselves: feeling torn between some combination of filial, spousal, and parental imperatives and the necessity or desire to achieve some goal outside the domestic domain, however that may be defined (Bourguignon 1980ff.). In the U.S. -- where 60% of women between the ages of 45 and 54, as well as 42% of those between 55 and 64, now work outside the home (U.S. Dept. of Labor 1981) -- researchers are alert to the possible stressful effects of competing responsibilities on middle-aged caregivers to the elderly, characterized by some as "women in the middle" (Brody, E. 1981).

We strongly suggest that the phenomenon of the woman in the middle is not confined to Western societies. Even in the absence of employment in monetized economic activity, women in the Third World work outside their
homes. In many areas they are the principal producers and collectors of food — an involvement that does not necessarily change with modernization, since rural women (in developed as well as developing countries) are likely to assume more agricultural tasks when their husbands seek paid employment. In addition to economic activities — which many take Third World women on extensive trading expeditions, as in West Africa and parts of the Caribbean and mainland Latin America (Mintz 1971), or in search of distant partners in savings-and-loan transactions, as in the Papua New Guinea Highlands (Sexton 1982) — they typically fulfill obligations to a wider circle of kinsmen (their husbands' and their own) than do women in most Western countries. For example, in India, Pakistan, and Bangladesh, women are said to suffer from a "triple burden" that is at once demographic (because of the heavy child-rearing responsibilities accompanying high fertility rates), gastronomic (because of the constraints of poverty and tradition on styles and methods of cooking and eating), and gerontological (because of the additional work that married women must perform to show proper "respect to elders") (Bose 1979:118). This triple burden, it is argued, is "more intense than the 'double burden' of job and family in other situations" (ibid.).

The burdens of Third World women may or may not lessen as some individuals avail themselves of the opportunities most often associated with modernization in the West: access to literacy and formal education, control of mate selection and conception, paid employment, and self-expression leading to a measure of influence over public policy. As Bourguignon (1980:339-340) cautions, culture change (e.g., the growth of a cash economy) may serve to reinforce rather than replace existing values.

It is often stated in comparative studies of women's roles that economic/technological development based on Western models adversely affects the roles of women (see, for example, Boserup 1970; Bourguignon 1980:339; Dauber 1981; Lewis 1980; Papanek 1979; Rihani 1978; Smock 1977:196, 408; Tinker 1975:5). The full extent of such effects may not be known, however, since the recommendations and subsequent discussion emanating from the International Women's Year in 1975 not only neglected the needs and opportunities of older women (Peace 1981:11) but also largely ignored the problems of female caregivers to the elderly. Research is urgently needed to extend the detailed analysis of domestic behavior and familial rights and duties, such as that applied to the spheres of
production and reproduction (Anker 1982, Epstein 1982, Goody 1976a; Oppong 1982), to the area of services performed for dependent elderly kin. To paraphrase Oppong,

It is necessary...to examine whose time is potentially available and selected for (parent care) and related household activities, and the cost of that time (1982:136).

The specific content of women's goals will vary from place to place and with the changing ideological climate, but if a woman simultaneously experiences the "pull" of filial responsibility and that of the opportunity structure (i.e., either personally aspires to attain what she sees other women attaining or shares in the aspirations of her husband), the accommodation she makes between the two imperatives is likely to be fraught with difficulty.

The power of opportunity ideology to mask deviant reality is nowhere in greater evidence than in the ubiquitous practice of basing descriptions of family structure on modernization theory rather than vice versa. We should therefore expect the ideology of opportunity to be an especially potent element in the interactions between mature generations, particularly as it comes into contention with the ideologies of aging (e.g., over the relative virtues of innovation and tradition) and of kinship (over such issues as occupational and social mobility, acculturation, and the like). We now turn to a consideration of some of the areas of social life in which the availability and exercise of options may have a bearing on filial caregiving.

**Opportunity as Process**

The strategies, and consequent processes, for maximizing opportunities vary widely with social structure and in relation to other aspects of social organization. We confine ourselves here to discussing ways in which society-specific patterns of marital status in late life, control and allocation of resources, residence, and adoption may be relevant to filial caregiving.

**Late-life marital patterns.** -- The make-up of a caregiving task force obviously is influenced by existing possibilities for remarriage in late life. A spouse may be the primary caregiver for a dependent older person, with or without the assistance of children
The potential for aid from spouses is greater in cases of polygamy (more personnel) or if there is a wide age difference between husband and wife (less likelihood that age-related deficits will trouble both spouses).

Possibilities for remarriage are numerous in many societies (Lopata 1972:303), but in the United States, for example, the likelihood of remarriage after age 65 is slight (Cleveland and Gianturco 1976). In interviews with elderly Americans, both authors have heard avoidance of a caregiving burden given as one reason for an individual's reluctance to remarry. For elders without a living spouse, the onus of caregiving usually falls on children or other relatives. For those without children, problems may be immense (Johnson and Catalano 1981). Nydegger concludes from her cross-cultural survey of the family ties of the aged that the position of childless elderly "without personal resources and in the absence of institutionalized aid...is generally wretched" (1983:28).

Resource control and allocation over time. Ways in which older persons control resources (however they may be defined) potentially affect the balance of power in a caregiving system. Bluntly stated, if property is owned and at the disposal of an elderly and infirm individual, care may be provided primarily in hopes of inheritance. In many societies extended longevity taxes family resources, systems of inheritance, and the etiquette of property transfer to the fullest. Cross-generational passage of resources may be at the heart of decades of tension between mature generations, as reported for rural areas in Ireland (Arensberg and Kimball 1940) and Norway (Park 1962). Fear of depleting finite resources in order to extend the life of an elder may affect the quality and quantity of care given; indeed, mobile hunting and gathering societies inhabiting harsh environments commonly make little effort to prolong the lives of their feeble members (Simmons 1945; Glascock, 1984). Whether a cultural tradition includes disinheritance as a tool of a person's "will" may also influence the care provided to an elder. Other important variables include the timing of inheritance, the direction of property transfers, the need of elders to control children, and the nature of the property and its control (Cates and Sussman 1982; Goody 1976b; Rosenfeld 1979). Crucial resources may be herds of livestock, as among East African pastoralists, or intangible rights and prerogatives, as in Oceania. On Malo, for example, knowledge is a resource and a valuable, units of which can be hoarded, shared,
strategically revealed, or even traded for other valuables (typically by an elder with a junior) (Rubinstein 1981:152ff.)

Residence. -- The effects of residential mobility on the potential for caregiving are profound. As Delaney notes for Thailand, "having younger kin dislocated by migration as they pursued job and educational opportunities is one chief means of isolating the old" (1981:142). Some societies may foster the maintenance of boundaries between elders and others (Keith 1982). Reconciling values of family solidarity and individual achievement may involve both allegiance to the family and residence away from it; such living arrangements challenge families to maintain what Rosenmayr and Köckeis (1963:423) call "intimacy at a distance," a condition that is greatly facilitated by modern means of communication. In some instances the benefits (e.g., from added income contributed to the support of the family) may or may not outweigh the burdens (e.g., increased strain on proximate caregivers). The alternative of installing an elderly parent in the unfamiliar home of an adult child may be even more problematic in developing areas than in the West. Cox and Mberia quote a Kikuyu informant as follows:

I have thought a great deal about (my father's) years in my home and sometimes I feel guilty. Leaving his own homestead drove him into senility. He never recovered from the shock. We must find a way to take care of the old within their own familiar surroundings. We must neither isolate or uproot them. The problem worries me very much (Cox and Mberia 1977:122).

The efforts of other community members in caring for the elderly, particularly those without children, must also be studied cross-culturally. The considerable help provided to elders by neighbors and other members of the community is well documented for some cities in the U.S. (Cantor 1977; Sherwood et al. 1981). In many cultures there is no real distinction between neighborliness and kinship, however; the study of the apportionment of responsibility for the care of the elderly in such contexts may provide new insights into the social structure of such societies. The role of the community in establishing and enforcing norms of appropriate behavior toward the elderly also is of great interest.
Another issue related to residence is age-density. Although age is one of the basic principles by which human societies are organized, formal organizations based on age (e.g., a localized segment of an age grade recognized throughout society, or a residential community established by and for the old) are relatively rare (Simmons 1945). Rosow's (1967, 1976) suggestion that higher residential densities among the elderly are likely to facilitate the creation of age norms, social groups, and high morale bears assessment in non-Western societies with increasing numbers of elderly members. The participation of co-residential (neighborhood, area, village) well elderly as caregivers in lieu of family members also needs to be examined.

Adoption. -- One mechanism for moving previously unrelated or residentially separated persons into a new relationship is adoption. As Carroll (1970) has pointed out, adoption takes place between total strangers in the West, whereas it occurs between relatives elsewhere. Often young children are adopted with the expectation of assistance to the adoptive parent with subsistence activities. The extent to which adoption also represents a form of old-age insurance in other domains requires cross-cultural study. There are indications that it does in areas of Oceania and South Asia, particularly for the childless (Carroll 1970:134; Hiebert 1981:213). In some societies in Oceania, adopted children occasionally inherit more land than biological children, particularly when the latter neglect their parents in old age (Boward 1970:35; Lundsgarde 1974:194). Counts (1982:149 and in Part II) reports that people in West New Britain continue to adopt children until they are in their seventies. Guemple (1969), describes the attempts of older Eskimo women to adopt children when they are no longer able to have their own, but the adopted children customarily leave when their adoptive parent becomes enfeebled. Although the use or extension of adoption for caregiving in communities with numerous dependent elderly cannot be predicted with any certainty, it may represent a potential solution to problems of age-related dependency in some areas.

SUMMARY AND CONCLUSIONS

This paper has addressed the phenomenon of worldwide aging from the perspective of adult children, the actual and prospective caregivers for most of the world's elderly population. At the risk of exposing a dark side to the undeniable benefits that have accom-
panied the dramatic increases in life expectancy, we have emphasized the profound social changes that are likely to occur in their wake. To aid in conceptualizing the sociocultural consequences of increases in the generational depth of families (typically, from three to four and even five living generations), we examined in detail the case of one nonindustrial society -- that of the Melanesian island of Malo.

The Maloese live in nuclear households, but older people remember a "traditional" period when extended families were associated with domestic violence and high-handed indifference to the welfare of people, young and old. By focusing on two semidependent individuals and their family configurations (as of 1976), we were able to observe a strong ethic of caring, coupled with helping networks that are adequate despite the frequent migration of sons to towns and the relocation of daughters to the land of their husbands. Those networks may be drastically reduced in the future, however, as a result of factionalism, intense population pressure and competition over land.

Noting few basic differences in family structure between Malo and industrialized Western countries, we proposed an approach to the comparative study of relations between mature generations that emphasizes dynamic process rather than a succession of static states or family types. To accomplish this, we focused on three sets of issues -- aging, kinship, and opportunity -- over which contention might be expected to occur as adult children in any society attempt to respond to the filial imperative in the context of other imperatives. We examined each of these organizing categories from the dual perspective of ideology and process, acknowledging not only the meanings that rules, values, and institutions impart to social behavior, but also the latitude that all societies allow for individual decision making in carrying out role-specific or other normative behavior.

We noted, in connection with the ideology of aging, the prevalence of myths about the elderly, and particularly one that is pervasive in Western countries: that the elderly "nowadays" are not cared for by their children as was true in the past. We then discussed the social process of aging as it is affected by the experience of time, personhood, and roles (especially as they undergo transformation).

Turning to the ideology of kinship and the familiar meanings that it provides, we suggested that these
are the probable basis and motivation for filial caregiving. In discussing the processes, or concrete activities, of kinship, we proposed that the "tangibles and intangibles" exchanged between mature generations be studied as parts of wider systems of exchange among kinsmen.

Finally, under the rubric of ideology of opportunity, we observed that people have finite quantities of time, energy, and resources, and must choose among alternative uses of each. To whatever extent the imperatives of filial responsibility and opportunity seeking are perceived to be in conflict, adult children (and, we suggest, particularly daughters and daughters-in-law) may experience difficulty in harmonizing the two. Four areas in which opportunity-related processes are especially relevant to caregiving (marital status in late life, allocation and control of resources, residence, and adoption) were singled out for closer examination.

Without claiming that the approach we have outlined is the only way to apprehend the reality of relationships between mature generations, we suggest that it offers certain advantages to the researcher. By considering structural and interactional factors in tandem, it retains a global perspective on worldwide aging while opening to examination the variegated qualities that give texture to the "interior" of intergenerational relations. By drawing on the strengths of several methodological and conceptual perspectives, it moves beyond traditional measures (e.g., of interaction frequency, residential proximity, mutual aid, and values transmission) that are somehow "assumed to gloss adequately the person's relations with others" (McDermott and Roth 1978:321). A variety of interactional methodologies, approaches, including network analysis, exchange theory, decision theory, scene analysis, and cognitive anthropology, might be brought to the task. By aiming at a careful description of the behavior of individuals, and its meaning to them, our approach bypasses such abstractions as "the nuclear family," "the extended family," and "the status of the aged," and thus views the processes of interaction as "series of relationships rather than static units" (Gordon and Hareven 1973:394).

Finally, we urge other researchers -- regardless of their proclivities -- to complete the provisional outline that we have sketched here, attempting to specifying the full constellation of imperatives recognized by "families or other natural groups with a past
history and the expectation of a future together" (Skolnick 1975:719). The task is especially critical in the Third World, where family dramas surrounding the long-term care of the elderly may be played out against impending food crisis, increasing poverty, and possible political upheavals.
NOTES

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1 In a recent review of modernization theory, Finley (1982:515) observes that, inasmuch as the theory was derived from ethnographic records, it is not surprising that most of the ethnographic data are consistent with it.

2 Our use of the term "filial response" is provisional. It recognizes that, in the West, adult children and members of their households usually are the primary caregivers to widowed elderly persons; such a pattern is not universal, however, and actual practice may be subject to considerable cultural, attitudinal, and situational diversity. The term "filial," then, is likely to be inappropriate in some situations.

3 Field work on which this presentation is based was carried out by R. L. Rubinstein from May 1975 to October 1976 (supported by the National Science Foundation, by Sigma Xi, and by Bryn Mawr College) and in July-August 1983 (supported by the National Science Foundation).

4 Small populations (less than 400) of immigrants from Malekula and Ambrym are now permanent citizens of Malo.

5 In 1976, about 50 individuals were closely associated with the traditional lifestyle. In 1976 this number was fewer than 20.

6 "Custom," known indigenously as kastom, pertains to a modern conceptualization of traditional acts, behaviors, and practices. It is a significant cultural element in modern-day life.

7 The notions of having a place, of being placed, and of events taking place at a particular location are extremely important in Malo culture.

8 The modernist (mission) and traditionalist (nonmission) factions are divided on the basis of political and temporal orientation, residence, and other indicators. This gross division, too, is an oversimplification, since some mission adherents can be considered generally "traditionalist" on the basis
of political orientation and residence. Generally, there appears to be little distinction in the treatment of the old on the part of these groups.

In the Avunitare village area there are at least six aging sibling sets of six or more members, most of whom have near-adult children. Currently, very few sibling sets of elderly persons remain intact. However, there are at least 30 juvenile sibling sets of five or more members; sibling sets of nine members with a common father and mother are not uncommon (we estimate ten). In 1976, there was a one-father, two-mother sibling set numbering 16. Genealogies report very few sibling sets of comparable size in previous generations. The implications of this trend for caregiving and for social organization in general are profound.

We have no figures for Malo since 1976. A recent issue of Pacific Islands Monthly (June 1982) reports a nationwide population increase of 10,300 (from 112,700 to 123,000) between January 1979 and December 1981, or a percentage increase of 9% in three calendar years.

Much remains to be done to specify the interactive content of the structural outline that is presented here. In its present form, the case presentation is only intended to be illustrative.

Obviously, the nuclearization of the household unit on Malo cannot be associated with urbanization or industrialization, as predicted by modernization theory. Indeed, it most likely resulted from the individualizing influences of Christianization, as theorists from Weber (see Bendix 1967:83) to Goode (1963:23) have suggested that it did in the West. That tendency has been reinforced in the modern period by the growing economic focus on cash-crop farming and, through it, the lure of individual success. Although kinsmen often help one another with copra labor, production is oriented to raising the money needed to provide members of the nuclear unit with items that are fast becoming necessities rather than luxuries (Rubinstein 1981:147). Monetization and the dispersal of kin do not universally preclude the existence of extended families, however (Comhaire 1956).

It may be, however, that most peoples assume that things were better in the past. Among the Ibo, "deviations from the ideal are attributed to the actions
of the Government or similar extraneous agencies" (Jones 1962:194).

14"The Care of the Dependent Elderly and Women's Changing Roles" (Administration on Aging Grant #90-A-1277); Elaine M. Brody, Principal Investigator.

15Our particular focus on women's caregiving roles is not intended to slight the often considerable help that men provide to elderly relatives, but rather to acknowledge the widespread cultural allocation of instrumental caregiving roles to women (van Baal 1975). In the U.S., men are most often reported to help with financial advice and funeral arrangements (Lopata 1973).

16Recent survey data for the U.S. indicate that 40% of people between the ages of 55 and 59 have at least one living parent, as do 20% of those 60 to 64, 11% of those 65 to 69, and 2% of those 70 to 79 (National Retired Teachers Association - American Association of Retired Persons, 1981).

17Theorists since Mauss (1954) have recognized exchange as an important component of kin relations, but until recently (e.g., Nye 1982) the scattered applications of the notion to the internal dynamics of kinship groups in the U.S. were limited to the marital dyad (Blood and Wolfe 1960; Heer 1963; Scanzoni 1970) and relationships between parents and young children (Richer 1968).

18In this connection, it should be noted that the ideology of opportunity may well overlap with that of kinship or aging. The instrumental functions of kinship systems in simpler societies have been well understood since the classic studies of kin-based economic transactions, power relationships, etc., by Malinowski (1935) and Firth (1929, 1946). Moreover, kinship rules and values have been found to serve economic and political objectives in modernizing societies, including Japan. Bennett and Despres's (1960) comparison of five such cases led them to a conclusion that is relevant to modernization theory: "any type of kinship structure can be rationally employed in the organization of instrumental activities" (p. 263).

Similarly, practical societal functions are widely attributed to age-systems. According to Baxter and Almagor (1978), however, political functions are over-attributed to age-systems in acephalous African societies
"just because they are conspicuous and other suitable institutions are not" (p. 176).

Although women's participation in such labor-intensive activities as ploughing, planting, and harvesting may be acknowledged in census data and labor-force statistics, most of their agricultural and pastoral labor (including caring for domestic animals) is non-monetized and therefore not considered "productive" even when it is performed outside the household. Such women's activities as fishing, hunting, poultry-raising, house-building, tool-making, transportation, fuel-collecting, water-carrying, food preparation (including processing and conservation) and distribution, spinning and weaving, other arts and crafts, and trading of goods frequently go unrecorded by governments and social scientists (Youssef 1982:174).

For a critique of these arguments, see Huntington 1975.

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