Unless changes occur in the way cohorts age, the future aging of the population will make the burden of caring for older persons an increasingly salient political issue in American society. There is no reason, however, why aging in the future should replicate the pattern of aging that currently exists. A helpful step toward understanding what social changes would reduce the burden that aging cohorts place on society is the development of aging theory. This article develops a theoretical framework that explicates factors determining the level of care given and care received by cohorts moving through different stages of later life. Four proximate determinants of caregiving and three proximate determinants of care receiving are specified. Once the proximate determinants are identified, attention is focused on social changes that could reduce the burden of aging produced by cohorts aging through later life in the future.

Key Words: Dependency, Productivity, Aging theory, Social change

The Burden of Aging: A Theoretical Framework for Understanding the Shifting Balance of Caregiving and Care Receiving as Cohorts Age

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Critics of the Theory of Social Disengagement have done such a good job of pointing out its serious (or fatal) flaws that the theory no longer has any serious defenders. Unfortunately, the unpopularity of the theory has diverted attention of aging theorists away from a most interesting and significant issue that this theory addresses. Why does the productive contribution of individuals to society so frequently decline as they age through the later stages of life? Having posed this question, a related, and equally unpopular, question arises: Why do individuals tend to become increasingly dependent upon others for assistance as they age? The tendency to produce less and to depend on others more with advancing age creates a burden of aging on society. As the population grows much older over the next several decades, the burden of aging will become an increasingly salient political issue. If gerontologists fail to address this issue, individuals with less understanding of the aging process will dominate the public discourse of how society should respond to the potential burden of an aging population.

The discussion to follow considers the shifting balance between volume of care given and care received as individuals in contemporary society age. The direction of the shift with age is quite obvious. In the middle years of life many persons are heavily involved in providing care for others (children, sick persons of all ages, and dependent older persons), and relatively few are receiving large amounts of care. Thus, in aggregate, middle-aged persons supply a large surplus of care. At very old ages, on the other hand, many are receiving a high volume of care and few are heavily engaged in providing care. Thus, in aggregate, the very old population consumes much more care than it provides. The goal is to understand why the observed pattern of change in the balance of care given and received with age occurs.

Many gerontologists, who have labored to dispel negative stereotypes of aging, may object to focusing attention on the burden older persons place on society. Without apologizing for formulating the issue this way, I want to make three comments that may reduce initial misunderstandings. First, I agree with Harry Moody's critique of contemporary American society's excessive valuation of productivity and success at the expense of serious reflection on the meaning of life and meaning of old age (Moody, 1993). The value of any person's life should not be calculated by subtracting the cost of caring for him or her from the economic value of his or her present and future productive activities. Second, I agree with all intelligent gerontologists who recognize great heterogeneity among persons at every stage of life (Dannefer, 1988; Maddox, 1987). Among 80-year-olds, as among 40-year-olds, there is great individual variability in amounts of both care given and care received. And third, I agree with all social scientists who insist that many of the forces that determine human behavior, including the production and consumption of care, are beyond the control of the individual (Riley, Kahn, & Foner, 1994). Indeed, this last point is the central...
reason why it is interesting to develop a theory of why
the volume of caregiving and care receiving changes
with age in contemporary society.

Sharpening the Focus

The subject of interest in this discussion is the
general pattern of aging in society, not the experi-
ences of particular individuals. Given this interest,
the logical aggregate of individuals whose aging ex-
erience is followed is the cohort, consisting of all
those born within a particular period of time. One
could trace changes that occur over the entire life
course of a cohort, as it ages from infancy until
ultimate extinction when its last member dies. For
our purpose, however, it is sufficient to begin with a
cohort defined as all members of a population who
have entered some middle stage of life in a particular
time period (for example, those who were aged 55-
59 in 1980). Attention is then focused on changes in
the aggregate levels of care provided and care re-
ceived by this cohort as it subsequently moves
through progressively older age categories. The bal-
ance between care given and care received for this
cohort unquestionably is positive initially, but then
declines to zero by the time it enters some older age
category. After reaching zero, the balance of care
remains negative as the cohort passes through all
subsequent age categories.

The total volume of care given at a particular stage
of life is the product of the cohort’s size and the per
capita caregiving of cohort members. Similarly, the
total volume of care received is the product of cohort
size and per capita receipt of care by cohort mem-
bers. Thus the maximum burden of a cohort on
society does not occur at the very oldest ages, al-
though this is when the largest per capita discrep-
ancy between providing and receiving care exists.
The reason, of course, is because the size of the
cohort becomes progressively smaller with age.
From the societal perspective, a cohort presents its
greatest burden of aging as it occupies some middle
stage of later life, when it still has a relatively large
number of its members but the per capita balance of
care has become significantly negative. If there is a
desire to reduce the burden that older persons place
on society, it makes sense to concentrate attention
on ways of reducing the negative balance of care at
those ages where the maximum cohort burden oc-
curs. Before developing a framework for under-
standing the age pattern of the balance of care, it is
necessary to be more explicit regarding what is
meant by caregiving and care receiving.

Caregiving, in this article, is defined as assistance
provided to persons who cannot, for whatever rea-
son, perform the basic activities or instrumental ac-
tivities of daily living for themselves. Caring for chil-
dren, for mentally or physically sick persons, and for
disabled or handicapped persons are included in this
definition of caregiving, whether or not the person
providing care receives pay for the services pro-
vided. The caregiver may be someone caring for her
young grandchild, a nurse in a hospital, an aide in a
nursing home, a teacher in a preschool, an adult
helping his parent who suffers from Alzheimer’s Dis-
ease, a volunteer in a hospice program, etc. With this
definition (or any plausible definition) of caregiving,
it is apparent that per capita provision of care to
others declines consistently as a cohort ages past
middle age. Although some persons at even very old
ages are involved in providing care, the average level
of caregiving declines in later life. Certainly there is
a dramatic decline after about age 60 in proportion
of cohort members employed in caregiving occupa-
tions. In addition, consider the following bits of
information from a recent national survey of the
noninstitutionalized older population:

(a) The proportion of persons providing child care
falls from 22% of those aged 65–74 to 5% of those
aged 85+;
(b) The proportion involved in volunteer work falls
from 22% of those aged 65–74 to 10% of those
aged 85+;
(c) The proportion who provide personal care for
someone else falls from 35% of those aged 65–74
to 12% of those aged 85+ (Kincade et al., 1996).

In the survey that provides this information, respon-
dents are credited with providing care in these vari-
ous areas if they report being involved at some level
in the past year. Among those reporting involvement
in volunteer work, 70% spent less than two hours per
week in this activity. Without denigrating the con-
tributions of older persons in meeting the needs of
others, it is clear that cohort members provide less
care in the early phase of old age than they did in
middle age, and that average levels of caregiving
thereafter decline significantly as the cohort ages
through the remainder of its life course.

The other factor affecting balance of care for a
cohort, dependency upon others for care, also
needs to be defined. I conceptualize dependency as
the total cost to others of providing care for members
of a cohort. This measure includes the value of all
informal caregiving provided by spouses, children,
friends, and volunteers, as well as health and long
term care paid for by the society (primarily through
Medicare and Medicaid). As with caregiving, per
capita dependency on others for care changes as
cohorts age. Several pieces of information indicate
that aging is associated with a steep rise in the
amount of care received:

(a) The proportion living in nursing homes increases
from 1.5% of those aged 65–69 to 22% of those
aged 85+;
(b) The proportion of the noninstitutionalized popu-
lation requiring help in performing activities of
daily living rises from 9% at ages 65–69 to about
43% at ages 85+;
(c) The proportion of persons suffering from Alzhei-
mer’s disease rises from less than 4% at ages 65–
69 to about 47% at ages 85+;
(d) Public per capita health care expenditures in 1987
for those aged 65–69 was $3,728, compared to
$9,178 for those aged 85+ (U.S. Bureau of the
Having developed the object of theoretical interest, a strategy is needed for identifying the critical variables responsible for age patterns of caregiving and care receiving. The strategy employed here involves the use of proximate determinants. The proximate determinants are those immediate factors that determine the volume of caregiving and care receiving, and through which any more distant causal variables must operate. Once the few direct determinants are specified, one can concentrate attention on the most significant variables that affect each of them. The ultimate goal is to develop a parsimonious set of variables that adequately explains why caregiving and care receiving behaviors change with age. With this perspective, the first question to answer is what the necessary conditions are for individuals to engage in caregiving.

**Proximate Determinants of Giving Care**

Four factors determine the volume of care for others provided by members of a cohort as it occupies any particular age category. First is the physical and mental capacity of cohort members. Physical and/or mental problems prevent some individuals from being caregivers, while less severe conditions limit the ability of others to provide care. Therefore, all other factors being equal, the higher the rates of physical and mental disabilities in a cohort, the lower its potential for providing care. Given current age-specific rates of impairment, this factor does not present a serious constraint on a cohort in the early phases of old age. Past age 80 or 85, however, when two thirds of a cohort is institutionalized and/or limited in performing activities of daily living, physical and mental problems are a major limiting factor.

The second factor is possession of skills and knowledge required to provide care. Caregiving skills and knowledge may deteriorate as a cohort ages, or new skills and knowledge required by technological advances may not be acquired. Little empirical data are available to assess how much change in relevant skills and knowledge occurs as cohorts age. It is likely, however, that decline is minimal in skills needed for providing basic care for children and disabled persons, while significant deficits develop in more technical areas of health care where new technologies are changing accepted practices.

The third factor affecting volume of caregiving is opportunities. Persons who are fully capable of providing care will be unable to do so if they lack access to those in need of care. It should not be assumed that existing social structures effectively match potential older caregivers with individuals who are in need of care. Opportunities for giving care will decrease as cohorts age if cohort members become increasingly disconnected from formal and informal networks that link givers of care with receivers of care. Empirical data to assess how much this barrier to caregiving increases as cohorts age are severely limited.

The final factor involves motivation for individuals to provide care. Capable persons and available positions are not sufficient conditions for caregiving activities to occur. In addition, members of a cohort must be motivated to engage in this activity. The motivation of older persons to provide care is affected by social norms regarding what is expected and by rewards (money, social recognition) given to caregivers. A schematic including the four proximate determinants of caregiving is shown in Figure 1.

**Proximate Determinants of Care Receiving**

As with caregiving, there are several proximate determinants of care receiving. Three factors account for the volume of care received by members of a cohort as it occupies any particular stage of life. Two of these relate to level of need for care, while the third relates to access to care providers.

The first, and more obvious, determinant of need is level of physical and cognitive functioning. Physical and mental disabilities can create dependency upon others for assistance. As discussed above, the prevalence of these disabilities in a cohort increases as it ages through later life, and at very old ages they affect a majority of persons. Thus, variables affecting health are doubly significant in creating the burden of aging, since they both limit ability to be productive and increase need for receiving care from others.

Volume of need is not uniform, however, across individuals who suffer from similar types of disabilities. Given a particular disabling condition, some persons are more able than others to care for themselves. Thus, the second proximate determinant of care receiving is ability to provide self-care. Ability to meet one’s own needs may come from learning new ways to care for one’s self, or by making use of aids that reduce reliance upon others for assistance. In addition to access to training and technology that promote independent living, psychological factors also affect the self-help variable. Numerous studies have shown how dependency increases when older persons lose a sense of personal efficacy.

Volume of care receiving cannot adequately be understood by considering physical and mental impairment and ability to provide self-care. Access to caregivers is the third proximate determinant. No doubt some older persons would increase the volume of care they receive if care providers were more available and willing to supply care.
works that provide them with an adequate supply of services can be limited by lack of knowledge (e.g., not knowing that one is entitled to an insurance benefit) or by reluctance to request help (e.g., not wanting to be a burden). The model indicating how proximate determinants of care receiving operate is shown in Figure 1.

Ten Key Variables Affecting the Proximate Determinants

The final step in developing a framework for understanding the changing balance of care for cohorts as they age is to specify the key variables affecting each of the proximate determinants. More specifically, the goal is to identify the most significant social variables affecting this important aspect of aging. As one might anticipate, each of these social variables has received attention in the gerontological literature. There are, nevertheless, several things gained by bringing them together in a theoretical framework. The powerful effect of social structure on aging is highlighted. The multiple possibilities for social changes to alter the cohort balance of care in later life is suggested. And a way to locate various specific research efforts within a larger picture is provided. Advances in understanding come from recognizing how discrete pieces of research are complimentary and fit together to explain a larger process. Ten social variables stand out as being particularly relevant.

Variables Affecting Physical and Mental Health

(1) Health-related Habits. — As discussed above, physical and mental health status affects both potential for providing care and need for receiving care. Several lifestyle habits — diet, exercise, smoking, stress management — have direct consequences for health in later life. Although they are behaviors of individuals, social forces influence how likely or unlikely individuals in a cohort are to adopt particular health-related habits. Public health campaigns and tax policies can alter attitudes and behaviors related to smoking. The mass media has substantial power to change aggregate diet and exercise patterns by disseminating information regarding their health consequences. Work conditions and public safety programs influence stress in the environment, and education programs and self-help groups can provide stress management training. Many other examples could be provided of ways in which social organization influences patterns of behavior related to physical and mental health.

(2) Organization of Health Care. — An extensive and critical literature exists on the current organization of health care, the second variable affecting health status (Estes & Binney, 1989; Haber, 1994). Access to health care and the type of health care provided have important consequences for health and functional status in later life. The proportion of persons in the United States who have access to medical care increased when government health insurance for the poor and the elderly was implemented. Nevertheless, the existing health care system excludes many from receiving basic care. Alternative ways of organizing the delivery of health care could be designed, with one result being the improvement of the health status of persons during later life. Equally important, the dominance of a medical model of health care has implications for health and functional status in later life. The medical model, oriented around treatment of disease and controlled by physicians, fails to emphasize such things as prevention of disease, maintenance of good health, and rehabilitation. Through its effect on the health status of individuals, the social organization of health care affects the potential productivity of older persons and the level of their dependency upon others for care.

(3) Social Support Networks. — A third variable affecting health status is social support networks. Social support comes through relationships with others that involve positive interaction and assistance. This definition recognizes that relationships have the potential for being detrimental to health (when they are negative and conflictual) as well as beneficial (when they are supportive). Linda George (1996) provides a good overview of the multifaceted research being conducted on the influence of social support on physical and mental health. She concludes that, “A convincing body of evidence supports the conclusion that high-quality social ties enhance health and functioning” (p. 245). In addition, research findings report that subjective perceptions of social support have significant consequences for health and that friends as well as kin are important in social support networks. Social networks not only influence productivity and dependency in later life by affecting health status, but they also operate through other proximate determinants, as will be discussed below.

Variables Affecting Skill and Knowledge

(4) Later-life Learning. — The most important social variable affecting the caregiving skills and knowledge level of older persons is the place of learning in later life. The organization of the life course in contemporary society focuses on education as the central activity of childhood, rather than an activity for middle-aged and older persons (Riley & Riley, 1986). Indeed, Harry Moody writes, “The most important observation about education for older adults in America is that the enterprise is not serious” (Moody, 1993, p. 221). The ability of older persons to
provide care could be increased by developing greater awareness of education as a lifelong activity and by creating a fuller range of educational opportunities for adults. In thinking about possibilities for later-life learning, it is important to move beyond existing arrangements offered by educational institutions, and to recognize that a wide range of alternative possibilities exists. For example, innovative use of media and expansion of community-based self-help groups provide opportunities for education outside of classrooms (Laslett, 1991; Moody, 1986).

Later-life learning also should be viewed as a variable affecting dependency through its potential impact on self-care. Individuals with functional limitations often are capable of learning skills that enable them to avoid being dependent on others, and social factors can facilitate or hinder this type of learning. In some cases, this learning requires the development and dissemination of technical information that instructs individuals how to perform particular techniques. In other cases, learning from self-help groups may provide empowerment and encouragement for individuals to gain confidence needed to care for themselves. It is important to recognize that social arrangements, such as institutionalization, can teach helplessness to individuals and promote dislearning of skills needed for independent living.

Variables Affecting Opportunities

(5) Work Options. — A wide variety of jobs involve providing care for others. These range from high-skill, high-wage positions (physicians, nurses) to low-skill, low-wage positions (day care workers, babysitters, aides). The variable “work options” concerns the access that older persons have to these work positions. (Other factors affecting actual rates of employment are health and skill levels (discussed above) and motivation to work (discussed below).) Discussions of labor market conditions facing older persons (Bluestone, Montgomery, & Owen, 1990; Doeringer, 1990) repeatedly suggest two changes that would increase opportunities for employment. The first is a reduction in age discrimination, which requires changing employer attitudes toward older workers. It is likely that the number of older persons working in caregiving occupations would increase if age was not a relevant criteria for employment. The second change that would increase work options is increased flexibility in scheduling and conditions of employment. Whether or not current employment practices are economically rational, it should be recognized that employment of older persons could be increased by creating more part-time, part-year, or other flexible work options.

(6) Volunteer Options. — Some older persons find opportunities to provide care for others through volunteer programs, and there is evidence that the volume of volunteering could be increased (Caro & Bass, 1995). Given the success of the Foster Grandparent Program and the unmet needs of American children, particular attention might be directed to designing structures that would expand opportunities for older persons to provide care for young children. Churches, which tend to focus on ministries for older persons, could give greater attention to providing opportunities for their older members to engage in ministry to others. Existing community volunteer programs could give more attention to recruitment of persons who have not previously been involved in volunteering and to adapting programs to better utilize the existing skills of potential volunteers.

(3) Social Support Networks. — This variable, social support networks, previously was discussed as a factor affecting physical and mental health status. It also has implications for opportunities to provide informal care. Kin and friendship networks tend to link individuals who need care to individuals who can provide care. To the extent that social networks change in size and composition as individuals age, opportunities to provide care will change. As indicated below, networks also affect the access that older persons have to caregivers, and thus to the volume of care they receive.

Variables Affecting Motivation

(7) Rewards and Costs. — Because of past experiences or personality, some persons entering old age are highly motivated to assist needy persons. For others, extrinsic motivation is crucial for them to take advantage of opportunities to provide care. One obvious reward is economic—older persons might be paid, or paid more, to engage in caregiving activities. In addition, motivation could be increased by offering such social rewards as special status or recognition to those who provide useful service to others. A potential reward for some types of caregiving is the opportunity they provide for developing new social ties and friendships. Reducing the costs involved in being a caregiver, either paid or volunteer, is another way to increase motivation.

(8) Age Norms. — Age norms are widely shared beliefs about what behavior is expected of persons at various stages of life. These norms affect the motivation of older persons to participate in caregiving activities. To the extent that old age is viewed as a stage of life when individuals no longer have a responsibility to engage in work and service to others, the motivation of older persons to make the sacrifices required of caregivers is undermined. On the other hand, norms that older persons should be productive have the opposite effect. Therefore, attention to the social forces that lead to the development and maintenance of particular age norms is critical for understanding age-related changes in behavior. In contemporary society the mass media plays a significant role in socialization for old age. The conventional thinking of gerontologists, the experts in aging, also shapes how the role of the elderly in society is viewed. It behooves gerontologists to critically explicate ways in which aging is socially
constructed and to expose weaknesses in popular arguments that suggest existing age norms are either "natural" or inevitable.

**Variables Affecting Physical and Mental Health**

Physical and mental health affect the need for care receiving, and the key variables affecting health were discussed above (1. Health-related habits, 2. Organization of health care, and 3. Social support network).

**Variables Affecting Self-Care**

(4. Later-life learning — discussed above).

(9) **Living Arrangements.** — Living arrangements create environments that are more or less conducive for older persons to function independently. At one extreme is the nursing home environment, which discourages self-help and creates almost total dependency upon others. Recent discussions of assisted living (Kane & Wilson, 1993; Regnier, 1994) provide examples of how alternative living arrangements can increase the independence and control exercised by older persons with even serious disabilities. By making use of relatively simple technology, housing can be adapted in ways that allow older persons to live independently and to provide much of their own care. To a large extent, access to living arrangements that maximize opportunities for older persons to live independently is determined by social processes, such as Medicare and Medicaid rules, government regulation of facilities, and organization of community services.

**Variables Affecting Access**

(2. Organization of Health Care — discussed above).

(3. Social Support Network — discussed above).

(10) **Power.** — The power (ability to obtain desired services from others) of older persons is the final variable affecting access to care receiving. To the extent that older persons command economic resources or status in society, they are able to obtain services from others. There is significant inequality within each cohort, so that some individuals have greater power than others. There also will be changes in the average power of cohort members as it ages if social processes operate to reduce resources or status as persons grow older. Existing structures may produce a "Matthew Effect" where those entering old age with the most resources maintain or increase their power with age, while those with the least resources experience declines in power (Crystal & Shea, 1990; Dannefer, 1987). Increasing inequality with age means that in the oldest old stage of life, where rates of disability are highest, a relatively large portion of a cohort would lack personal resources that facilitate access to caregivers.

**Conclusion**

This article develops a theoretical perspective on the changing balance of care for cohorts as they age through later life. The strategy is to first recognize

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Figure 2. The critical social variables affecting balance of care through the proximate determinants.
that the balance of care at a particular age may be conceptualized as the difference between the volume of care given by cohort members and volume of care received. The volume of both care given and care received by cohorts is determined by four factors: physical and mental health, skills and knowledge, opportunities, and motivation. The volume of care received is determined by three factors: physical and mental health, self-care, and access. Since the volume of care given or received must operate through these proximate variables, it is possible to direct attention to the most salient factors influencing each of these proximate determinants. Ten social variables that were identified as important in this framework are shown in Figure 2.

Unless changes occur in the way cohorts age, the burden of caring for older persons in society will become a challenging political issue as the rapid aging of the population occurs after 2010. There is no reason, however, to expect that aging in the future will replicate the pattern of aging that currently exists. Contemporary aging occurs as particular cohorts advance through the life course within a particular social structure. Cohorts entering old age in the future will differ in size, composition, and history from cohorts that have entered old age in the recent past. Equally important, social structures that shape how individuals age — organization of health care, work, education, government, living arrangements, and families — are not static. A theory of aging should explicate the social mechanisms that influence the aging process, and thereby provide insight into how the shifting balance of care associated with aging could be altered for cohorts entering old age in the future. The framework developed in this article is meant to be a step in that direction.

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