

# Theoretical Perspectives for the Psychology of Aging in a Lifespan Context

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## INTRODUCTION

Most of the editions of the *Handbook of the Psychology of Aging* have contained a chapter on theoretical issues, some combined with some methodological issues and/or the history of geropsychology (Baltes & Willis, 1977; Bengtson & Schaie, 1999; Birren & Birren, 1990; Birren & Cunningham, 1985; Birren & Schroots,

1996, 2001; Dixon, 2011; Salthouse, 2006). In this introductory chapter some of the major theoretical perspectives in studying normal aging from a lifespan perspective are summarized. This discussion is begun by challenging the often-voiced assumption that pathology is an inevitably aspect of normal aging and then examples of theories of aging that cover the adult lifespan are described.

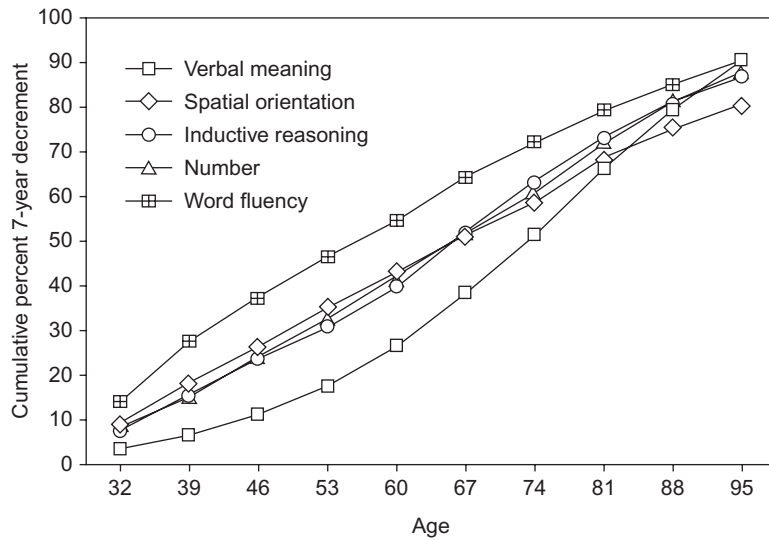


FIGURE 1.1 Cumulative proportion of significant decrement in different abilities occurring at successive ages from 32 to 95. Reproduced with permission from [Schaie \(2013\)](#).

## THE ROLE OF PATHOLOGY IN NORMAL AGING

From a lifespan perspective, many of the statements made by psychologists about normal development in the last third of life have been clouded by what can only be described as buying into common societal stereotypes that we now call ageism ([Hummert, 2011](#); [Schaie, 1988](#)). Such ageism seems to be informed by the assumption of universal declines in cognitive competence and the development of other undesirable psychological characteristics with advanced age. They have also been informed by clinicians' experiences in encountering primarily older clients with psychological problems rather than the large number of elderly whom we would describe as aging successfully. In a rapidly changing society we also continue to confuse differences between old and young that are a function of greater educational and other opportunity structures for the younger cohorts with age-related changes. This confusion leads to language in the scientific literature that interprets

age differences that reflect complex population differences as "aging decline" ([Schaie, 1993](#)).

## ASSUMPTION OF UNIVERSAL DECLINE

Negative stereotypes about the elderly are ubiquitous with respect to many domains of behavior and perceived attributes ([Hess, 2006](#)), even though some exceptions are found in attributed wisdom and altruistic behavior (cf. [Pasupathi & Löckenhoff, 2002](#)). Perhaps one of the most serious assumptions made by many psychologists is that of universal cognitive decline. While it is true that the proportion of individuals who show cognitive decline increases with each decade after the 60s are reached, it is equally true that many individuals do not show such decline until close to their demise, and that some fortunate few, in fact, show selective ability gains from midlife into old age. [Figure 1.1](#) shows data from the Seattle Longitudinal Study to document this point ([Schaie, 2013](#)).

The data showing that there is no universal decline with increasing age of behavioral effectiveness however should not be interpreted as the absence of biological deficits with increasing age. In fact, disease-free aging is an infrequent experience for only a lucky few (cf. Solomon, 1999). Indeed, effective health behaviors are significantly associated with optimal aging (Aldwin, Spiro, & Park, 2006).

## SUCCESSFUL, NORMAL AND PATHOLOGICAL AGING

It is readily apparent that there are vast individual differences in patterns of psychological changes from young adulthood through old age. Scrutiny of a variety of longitudinal studies of psychological aging (cf. Schaie & Hofer, 2001) suggests that four major patterns will describe most of the observed aging trajectories, although further subtypes could, of course, be considered (Schaie, 2008). These patterns would classify individuals into those who age successfully (the super-normals), those who age normally, those who develop mild cognitive impairment (MCI), and finally those who become clinically diagnosable as suffering from dementia.

The most common pattern is what we could denote as the *normal aging* of psychological functions. This pattern is characterized by most individuals reaching an asymptote in early midlife, maintaining a plateau until the late 50s or early 60s, and then showing modest decline on most cognitive abilities through the early 80s, with more marked decline in the years prior to death (cf. Bosworth, Schaie, & Willis, 1999). They also tend to become more rigid and show some changes on personality traits in undesirable directions (Schaie, Willis, & Caskie, 2004). Among those whose cognitive aging can be described as normal, we can distinguish two subgroups. The first include those individuals who reach a relatively high level of cognitive

functioning who, even if they become physically frail, can remain independent until close to their demise. The second group who only reach a modest asymptote in cognitive development, on the other hand, may in old age require greater support and be more likely to experience a period of institutional care.

A small subgroup of adults experience what is often described as *successful aging* (Fillit et al., 2002; Rowe & Kahn, 1987). Members of this group are often genetically and socioeconomically advantaged, they tend to continue cognitive development later than most and typically reach their cognitive asymptotes in late midlife. While they too show some very modest decline on highly speeded tasks, they are likely to maintain their overall level of cognitive functioning until shortly before their demise. They are also likely to be less neurotic and more open to experience than most of their age peers. These are the fortunate individuals whose active life expectancy comes very close to their actual life expectancy.

The third pattern, *MCI* (Petersen et al., 1999), includes that group of individuals who, in early old age, experience greater than normative cognitive declines. Various definitions, mostly statistical, have been advanced to assign membership to this group. Some have argued for a criterion of 1 *SD* of performance compared to the young adult average, while others have proposed a rating of 0.5 on a clinical dementia rating scale, where 0 is normal and 1.0 is probable dementia. Earlier on, the identification of MCI required the presence of memory loss, in particular. However, more recently the diagnosis has been extended to decline in other cognitive abilities and clinicians now distinguish between amnesic and non-amnesic MCI patterns. There has also been controversy on the question of whether individuals with the diagnosis of MCI inevitably progress to dementia, or whether this group of individuals represents a unique entity; perhaps one that could be denoted as *unsuccessful aging* (cf. Petersen, 2003).

The final pattern includes those individuals who, in early or advanced old age, are diagnosed as suffering from *dementia*. Regardless of the specific cause of the dementia these individuals have in common dramatic impairment in cognitive functioning. However, the pattern of cognitive change, particularly in those whose diagnosis at post mortem turns out to be Alzheimer's disease, is very different from the normally aging. When followed longitudinally, at least some of these individuals show earlier decline, perhaps starting in midlife. But other individuals may have become demented because of increased and sometimes profound vascular brain lesions.

## LIFESPAN THEORIES OF PSYCHOLOGICAL AGING

There have been few comprehensive theories of psychological development that have fully covered the period of adulthood (Schaie & Willis, 1999). The broadest approaches have been those of Erikson (1982), Erikson, Erikson, and Kivnick (1986), and Baltes (1997). Baltes' selection, optimization, and compensation (SOC) theory represents a dialectical lifespan approach. Psychological gains and losses occur at every life stage, but in old age losses far exceed the gains. Baltes considers evolutionary development incomplete for the very last stage of life, during which societal supports no longer fully compensate for declines in physiological infrastructure and losses in behavioral functionality (see Baltes, 1987; Baltes & Smith, 1999; Baltes, Staudinger, & Lindenberger, 1999). SOC, however, can also be seen as strategies of life management, and thus may be indicators of successful aging (Baltes & Freund, 2003). For a fuller exposition of SOC theory and review of relevant empirical studies, see Riedinger, Li, and Lindenberger (2006). The SOC theory has recently been expanded to a co-constructionist biosocial theory (Baltes & Smith, 2004; Willis

& Schaie, 2006; see below). Theoretical models limited to the domain of cognition have also been proposed by Schaie and Willis (2000), Willis & Schaie (2006), and Sternberg (1985). I will here describe more fully, the Eriksonian, and the Schaie and Willis stage theories, as well as the more recent co-constructive theory.

### Erikson's Stage Model

Traditional psychodynamic treatments of the lifespan have been restricted primarily to the development of both normal and abnormal personality characteristics. With the exception of some ego psychologists (Loevinger, 1976), however, Erik Erikson remains the primary theorist coming from a psychoanalytic background who has consistently pursued a lifespan approach. Although Erikson's most famous concept, the identity crisis, is placed in adolescence, the turmoil of deciding "who you are" continues in adulthood, and identity crises often recur throughout life, even in old age (Erikson, 1979). Moreover, Erikson (1982) takes the position that "human development is dominated by dramatic shifts in emphasis."

In his latest writing, Erikson (influenced by his wife Joan) redistributed the emphasis on the various life stages more equitably. He argued that the question of greatest priority in the study of ego development is "how, on the basis of a unique life cycle and a unique complex of psychosocial dynamics, each individual struggles to reconcile earlier themes in order to bring into balance a lifelong sense of trustworthy wholeness and an opposing sense of bleak fragmentation" (Davidson, 1995; Erikson et al., 1986; Goleman, 1988).

The *intimacy crisis* is the primary psychosocial issue in the young adult's thoughts and feelings about marriage and family. However, recent writers suggest that this crisis must be preceded by identity consolidation that is also thought to occur in young adulthood (cf. Pals, 1999).

The primary issue of middle age, according to Erikson, is *generativity versus stagnation* (McAdams & de St. Aubin, 1998; Snarey, Son, Kuehne, Hauser, & Vaillant, 1987). Broadly conceived, *generativity* includes the education of one's children, productivity and creativity in one's work, and a continuing revitalization of one's spirit that allows for fresh and active participation in all facets of life. Manifestations of the generativity crisis in midlife are career problems, marital difficulties, and widely scattered attempts at "self-improvement."

Successful resolution of the generativity crisis involves the human virtues of caring, giving, and teaching, in the home, on the job, and in life in general. In Erikson's view of ego development, the final years of life mark the time of the *integrity versus despair crisis*, when individuals look back over their lives (Haight, Coleman, & Lord, 1994) and decide that they were well ordered and meaningful (integrated) or unproductive and meaningless (resulting in despair).

Those who despair approach the end of life with the feeling that death will be one more frustration in a series of failures. In contrast, the people with integrity accept their lives (including their deaths) as important and on the whole satisfying. In a sense, ego integrity is the end result of the lifelong search for ego identity, a recognition that one has coped reasonably successfully with the demands of both the id and society (Erikson, 1979, 1982; Whitbourne, 1996). Once old age is reached it may be most advantageous for the person to rigidly maintain this identity (Tucker & Desmond, 1998).

The final stage of life includes an exploration of personal grounds for faith. Erikson points out that the aged share with infants what he calls the "numinous" or the experience of the "ultimate other." Its mother provided the latter experience for the infant. By contrast, the experience of ultimate confidence is provided for the older person by the confirmation of the distinctiveness of their integrated life and by its impending transcendence (Erikson, 1984).

A formal investigation of the progression through the Eriksonian stages from young adulthood into midlife has been conducted by administering an inventory of psychosocial development to three cohorts of college students, followed-up after 11 and 22 years (Whitbourne, Zuschlag, Elliot, & Waterman, 1992). This study showed not only inner psychological changes as postulated by Erikson, but also showed effects of exposure to particular historical, cultural, and social realities of the environment.

As higher stages were attained there also seemed further resolution of the earlier stages of development, suggesting a process of continuous reorganization, beyond the stage-specific issues confronted by the individual. In addition, this study raises the possibility that the sequencing of stages may not be unidirectional, and it further suggests cohort differences that implied less favorable resolution of ego integrity versus despair over the decade of the 1980s (Whitbourne & Connolly, 1999).

### Schaie and Willis' Stage Theory of Cognition

This theory uses findings from research on adult intellectual development to formulate eight adult stages. They argue that while Piaget's childhood stages describe increasing efficiency in the acquisition of new information, it is quite doubtful that adults progress beyond the powerful methods of science (formal operations) in their quest for knowledge. Therefore, if one is to propose adult stages, they should not be further stages of acquisition; but, instead, such stages should reflect different uses of intellect.

In young adulthood, for example, people typically switch their focus from the acquisition to the application of knowledge, as they use what they know to pursue careers and develop their families. This is called the *achieving* stage. It represents most prominently the application

of intelligence in situations that have profound consequences for achieving long-term goals. The kind of intelligence exhibited in such situations is similar to that employed in educational tasks, but it requires careful attention to the possible consequences of the problem-solving process.

Young adults who have mastered the cognitive skills required for monitoring their own behavior and, as a consequence, have attained a certain degree of personal independence will next move into a stage that requires the application of cognitive skills in situations involving social responsibility. Typically, the *responsible* stage occurs when a family is established and the needs of spouse and offspring must be met. Similar extensions of adult cognitive skills are required as responsibilities for others are acquired on the job and in the community.

Some individuals' responsibilities become exceedingly complex. For example, officials of churches, and a number of other positions need to understand the structure and the dynamic forces of organizations. They must monitor organizational activities not only on a temporal dimension (past, present, and future), but also up and down the hierarchy that defines the organization. They need to know not only the future plans of the organization, but also whether policy decisions are being adequately translated into action at lower levels of responsibility. Attainment of the *executive* stage, as a variation on the responsibility stage, depends on exposure to opportunities that allow the development and practice of the relevant skills (Avolio, 1991; Smith, Staudinger, & Baltes, 1994).

In the later years of life, beyond the ages of 60 or 65, the need to acquire knowledge declines even more and executive monitoring is less important because frequently the individual has retired from the position that required such an application of intelligence. This stage, *reintegration*, corresponds in its position in the life course to Erikson's stage of ego integrity.

The information that elderly people acquire and the knowledge they apply become a function of their interests, attitudes, and values. It requires, in fact, the *reintegration* of all of these.

The elderly are less likely to "waste time" on tasks that are meaningless to them. They are unlikely to expend much effort to solve a problem unless that problem is one that they face frequently in their lives. This stage frequently includes a selective reduction of interpersonal networks in the interest of reintegrating one's concern in a more self-directed and supportive manner (cf. Carstensen, 1993; Carstensen, Gross, & Fung, 1997).

In addition, efforts must be directed towards planning how one's resources will last for the remaining 15–30 years of postretirement life that are now characteristic for most individuals in industrialized societies. These efforts include active planning for that time when dependence upon others may be required to maintain a high quality of life in the face of increasing frailty. Such efforts may involve changes in one's housing arrangements, or even one's place of residence, as well as making certain of the eventual availability of both familial and extra-familial support systems. The activities involved in this context include making or changing one's will, drawing up advanced medical directives and durable powers of attorney, as well as creating trusts or other financial arrangements that will protect resources for use during the final years of life or for the needs of other family members.

Although some of these activities involve the same cognitive characteristics of the responsible stage, these objectives involved are far more centered upon current and future needs of the individual rather than the needs of their family or of an organizational entity. Efforts must now be initiated to reorganize one's time and resources to substitute a meaningful environment, often found in leisure activities, volunteerism, and involvement with a larger kinship network.

Eventually, however, activities are also engaged in to maximize quality of life during the final years, often with the additional objective of not becoming a burden for the next generation. The unique objective of these demands upon the individual represent an almost universal process occurring at least in the industrialized societies, and designation of a separate *reorganizational* stage is therefore warranted.

The skills required for the reorganizational stage require the maintenance of reasonably high levels of cognitive competence. In addition, maintenance of flexible cognitive styles is needed to be able to restructure the context and content of life after retirement, to relinquish control of resources to others and to accept the partial surrender of one's independence (Schaie, 1984, 2013).

Many older persons reach advanced old age in relative comfort and often with a clear mind albeit a frail body. Once the reintegrative efforts described above have been successfully completed, yet one other stage is frequently observed.

This last stage is concerned with cognitive activities by many of the very old that occur in anticipation of the end of their life. This is a *legacy-creating* stage that is part of the cognitive development of many, if not all, older persons. This stage often begins by the self- or therapist-induced effort to conduct a life review (Butler, Lewis, & Sunderland, 1998). For the highly literate and those successful in public or professional life this will often include writing or revising an autobiography (Birren, Kenyon, Ruth, Schroots, & Swensson, 1995; Birren & Schroots, 2006).

There are also many other more mundane legacies to be left. Women, in particular, often wish to put their remaining effects in order, and often distribute many of their prized possessions to friends and relatives, or create elaborate instructions for distributing them. It is not uncommon for many very old people to make a renewed effort at providing an oral history

or to explain family pictures and heirlooms to the next generation. Last, but not least, directions may be given for funeral arrangements, occasionally including donation of one's body for scientific research, and there may be a final revision of one's will.

## The Co-Constructive Perspective

Both neurobiological and sociocultural influences on development have long been recognized. Co-evolutionary theorists (Dawkins, 1989; Dunham, 1991; Tomasello, 1999) suggest that both biological and cultural evolution have occurred and that recent, cohort-related advances in human development in domains such as intelligence can be attributed largely to cumulative cultural evolution. Cultural activities impact the environment, thereby influencing mechanisms such as selection processes; and thus allow humans to co-direct their own evolution (Cavalli-Sforza & Feldman, 1981; Dunham, 1991). Baltes' and his colleagues' (Baltes, 1997; Li, 2003; Li & Freund, 2005) co-constructionist approach imposes a lifespan developmental perspective on co-evolutionary theory and provides principles regarding the timing of the varying contributions of neurobiology and culture at different developmental periods and across different domains of functioning. Three principles are proposed regarding the relative contributions of biology and culture influences across the lifespan:

1. Beneficial effects of the evolutionary selection process occur primarily in early life and are less likely to optimize development in the later half of life.
2. Further advances in human development depend on ever-increasing cultural resources. From a historical perspective, increases in cultural resources have occurred via cumulative cultural evolution and have resulted in humans reaching higher levels of functioning. At the individual level,

increasing cultural resources are required at older ages for further development to occur or to prevent age-related losses.

3. The efficacy of increasing cultural resources is diminished in old age, due to decline in neurobiological functions.

Li (2003) proposes a triarchic view of culture involving three aspects of culture that are related to the co-constructionist perspective: resource, process, and developmental relevancy. Culture as social resources involves the knowledge, values, and material artifacts accumulated by a society and transmitted to future generations; these resources continue to develop and change through cumulative cultural evolution (Tomasello, 1999). Expanding upon Li's triarchic view of cultural domains, Willis and Schaie (2006) view accumulated cultural resources as being represented by structural variables such as educational level, occupational status, and ability level. These variables reflect the individual's acquisition and accumulation of cultural knowledge and skills primarily during the first half of adulthood.

Culture as ongoing social process involves the routines, habits, and performances of the individual in daily life that take place in the individual's proximal developmental context and that are shaped by the momentarily shared social reality (Li, 2003). The third component of developmental relevancy suggests that the impact of particular cultural resources and processes on an individual is partially determined by the individual's developmental stage, which has also been termed the "developmental niche" (Gauvain, 1998; Super & Harkness, 1986).

The increased influence of neurobiological factors in old age is thought to be based in part on the assumption among evolutionary theorists that positive selection effects are most clearly manifest early in the lifespan and that the expression of deleterious genes in old age

has been less constrained by the evolutionary process (Finch & Kirkwood, 2000).

## SUMMARY AND OUTLOOK

This chapter started by discussing the role of pathology in the study of normal aging by critiquing the concept of universal decline with increasing age and by distinguishing between successful, normal, and pathological aging. Then the limited number of theoretical perspectives that address behavioral changes across the adult lifespan was reviewed and the aging aspects of Erikson's stage theory, and its extension to old age by Schaie and Willis, as well as the co-constructive perspective exemplified by Baltes and Li's SOC theory were described in greater detail.

Given the mushrooming interest of behavioral and neuroscientists in the interface of normal and neuropathological change in brain tissues and neural networks with age, we can expect much theoretical attention in the coming years on concepts such as neural and behavioral reserve, both in terms of neural mechanisms as well as the influence of behavioral factors on the maintenance of high-level neural functioning. And instead of the preoccupation with the prediction of neuropathology, greater interest is likely to develop in mechanisms which lead to slower rates of normal decline in successive cohorts and the retention of a higher level of function in greater proportions of the older population.

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