DOCUMENT RESUME

ED 375 324 CE 067 495

AUTHOR Wolf, Mary Alice
TITLE Older Adults: Learning in the Third Age. Information Series No. 358.
INSTITUTION ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, Ohio.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 94
CONTRACT RR93002001
NOTE 78p.
AVAILABLE FROM Publications, Center on Education and Training for Employment, 1900 Kenny Road, Columbus, OH 43210-1090 (order no. IN358, $7 plus $3.50 postage/handling).
PUB TYPE Information Analyses - ERIC Clearinghouse Products (071)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Adult Education; Adult Learning; Age Differences; *Aging (Individuals); Cognitive Processes; Constructivism (Learning); Coping; *Educational Gerontology; *Lifelong Learning; Literature Reviews; *Older Adults; Psychological Characteristics; Sex Role; Social Adjustment; Social Development; Socioeconomic Influences

ABSTRACT

This review examines and synthesizes literature about persons over 60--the Third Age--particularly as they engage in learning. It spans the literature of psychology, sociology, gerontology, education, and other fields, connecting them through four constructs: the inner life, cognitive changes of aging, psychosocial development, and socioeconomic factors. The first section discusses the construct of meaning-making, how individuals come to make sense of their changing worlds by creating personal schemata. A discussion of life review materials is presented. The second section focuses on the literature of cognitive changes related to aging. It includes conceptual and data-based literature on learning, memory, and adaptation and presents some implications for practitioners and suggestions for further focus on cognition and the area of self-management. The third section explores psychosocial development, the basis for contemporary models of growth. It analyzes a variety of materials on such topics as rites of passage and gender and identity. The fourth section discusses some socioeconomic factors of aging that affect the need for learning. Studies of education for self-sufficiency, health, and financial management are explored. A summary of the literature review and speculation about the direction and structure of the field of educational gerontology conclude the review. Contains 256 references and a list of resources for program development. (YLB)

Older Adults:

Learning in the Third Age

Information Series No. 358

Mary Alice Wolf

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Clearinghouse on Adult, Career, & Vocational Education

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
COLLEGE OF EDUCATION
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Columbus, OH 43210-1090

1994

Funding Information

Project Title:	ERIC Clearinghouse on Adult, Career, and Vocational Education
Contract Number:	RR93002001
Act under Which Administered:	41 USC 252 (15) and P.L. 92-318
Source of Contract:	Office of Educational Research and Improvement U.S. Department of Education Washington, DC 20208
Contractor:	Center on Education and Training for Employment The Ohio State University Columbus, Ohio 43210-1090
Executive Director:	Ray D. Ryan
Disclaimer:	This publication was prepared pursuant to a contract with the Office of Educational Research and Improvement, U.S. Department of Education. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
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Foreword

The Educational Resources Information Center Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE) is 1 of 16 clearinghouses in a national information system that is funded by the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This paper was developed to fulfill one of the functions of the clearinghouse—interpreting the literature in the ERIC database. This paper should be of interest to adult education and gerontology practitioners, administrators, and students.

ERIC/ACVE would like to thank Mary Alice Wolf for her work in the preparation of this paper. Dr. Wolf is Director of the Institute in Gerontology and Associate Professor of Human Development/Gerontology at Saint Joseph College, West Hartford, Connecticut. She is the author of numerous publications on various aspects of older adult learning, including the forthcoming ***Connecting with Older Adults: Educational Responses and Approaches*** with Paulette Beatty (Krieger Publishing). She has served on the editorial board of ***Educational Gerontology*** and as chair of the Education for Aging Unit of the American Association for Adult and Continuing Education.

The following people are acknowledged for their critical review of the manuscript prior to publication: D. Barry Lumsden, Professor, University of North Texas; David L. Boggs, Professor, and Virginia Richardson, Professor, the Ohio State University.

Publication development was coordinated by Susan Imel. Sandra Kerka edited the manuscript, and Janet Ray served as word processor operator.

Ray D. Ryan
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Executive Summary

The purpose of this review is to examine and synthesize literature about persons over 60—the Third Age—particularly as they engage in learning. The review spans the literature of psychology, sociology, gerontology, education, and other fields, connecting them through four constructs:

- The inner life—construction of reality, object relations, reminiscence and life review
- Cognitive changes of aging—memory, adaptation, self-management
- Psychosocial development—rites of passage, gender and identity, role changes
- Socioeconomic factors—the needs of different cohorts of older adults for self-sufficiency, health care, and financial management

A discussion of research directions and needs in gerontology addresses the need for more data on individual lives, learning needs, and motivations. The concluding section draws together the threads of the four constructs, suggesting that older people are a diverse group of individuals whose strong voices must be heard when planning and providing opportunities for learning and growth.

Within the framework of the demographics of learning and aging, print and organizational resources for program planning for education in the Third Age are presented in an appendix.

Information on learning in the Third Age may be found in the ERIC database using the following descriptors: *Age Differences, *Aging (Individuals), Cognitive Processes, Coping, *Constructivism (Learning), *Lifelong Learning, *Older Adults, Psychological Characteristics, Sex Role, Social Adjustment, Socioeconomic Influences, Social Development. Asterisks indicate descriptors that are particularly relevant.

At all levels, intelligence seeks to understand or to explain.
Jean Piaget
(1968, p. 5)

Overview

Purpose

Understanding older persons is akin to unraveling a magic skein of wool: the more you unravel, the more the wool changes in color and texture. You begin to see the finest delineations of structure and form, you admire the longevity and wholeness, yet you see that every so often the color and texture have changed. The strand is all of one piece. "This wool," you say, "is so much more complicated than I first thought!" In trying to understand older learners, you become increasingly aware of the idiosyncratic nature of human beings. You see change and growth, transformation and shift, yet the long and complex life is all of one piece; there is a discernible unity. One of the many paradoxes of human aging is that even as we grow and develop, we are uniquely ourselves (Fiske and Chiriboga 1990; Kaufman 1986; McCrae and Costa 1984; Neugarten 1977). We may develop different aspects of ourselves (Baltes 1993) as we grow older, but we keep our own personal and private characteristics: one skein of wool with many variations and events. Older people are the products of lifelong cognitive and affective development, environmental and historical shifts, age-related changes, ar. .ıner challenges. Their genetic and biological makeup determines their potential limits for their later years.

How can we explore this complex area—what Erik Erikson (1963) called the "harvest of life"—and connect it in a useful way to the field of adult learning? The purpose of this review is to examine and synthesize the literature about persons over 60 years of age—what is called the Third Age—particularly as they engage in learning. Such a discussion can contribute to an understanding of education and aging for scholars, practitioners, researchers, students, and gerontologists who are interested in exploring the multidisciplinary literature of theory and research.

The term "Third Age" comes from France where, in the 1970s, a program was developed for retirees called Les Universites du Troisieme Age. The underlying concept was that there are three ages (0-25, 26-60, 60 and up), each with unique educational opportunities.

This review synthesizes emerging ontogenic and sociogenic perspectives; it explores development, cognition, social adaptation, and implications for adult educators in staff development and in programming. Suggestions for future inquiry to enhance knowledge of the Third Ager are addressed. A selective resource guide is provided for readers who wish to implement specific programs or opportunities for education in the later years. This review proceeds with the caveat, however, that this is but a beginning to an illumination of a complex and fluid area of knowledge—not unlike that magic skein of wool.

Demographics Related to Learning and Aging

A realistic picture of the future population boom is essential to understanding learning in the Third Age. It is a fact of life that this is an aging society. There have always been elders in the culture, but this population is now burgeoning. In 1900, life expectancy was 49 years; today it is 75 (71.5 for men and 78.3 for women) (Atchley 1994; U.S. Bureau of the Census 1992). Persons over the age of 65 cast 22 percent of the votes in the 1990 elections (U.S. Bureau of the Census 1992). In 1900, 3 percent of the population (31 million persons) of the United States was over the age of 65; in 1994 the figure is 13 percent and represents over 32 million Americans alone! In 2030, this group will comprise 21.1 percent of the total population, approximately 66 million Americans (National Institutes of Health and National Institute in Aging 1993; U.S. Dept. of Health and Human Services 1994). This demographic shift will dramatically alter the collective societal experience.

The concept of a growing population of older persons challenges the nation as a whole. This is supported by the American Association of Retired Persons and Resources for the Future (1993). The change in economic structure that will accompany this demographic reality mandates a significant role for education through which elders will learn new skills for coping with age-related phenomena such as leisure, retirement, housing, health, death, finances, families, and political realities. Increased knowledge of activities leading to wellness throughout the lifespan will reduce the demand on health resources (NIH and NIA 1993) and illuminate the role that education will play in this growing arena. It can be assumed that individual elders and their families will seek learning experiences.

Constructs

A number of intriguing and related literatures have emerged that can be connected in a framework to explore motivation and experience of older learners. These discrete resources and literatures come from various disciplines and perspectives including psychology, sociology, gerontology, anthropology, education, political science, religion, and the humanities. This review connects several of them through "constructs" focused on the Third Age.

An Organizing Framework

This review discusses the literatures of the following related areas and their influence on educational gerontology:

- The inner life—construction of reality, object relations, reminiscence and life review
- Cognitive changes of aging—memory, adaptation, self-management
- Psychosocial development—rites of passage, gender, identity, and role changes
- Socioeconomic factors—the need of different cohorts of older adults for self-sufficiency, health, financial management

In each of these categories, a construct is developed to synthesize literature and theory across disciplines. A short discussion follows which suggests areas of further inquiry.

The first section discusses the construct of meaning-making, how individuals come to make sense of their changing worlds by creating personal schemata. A discussion of life review materials is presented.

The second section focuses on the literature of cognitive changes related to aging, a rich area for gerontologists. For, although one always hopes to grow wise with age, one is also aware of the potential diminution of faculties. This section includes conceptual and data-based literature on learning and memory and adaptation; it presents some implications for practitioners and suggestions for further focus on cognition and the area of self-management.

The third section explores psychological development, the basis for contemporary models of growth. It analyzes a variety of materials on such topics as rites of passage and gender and identity.

The fourth section discusses some socioeconomic factors of aging that affect the need for learning. Studies of education for self-sufficiency, health, and financial management comprise a growing body of data.

A summary of the literature review and speculation about the direction and structure of the field of educational gerontology round out the discussion. The appendix lists publications and organizational resources for program development.

The Inner Life

The first construct is personal meaning-making—"the inner life." Distinguishing between the "inner" and the "outer" life enables understanding of the motivation and meaning of adult learners. For this purpose, "inner life" is used to include cognitive processes, emotional or subjective states, awareness of mortality and spirituality. "Outer life," by contrast, suggests habits, choices of employment and course-taking, actual behaviors that make up daily lives. The two are not mutually exclusive—any more than is the distinction of heart and head—but intertwined and connected in everything people do.

Cognition and Interpretations of Reality

Historical roots of the modern-day understanding of the inner life begin with Jean Piaget (1955, 1968, Piaget and Inhelder 1969) the 20th century's genius of cognition, who delineated the process by which children understand reality and accommodate themselves to it. Piaget found that egocentric thought in young children goes inward and becomes our deepest experience of the world. This private narrative—an inner language—is driven by feelings. People have an *external* life (the way they behave among others), and an *inner* life (an often unconscious interpretation of this behavior) (Piaget 1955, 1969; Vygotsky 1978). In describing this phenomenon, Piaget wrote:

> There is never a purely intellectual action, and numerous emotions, interests, values, impressions of harmony, etc., intervene—for example, in the solving of a mathematical problem. Likewise, there is never a purely affective act, e.g., love presupposes comprehension. Always and everywhere, in object-related behavior as well as in interpersonal behavior, both elements are involved because the one presupposes the other. (Piaget 1968, pp. 33-34)

Distinguishing between the inner and outer life as the difference between what individuals *think* and what they *do* is a useful

starting point for adult educators to understand their learners better. Why, for example, do older learners attend adult education classes? Motivation for and experience of learning may reside in the deepest personal construct of meaning, or they may be the result of a free Tuesday evening. Learning is related to everyday needs as well as to subconscious development. In Piaget's terms, "object-related" behavior is directed at developmental needs (1955, 1968, Piaget and Inhelder 1969). People "study" where they are going, to whom they connect, and how they construct their world at the time. They refocus on their place in the world and what meaning they are making of an experience. This construct is pivotal in understanding development at *any* stage of life (Kegan 1982, 1994; Shanok 1993; Souvaine, Lahey, and Kegan 1990; Vaillant 1993; Vaillant and Koury 1993). Kohlberg and Ryncarz (1990) observe, "Understanding of our place in nature provides the way to active acceptance and love of life" (p. 200).

Object Relations and the Normal Growth Process

The following description of "object relations" helps to distinguish between "inner" and "outer" life. One "makes an object" of something or someone and relates to it. People go through life "making objects," attaching to and detaching from people, feelings, events. They objectify the former part of the self that they have outgrown. They say, "I am going through such and such a stage, learning how to achieve my goals and to meet my personal and vocational demands." Sometimes when individuals are detached from a previous situation or experience, they are said to be in transition from one form of making meaning to another. Educators (Daloz 1986; Fingeret 1991; Kegan 1982; Mezirow et al. 1990; and others) describe this phenomenon as a transformational process. It is often part of a true educational experience, a growing toward a more developed self.

An "object" is something to which people attach; often it is a part of themselves that they only now begin to discern. Kegan (1994) states, "'Object' refers to those elements of our knowing or organizing that we can reflect on, handle, look at, be responsible for, relate to each other, take control of, internalize, assimilate, or otherwise operate upon" (p. 32). Therefore, individuals are constantly moving in and out of interests, looking

at their past and creating their future; making objects is a major function of the inner world.

Learners are actively constructing their worlds even as they mirror the meaning or reality of their current lives. An example of this process may help to clarify this point. The earliest "object" is considered to be the parent; the infant sees the parent as attached to him or her until what Piaget called "object permanence" at the age of 6 months. Kegan (1982, 1994) has developed a system of personal growth based on variations in object relations. At each stage of development, the individual explores some aspect of the world; the transitions between these stages are sometimes restless periods of searching. Education often serves as a conduit for these transitions: participants enter the learning environment to "make an object of" a former stage of their lives and to "study" their own future. Journals of learners reflect growing consciousness of inner changes, transformations, and shifts in object relations (Berman 1993; Brookfield 1992; Daloz 1986; Mezirow et al. 1990; Wolf 1989, 1993).

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Older adults, too, "make objects." They may be moving into new areas of life: widowhood, leisure, caretaking of grandchildren or great-grandchildren. Their growth involves both loss and new directions. Their need for education will reflect what it is they wish to "study" (Baltes 1993; Beatty and Wolf forthcoming; Berg 1990; Colarusso and Nemiroff 1981; Cross 1982; Havighurst 1972; Hiemstra 1994; Labouvie-Vief 1990c; Lowy and O'Connor 1986; Nemiroff and Colarusso 1985; Peterson 1983). For older adults who undergo losses through the ill health or death of friends and loved ones, restoration of meaning through new ventures provides healthy passage. Transitions inherent in the aging body require new modes of finding meaning. Peck (1968) observed that—

> people who age most "successfully" in this stage, with little psychic discomfort and with no less effectiveness, are those who calmly invert their previous value hierarchy, now putting the use of their "heads" above the use of their "hands," both as their standard for self-evaluation and as their chief resource for solving life problems. (p. 89)

Further, a highly successful quality is cathectic flexibility, "the capacity to shift emotional investments from one person to another and from one activity to another" (ibid.). This describes the process of "making an object" of a past interest and turning to a new object. Here is what an 83-year-old woman says about the learning tasks she has set out for herself:

> I try to figure out what my life has been, who I am really. That's one of the reasons I read all this psychology. So, even at my age, I haven't given up the idea that I ought to continue hunting for something valuable, and perhaps that something is my own secret self. (Cottle 1980, p. 93)

Reminiscence and Life Review

The "object" some older adults "study" is themselves: their place in the world and, consequently, what has mattered about their lives. They study their own lives to set down a story as a legacy to future generations or simply to integrate the past and present: the "homework" of the inner self (Berman 1993; Butler 1963, 1982; Kaminsky 1984; Kastenbaum 1985; McMahon and Rhudick 1967; Moody 1984, 1990; among others). The role of reminiscence in the development of older people, aging and learning, and the related literature of programmatic responses are central to any bibliography of learning in the Third Age. Such a review must include basic theory and research on reminiscence in the development of older people and applied techniques for the adult educator.

The origin of this burgeoning genre of educational materials is the work of geriatrician Robert Butler (1963, 1982) whose ground-breaking piece, "The Interpretation of Reminiscence in the Aged," is now classic. Dr. Butler was the first director of the National Institute on Aging and also the first to look at "normal aging"—what really happens to people who are not institutionalized but who live autonomously in the community. A psychiatrist by training, he developed the theory that reminiscence in older persons is a natural and universal process of "life review": an evaluation of one's past experiences. He wrote, "I conceive of the life review as a naturally occurring, universal mental process characterized by the progressive return

to consciousness of past experiences and conflicts; simultaneously, and normally, these revived experiences and conflicts can be surveyed and reintegrated" (1963, p. 66). He further described the phenomenon:

> Old age is a period in which unique developmental work can be accomplished. . . . The old are not only taking stock of themselves as they review their lives; they are trying to think and feel through what they will do with the time that is left and with whatever material and emotional legacies they may have to give to others. (Butler 1982, p. 25)

Although not all older adults engage in the classic life review, an acceptance of reminiscence as normal and functional has changed the way gerontologists view recollection and reminiscence in late life. One consequence is the many programs and activities that welcome older persons' life stories. It behooves adult educators to explore the role that reminiscence may have in the inner life of older people and to be thoughtful about programmatic responses. They may provide memoir-writing workshops (Hateley 1982; Kaminsky 1984; among others), various other curricula (Merriam 1990), or traditional experiences that allow elders to connect on their own terms (Shuldiner 1992; Wolf 1985).

It behooves adult educators to explore the role that reminiscence may have in the inner life of older people and to be thoughtful about programmatic responses.

The theory and research of reminiscence as a normative process as well as discussions of programmatic responses have made a lively contribution to understanding learning in the Third Age. This literature contributes to an understanding of how such behaviors as course-taking, reading, learning, and other activities are driven by the "inner life." The concept of "life history" and telling one's story as a public activity driven by the "inner life" was developed by Barbara Myerhoff (1979) in ***Number Our Days***. As an anthropologist, she explored the meaning-making of a population of elderly Jews living in California, how they created a community, made meaning of their life histories, and marked life's journey. She developed "history clubs" where elders told anecdotes about things that mattered to them; these were tape-recorded and transcribed. By the early 1980s memory clubs were developing and life review interviews were being produced nationwide, and Myerhoff was inundated with requests for a national repository for the recorded materials. She suggested the following recipe to integrate these stories into everyday lives:

> Make a soup. Take the sweet ones, salty ones, leftovers. If you don't have hot water you use cold and you drink them and it sticks in the places in you between what you think and what you believe. (Myerhoff 1983)

Educators can benefit from a wide array of materials that emphasize techniques for conducting reminiscence with Third Agers. Many are highly refined and represent considerable effort and creative programming. Seminal work on the application of reminiscence and life review to learning includes that of Birren and Deutchman (1991), Butler (1963, 1982), Kaminsky (1984), Moody (1984, 1988b, 1990), and Spinkart 1988. LoGerfo's (1980-81) theoretical perspectives of life review and reminiscence differentiated among three types of reminiscence—"informative," "evaluative," and "obsessive." McMahon and Rhudick (1967) found that veterans visiting an outpatient clinic who reminisced were coping better than those who did not reminisce. They wrote, "There appears to be a complex interrelationship of physical and emotional factors at work which affects both memory and learning" (p. 69). Merriam (1989) found that elements of selection, immersion, withdrawal, and closure were involved in older adults' reminiscence. Related studies of individual populations and styles of reminiscence have explored the phenomenon (Kastenbaum 1985; Poulton and Strassberg 1986; Richter 1986; Schafer, Berghorn, Holmes, and Quadagno 1986).

Another body of literature is useful for applied work with older adults; it discusses techniques and ways of organizing reminiscence groups. These include the materials of Magee (1988a) who breaks down "listening" into categories and provides tools for aiding individuals and groups to develop a context for meaningful reminiscence. His case studies of families and religious groups provide the reader with guidelines for interpreting reminiscences. Another excellent source for pastoral settings is that of Mulhall and Rowe (1988), which includes specific curricula and worksheets based on adult education principles. Other applied curricula have been designed for specific perspectives such as nursing (Wysocki 1983), adult education settings (Wolf 1992b) poetry (Goldstein 1987; Kaminsky 1985; Lyman and Edwards 1989a,b; Magee 1988b), music (Byrne 1982; Olson 1984), drama (Huddleston 1989; Perlstein 1981, 1988), small

group experiences in community and long-term-care settings (American Association of Retired Persons 1989; Gardella 1985; Harwood 1989; Sherman 1987), therapeutic models (Giltian 1990; Waters 1990); computer-assisted life review (Reinoehl, Brown, and Iroff 1990), and BiFolkal kits, which provide modules of experience based on history.

Examples of BiFolkal kits are ***Remembering Fall, Remembering Farm Days, Remembering 1924, Remembering the Depression.*** They are available from BiFolkal Productions, Inc., Route 1, Rainbow Farm, Blue Mounds, WI 53517.

Some of the most exciting work in the application of reminiscence to learning environments can be found in Kaminsky's (1984) ***The Uses of Reminiscence.*** This edited collection contains philosophical roots of applied reminiscence and work with older adults (Marc Kaminsky, Harry R. Moody) and related curriculum with "how- to" suggestions for implementation of activities from writing to theater workshops (Grace Worth in "At the Center of the Story" and Susan Perlstein's "A Stage for Memory: Living History Plays by Older Adults). Particularly interesting are the materials edited by Kaminsky from Myerhoff's (1992) writings, and Birren and Deutchman's *Guiding Autobiography Groups for Older Adults* (1991). A direct and useful approach is available in *How to Tape Instant Oral Biographies* (1992) by Zimmerman.

Discussion

The construct of the inner life is useful because it recognizes that each person has a unique way of accommodating to the requirements of his or her universe. It is also used here to connect the constructive developmental perspective of Piaget and Kegan with its emphasis on object relations and meaning-making to the process of introspective reminiscence of Butler and Kaminsky. The result is a highly operationalized literature of practice within a meta-theory of cognitive development. Furthermore, the broad range of literature provides an optimistic image of aging, one that promotes growth rather than decline, education rather than loss. The Piagetian formula for intellectual and emotional awarenesses, which is hierarchical and supports ongoing meaning-making into old age, is the ideal of the wise elder. The ability to meet the challenges of life may depend on making sense of experience and integrating the "inner" and "outer" world. This, surely, was C. G. Jung's (1933) perception when he wrote, "A human being would certainly not grow to be seventy or eighty years old if this longevity had no meaning for the species to which he belongs" (p. 109).

The practice of integrating reminiscence into curricula should become a staple of gerontological education (Merriam 1990; Moody 1990). This extension of the ontological vision suggests that adults can expect some enlightenment and greater clarity with age rather than the stereotypical diminution of faculties.

Nonetheless, basic research still must be done to support the hopeful visions embraced in the largely anecdotal materials presented here. At this time there is no clear connecting path through this diverse assortment of studies and reports of practice from several disciplines. Yet, promising theories of Butler (1963, 1982), Kaminsky (1984), Moody (1976), and Myerhoff (1979) provide the philosophical underpinnings for the proposition that older people benefit through telling their stories. A corollary body of research might confirm the function that this process could provide to other generations: the wisdom of elders surely enhances the full human community.

Cognition and Aging

One of the most threatening aspects of aging for thinking people is the loss of cognitive ability. A wide range of materials has been developed on this topic. The ***Handbook of the Psychology of Aging***, edited by Birren and Schaie (1990), now in its third edition, represents the state-of-research in the psychological realm of aging. It is a highly regarded resource for academic gerontologists. The authors observe of the book: "While it is devoted primarily to the understanding of phenomena of aging, it is hoped that this volume will lead to an improvement in the conditions and quality of human life" (Preface).

The other volumes in the series are the ***Handbook of the Biology of Aging*** (Schneider and Rowe 1990), and ***Handbook of Aging and the Social Sciences*** (Binstock and George 1990).

Learning and Memory

The authors of this handbook note the increased amount of research in learning and memory in the past few years, particularly in the area of aging and memory. Of interest to educators are the chapters "Learning and Memory in Aging" by Hultsch and Dixon (pp. 258-274), "Interactions between Memory and Language in Old Age" by Light (pp. 275-290), "Intellectual Development in Adulthood" by Schaie (pp. 291-309), "Cognitive Competence and Expertise in Aging" by Salthouse (pp. 310-319), and "Creativity and Wisdom in Aging" by Simonton (pp. 320-329).

Hultsch and Dixon review 400 recently published works. They point out that age-related decline had been thought to occur in secondary memory (and less so in primary memory). However, recent research suggests that semantic tasks highlight abilities in secondary memory. Distinctions are made between "explicit" memory tasks (where memory loss does exist) and "implicit" memory tasks (where memory loss is found not to decline). "Implicit" memory consists of prior experience rather than a sense of having remembered.

Memory and its functions take on new interest for educational gerontologists. Questions begin early in middle age: "Am I aging? I seem to be so forgetful these days!" Educators often hear that older learners are loath to test themselves in classrooms where they might display perceived losses (Hill and Vandervoort 1992). Processes of recall and retrieval have been somewhat slowed by age (Ellis, Palmer, and Reeves 1988; Greenberg and Powers 1987; Willis 1990). Indeed, as Light (1990) states in her analysis of memory, research findings indicate that older adults do demonstrate some loss of cognition when they do not properly encode new information. The interaction of language and memory leads to shifts in comprehension. With diminishment of reaction time, comprehension, and retention, older adults tend to process—encode and retrieve—information differently than younger persons (Light 1990). Communication is at the heart of impaired memory in old age and shared meaning is essential if people of different generations are to talk to and understand each other. Furthermore, it is possible that older adults encode more generally than do younger persons. This fact accounts for a perceived diminution in retrieval and for what other cognitive theorists have referred to as "overload": the individual simply does not wish to attend to information that does not apply to the here and now (Datan 1984; Labouvie-Vief 1980, 1990b; Poon, Rubin, and Wilson 1989).

Older adults tend to process—encode and retrieve—information differently than younger persons. Crystallized intelligence is found to improve with age. Fluid intelligence declines.

Adaptation

Light (1990) suggests that a basic difference in type of intelligence may explain language and memory deficit. It is known that two types of intelligence, fluid and crystallized, are responsible for variations in intelligence. Crystallized intelligence (the ability to create analogies, verbal comprehension, assessment based on education) is found to improve with age. Fluid intelligence (basic ability to respond with speed to new tasks) declines (Baltes 1993; Cattell 1963; Horn 1975, 1982; Schaie 1990a; Schaie and Willis 1991). A product of this shift can often be that real-life events hold more interest than abstract problem solving for those older adults who screen out certain facts and events. Information about species of whales, for example, so dear to the life of an 11-year-old, may be of scant interest to an older person, who chooses to be inattentive or disregard such information as useless "baggage" in an overloaded schema.

How can these data be used to understand the Third Ager's learning needs? Perhaps the answer lies in recognizing the abilities that they do possess. Schaie (1990a), a leader in research on cognition and aging, posits that theories of intelligence must be "multidimensional in nature" (p. 292) and that research should be based on longitudinal studies. He suggests that measures of intelligence include spatial orientation, inductive reasoning, and fluency. When these characteristics are accounted for, "on average, there is gain until the late 30s or early 40s are reached, and then there is stability until the mid-50s or early 60s are reached. . . . Beyond age 60, 7-year decrements are statistically significant throughout" (p. 296). However, in applied educational activities, "depending upon the age group, from 60 to 85 percent of all participants remain stable or improve on specific abilities" (p. 296). Functioning at a stable intellectual level, then, is related to one's continued involvement in cognitive activities (Berg 1990; Datan 1984; Schaie 1988, 1990b). Adult educators might share these findings with older adults who fear the loss of intelligence with age: it is, again, a use-it-or-lose it motivation for continued learning and intellectual stimulation.

Similarly, Simonton (1990) differentiates between late-life characteristics and those linked to younger persons. Both wisdom and creativity are hallmarks "of our species to innovate, to change the environment rather than merely adjust to it in a more passive sense" (p. 320). Older persons, he concluded, may lose creativity but gain wisdom. Labouvie-Vief (1980, 1990a,b,c) has argued that older adults' cognitive development is adaptive and instrumental in dealing with life situations.

Salthouse (1990) observed that in research findings older adults who perform well in everyday situations have adaptive strategies for successful functioning. Competence, indeed, is a highly regarded attribute by older persons. Mnemonic devices, strategies that train the participant deliberately to commit to memory names, lists, and facts, have been found to be useful in promoting memory retention (Baltes 1993; Datan 1984; Labouvie-Vief 1990a,b; Light 1990; Schaie and Willis 1986; Schaie, Willis, Hertzog, and Schulenberg 1987). Such educational intervention may be appropriate for practitioners working with older adults who declare themselves forgetful (Greenberg and Powers 1987; Lerner 1990; Rowe 1987).

Self-management

Another perspective helps to explain how older people continue the process of adaptation that is basic to the inner self as described by Piaget (with Inhelder 1969). It appears that humans automatically reorganize the cognitive realm to meet the demands of the environment. Baltes (1993) proposes the concept, for example, of "selective optimization with compensation" (p. 59) in older adults. This involves renewed "cognitive aspects of the self, self-development, and self management" (p. 581). An interesting example of this adaptive mechanism can be found in ***Enjoy Old Age, A Program of Self-Management*** (1983) by Skinner and Vaughan. Skinner, the behaviorist, provided advice to older adults on adaptation and self-management, exploring minutia of daily life (keep an umbrella by the door) and making the following admonition to his cohorts:

> We also tend to go on thinking in old ways just because we are committed to positions that once seemed more valid than they are now. Old scholars, scientists, philosophers, political figures, and others often go on defending views they held when they were young even though the only reason to do so is that adopting new views may appear to mean an admission of past error, a loss of prestige or position. Something of the sort holds for everyone. A change of opinion often seems like an admission of error, but the old opinion may have been right enough at the time. (p. 72)

Skinner displays the "pragmatics" of self-construction and self-transformation of which Baltes (1993) writes, "not unlike the area of wisdom. Our selves have a remarkable level of adaptive capacity for resiliency and maintaining a positive sense of self" (p. 592). This resiliency, too, is evidence of adaptation or what Vaillant (1993) calls "adaptive creativity."

Discussion

"The Brain," observed Emily Dickinson, "is wider than the Sky." Perhaps the widest expanse in the literature of cognition in the past 20 years has occurred in the area of measurement

versus adaptation. On the one hand, the aging mind loses some capacity to process information; on the other hand, there is an increase in the elder's capacity to make sense of things. This, again, reflects the paradox of the earlier statement that the more one seems to know, the less one actually knows.

Historically, psychometric descriptions of change in persons over the age of 65 presented a picture of deficit. However, a reevaluation of previous assumptions is underway in light of a recognition of the creative and adaptive facilities in later life. The relatively recent research on fluid and crystallized intelligence and the reliance on longitudinal as opposed to cross-sectional samples for data-gathering have refocused the discourse about cognition to recognize that older adults do, indeed, have the capacity to learn. This is particularly true of those persons who believe in the disuse maxim or who have a life-long propensity to seek learning. In these persons, learning can continue. Schaie and Willis (1991) write, "It's possible that healthy individuals who maintain an active intellectual life will show little or no loss of intellectual abilities even into their eighties and beyond" (p. 319).

There are profound commonalities in the data-based research studies: older adults who continue to learn, to practice cognitive strategies, and who do not fall victim to undue anxiety (Hill and Vandervoort 1992) can retain adequate cognitive functioning. Nonetheless, *stimulus and response* depend on *throughput*. In the aging person, one or all three areas may be diminished. Sensory diminishment in the form of hearing and visual loss may impair learning. Medical interventions including drugs and prosthetic devices may diminish reaction time through affecting each element (*stimulus* and *response* because one loses *sensory* affect, *throughput* because drugs affect perceptions.) Consequently, as most empiricists indicate, there is some decline with aging.

As if for balance, another group of researchers emphasize the cognitive aspects of creativity and wisdom, and validate older persons' increased capacity to balance ambiguity. Vaillant (1993) suggests that with insulation of nerve fibers "into the third decade of life . . . neurobiological complexity of the brain continues to evolve" (p. 327). And, at another end of the ontogenic-sociogenic continuum is the work of Labouvie-Vief (particularly 1980, 1990b). She proposes that intelligence and

memory are adaptive and that the nature and requirements of intelligence and memory change with old age, providing opportunities to develop other adaptive skills equal to the needs of life, "a kind of intelligent pragmatism" (1980, p. 7). In making inferences and in resolving complex problems, older adults are found to excel. Their direction is away from concrete logic and they process both "propositional *and* psychological structures" (Adams and Labouvie-Vief 1986, p. 24). This is in keeping with the metaphor that, although the hardware may decline, the software adapts (Baltes 1993).

The central question, then, for educators is not what is *lost*, but what is *gained* in cognition in the Third Age.

The central question, then, for educators is not what is *lost*, but what is *gained* in cognition in the Third Age. As Piaget observed, all learning is adaptive. The human being seeks "accommodation." Adult educators' task is to ask: What skills are needed, and how can we provide learning opportunities to respond to these needs of older adults? This is a fruitful arena for discourse and inquiry.

Psychosocial Development

The notion that people are all moving through an orderly ontological and sociological maze permeates the literature of psychosocial development and may give direction to educational gerontologists. In this vein, constructive developmentalism is fundamental for a framework of gerontological education. For example, when adults ask, "How do we mark our changes by learning?" they find prescriptions based on tradition and adaptation to life such as that of Confucius:

> The Master said, At 15 I set my heart upon learning.
> At 30, I had planted my feet firm upon the ground.
> At 40, I no longer suffered from perplexities.
> At 50, I knew what were the biddings of heaven.
> At 60, I heard them with docile ear.
> At 70, I could follow the dictates of my own heart; for what I desired no longer overstepped the boundaries of right. (Levinson et al. 1978, p. 326)

Social, psychological, and biological forces interact to determine how individuals respond to their environment throughout life. People do not stand apart from their society: they are daily confirmed and reconfirmed as members of a group with age-appropriate demands and roles. Although each life is, of course, unique, each life is also similar (Bardwick 1980). Some current research on adult development, gender, and role change is reviewed to highlight the need for a range of educational opportunities available through the lifespan and, particularly, the Third Age. It is noted, however, that reliance on a linear developmental focus may, in fact, limit this range of response.

Rites of Passage

"The life of an individual in any society is a series of passages from one age to another," observed Van Gennep:

> . . . life comes to be made up of a succession of stages with similar ends and beginnings. . . . For every one of these events there are ceremonies whose essential purpose is to enable the individual to pass from one defined position to another which is equally well defined. (Van Gennep 1960, p. 203)

What are the "ceremonies" of late life? Certainly retirement, new vocational situations, grandparenthood, great-grandparenthood, changes in housing, adaptation to losses, and health-related phenomena. Fisher (1993) has delineated five stages of transition in older adults: "continuity with middle age," "early transition," "revised lifestyle," "later transition," and "final period." Each stage, writes Fisher, is marked by principal events and adjustments to environmental changes. As an example of successful adaptation, one of his interviewees said on his 72nd birthday, "I'm having the time of my life. I can go as I please, do as I please. I can buy anything I want. It's just marvelous" (p. 84).

The Eriksonian (1963, 1981, 1982, 1986) model of development remains the major theoretical underpinning of the study of human development/gerontology today and sets the stage for a discussion of the quality of life available in old age. In Erikson's model, periods of stability are interrupted by transitional crises. These crises are marked by psychosocial tasks with which individuals struggle. Adulthood is marked by the need to achieve intimacy (and avoid isolation), to be generative (as opposed to stagnant), and to achieve ego integrity (and ward off despair). In a series of reports from a longitudinal study of men from ages 27 to 65, Vaillant has found that sustained mental health in older men was related to forming connections and flexibility (Peterson, Vaillant, and Seligman 1988; Vaillant and Vaillant 1990); Goodenow (1986), in a study of life span development and psychological well-being in women, found intimacy needs did not decline with age. Kivnick (1993) elaborates on the model:

> Each theme comes to ascendancy at one stage or another. . . . But all themes are operational at every stage in the life cycle. . . . At each stage throughout the life cycle, themes are balanced or "worked on," as they are enacted through involvement in everyday feelings, activities, dreams, relationships, and more. (p. 15)

It is evident, then, that older adults are continually reworking developmental tasks and will seek opportunities for healthy mastery of these tasks (Kivnick 1993; Reker, Peacock, and Wong 1984; Vaillant 1993; Vaillant and Koury 1993). Educational opportunities can maximize the potential of all participants, whether through direct intervention such as literacy skills, or indirect support such as vocational retraining, computer mastery, or enhancement of interpersonal skills (Merriam 1984).

Although constructive developmentalism (Kegan 1982, 1994; Souvaine, Lahey, and Kegan 1990) is a focus of the 1990s, the idea that people move through a linear process of inner and outer life is age old. The imagery is hierarchal: humans begin with raw perceptions, the need to connect and to trust. If they proceed at the orderly Eriksonian (1963) rate, they grow into adulthood and old age with expected psychosocial roles and tasks. However, there is a built-in caveat to this developmental paradigm. Other ways of constructing lives exist. Cross-cultural observations (Holzberg 1982; Keith 1990; Markides and Mindel 1987; Shanok 1993; Stoller and Gibson 1994, among others) provide further insights into social development, and Courtenay (1994) has questioned the use of adult development models in educational contexts. There is certainly a need to explore more circular modes of development as well as collect empirical evidence of variations within cultures. For example, recent studies of female development describe a less "orderly" progression marked by attachment, connection, and care (Jordan, Kaplan, Miller, Stiver, and Surrey 1991; Turner and Troll 1994). It is worth looking at current theory of gender development for insights into this phenomenon.

Methods for collecting information about these various ways are discussed in the last section of this review.

Gender and Identity

Cooper and Gutmann (1987) observe that developmental stages may be "event-related rather than age-related, following such occurrences as marriage, birth of the first child, launching of the last child, or retirement" (p. 347). In cross-cultural research Gutmann (1964, 1975, 1987) and Gutmann and Neugarten (1964) found that men and women developed in new ways after what is referred to as the "parental imperative." In late middle age, Gutmann hypothesized, when the children are no longer in

the home, gender stereotypes relax. Men, he states, no longer need play the role of "achiever" or "aggressor." They allow their own "feminine characteristics" to emerge and can be comfortable with nurturing and interpersonal development. Women, on the other hand, can "exert some of the masculine qualities of assertion and executive capacity they had previously had to repress" (Cooper and Gutmann 1987, p. 347). When they are no longer responsible for children in the household, women are freer to engage in what Gutmann calls "active mastery," to develop characteristics that might have been considered "masculine." One woman described this shift (which Cooper and Gutmann refer to as the post-empty nest shift) as follows: "There was some secret part of me that was locked away and then, at that time, was freed" (Cooper and Gutmann 1987, p. 351.

Age and Shifting Roles

Gutmann (1987) further suggests that new roles are developed by both older men and older women. In several cultures, men become the elders and live lives of standard-bearers, supporting the development "toward greater female dominance in later life" (Gutmann 1975, p. 176). Gender, then, is seen as related to time and place in life, and not to any innate qualities that are distributed to men or to women (Rossi 1985).

One clear indication of gender research is that older men wish to engage in affiliative and nurturing roles (Hyde, Krajnik, and Skuldt-Niederberger 1991). When they explore aesthetics, participate in discussions of family, and engage in other activities previously considered as "feminine domains," they are not losing their masculinity: they are developing the unused sides of their personalities. Jung observed this shift in 1933:

> There is an interesting report in ethnological literature about an Indian warrior-chief to whom in middle age the Great Spirit appeared in a dream. The spirit announced to him that from then on he must sit among the women and children, wear women's clothes and eat the food of women. He obeyed the dream without suffering a loss of prestige. This vision is a true expression of the psychic revolution of life's

noon—of the beginning of life's decline. Man's values and even his body tend to undergo a reversal into the opposite. (p. 107)

And the women? Gutmann (1964, 1975, 1987) and Huyck (1990, 1994) propose that gender stereotypes are reduced in late middle age: some are threatened and others are liberated. Women, suggests Carol Gilligan (1993), may begin to "reexperience their own voices," a process that allows them to become more authentic and less alienated. Feminist theorists (notably Bardwick 1980; Gilligan 1993; Jordan, Kaplan, Miller, Stiver, and Surrey 1991) believe that women have been socialized in adolescence to adapt to others' expectations of femininity. They practice caretaking, always cognizant of others' affiliative demands. With midlife, the women reclaim earlier characteristics and assertiveness or, as Gilligan (1993) says, "their voices." This, she observes, is the hopeful nature of development. Support for older women to discover their own true selves past middle age may come in the form of learning activities, new directions, and a focus on policy that advances roles of mature women who may wish to try new ventures (Cooper and Gutmann 1987; Datan, Rodeheaver, and Hughes 1987; Friedan 1993a,b; Vaillant 1993; Vaillant and Koury 1993).

Huyck (1994) found that late middle-aged women described themselves as "feminine" and "nearly half of the women described some way that they had expanded on their basic feminine gender style to include aspects that they themselves regarded as 'masculine'" (p. 218):

> Younger women are seen as particularly concerned about preserving relationships and willing to trade compliance for maintenance of a valued relationship; older women are regarded as more assertive and feisty, willing to risk the rupture of a relationship in order to assert their own priorities. (p. 213)

Modification of the gender stereotypes does not appear to threaten older women. In a recent ethnographic study (Wolf, in preparation), a 70-year-old woman lamented her husband's attitude and physical condition following a debilitating stroke, saying, "He used to be so big in my eyes. And I have to learn how to be strong so I don't do too much for him and take away

his dignity. But I'm doing everything for the house and the car." For older women who feel competent, observes Huyck (1994), there is a "balance that keeps them feeling securely feminine" (p. 219). Friedan (1993a) declared, "I just say to you, look at the strengths, look at the adventure, look at the uncharted territory, as we really take on the *full* complexity of an age that can liberate us from gender masks" (p. 7). Future cohorts, of course, may experience this shift differently, as changes in social roles gradually occur (Atchley 1994; Bardwick 1980; Giesen and Datan 1980; Levinson 1987, 1988; Sontag 1975). Furthermore, there is little research on gender shift in cross-cultural populations (Gibson 1994), within communities where women have not followed traditional roles (Wolf 1990), and never-married women.

Educational Responses

What many of today's older adults need are practical and aesthetic experiences that support their developmental mandates: for women, courses in tax returns, investments, business and travel; for men, experiences in story-telling and history, personal development and spiritual development; for both, opportunities to be generative through mentoring, counseling, and pastoral ministry. Strom (1988) and Strom and Strom (1990, 1993) recommend a course in grandparenting; Gold (1985), Jones (1986), and others suggest intergenerational projects; Hermans (1992) and Tappan (1992) suggest narratives; Stokes and Pankowski (1988) propose a television documentary protocol, and Shuldiner (1992) suggests experiences in the humanities. Giesen and Datan (1980), in a study of growing competence in older women, found the acquisition of business skills, even leading to full-time work *after* their husbands' retirement, to be a context for self-development. Knowles (1987) suggests that learning for older adults be problem centered: gender shift mandates may require new skills and personal task orientation.

What many of today's older adults need are practical and aesthetic experiences that support their developmental mandates.

Clearly, there is much to learn in the Third Age. Individuals must explore ways to reorganize life's tasks, which are to learn in youth, work in adulthood, and recreate in retirement. Gerontologists (including Datan, Rodeheaver, and Hughes 1987; Moody 1986; Neugarten and Neugarten 1986; Riley 1993) now

recommend breaks in the traditional order. Nearly 25 years ago Robert Havighurst (1972) declared that life patterns should include mixtures of work, learning, and leisure. Indeed, it is no less appropriate today. Manheimer and Snodgrass (1993) found that, in a group of retired adults attending leadership training at a center in North Carolina, 78 percent turned to volunteerism. They worked an average of 9.3 hours each week as public school tutors, in the Red Cross, and in synagogues, retirement communities, and adult day-care centers. Clearly, older adults who explore new options in later life are generative and creative. Manheimer (1992) explores "creative retirement" as a mandate of life for the Third Age.

Discussion

Some of the issues related to the theory and research of rites of passage, identity, and gender shift emanate from the nature of the traditional developmental paradigms, Freudian and Eriksonian. The literature reflects a bias toward predetermined direction in development (the ontogenetic). Erikson (1963) observed, "The underlying assumptions are . . . that the human personality in principle develops according to steps predetermined in the growing person's readiness to be driven toward, to be aware of, and to interact with, a widening social radius" (p. 270). The individuals studied—including those in Gutmann's cross-cultural populations—manifest strikingly homogenous characteristics. This is true in longitudinal *and* cross-sectional data. However, *not all individuals or groups* reflect these characteristics. Research on minority populations indicates that the gender demarcations vary considerably. Gibson (1994) found, for example, that—

> older black men and women were not only similar in work and retirement, but in other social and psychological characteristics as well and in this way may differ from their white counterparts, among whom gender is more of a discriminating factor. (p. 126)

Another concern is the limit of a short review in this wide domain. This review presents only a sample of developmental theory and research. Of further interest, for example, is

the area of consistency of personality and its implications for an understanding of psychosocial development. An intriguing compilation of various longitudinal analyses of populations—with varying degrees of uniformity—indicates that personality structure is lifelong (Fiske and Chiriboga 1990; McCrae and Costa 1984, 1990; Neugarten 1977; Vaillant 1993). Although people grow and develop, they retain their personal characteristics.

Education is a major opportunity for Third Agers if it can meet the most pressing needs for a particular stage by a particular individual.

The most common problem, however, with assertions based on the literature of psychological development is the lack of a conceptual scheme to unite them. This is as much a flaw for reviewers as it is an opportunity. The challenge for the field is to embrace a wide perspective of many truths and no one center for knowledge. The challenge for practitioners and scholars in educational gerontology is to connect fragmented theory and multiple assertions to the world of practice. This challenge is highlighted by the common thread throughout the literature that, with aging, many of the shifts—in work, family, health—provide a window for Third Age development and identity. Education is a major opportunity for Third Agers if it can meet the most pressing needs for a particular stage by a particular individual. Again, the goal is to balance both the inner and outer life through ongoing adaptation and a recognition of the unique characteristics of each Third Ager.

Socioeconomic Factors and Aging

This construct connects a multidisciplinary collection of materials that address socioeconomic factors for growing numbers of older adults. Educational planners will be hard-pressed to meet the extraordinary diversity of learning needs triggered by a demographic boom. The following section reviews resources and research that will aid the educational community in meeting this challenge.

A Context for Diverse Needs

There remains no better model relating age and need than that of Abraham Maslow (1970). Throughout the later years of life, individuals will seek creative ways to order their lives, find meaning, satisfy safety and physiological needs, and achieve self-actualization. They will need to understand changing family roles, accept age-related losses, and review social commitments (Courtenay 1990). It has been well observed that older people do turn to education to explore advocacy, community problems, and financial management. Much of this self-directed problem-solving education has been satisfying and successful for older adults (Boggs 1992; Brockett 1985; Long 1993).

The phenomenon of self-directed learning as defined by Tough (1979) and studied in older adults by Hiemstra (1976) is pivotal to education in the Third Age. It is the ability of learners to accept their own authority in the educational context: to be independent consumers of knowledge. Although older adults vary widely in their educational backgrounds and self-directedness is not a universal attribute (Cross 1981; Merriam and Caffarella 1991), anecdotal evidence indicates that it has potential in addressing older adults' needs (Hudson 1991;

Peterson, Thornton, and Birren 1986; Wolf 1985, 1992b). With some outreach and enhanced learning climates, educational situations can make the difference between stereotypes in aging and *empowerment* of older adults (Goodwin-Johansson 1988; Rodin, Schooler, and Schaie 1990; Wolf 1989). Recommended readings in the implementation of techniques include Candy's ***Self-Direction for Lifelong Learning*** (1991), Hiemstra and Sisco's ***Individualizing Instruction: Making Learning Personal, Empowering, and Successful*** (1990), Brockett and Hiemstra's ***Self-direction in Adult Learning*** (1991), Piskurich's ***Self-directed Learning: A Practical Guide to Design, Development, and Implementation*** (1993), and Brookfield's ***The Skillful Teacher*** (1990), which is helpful in designing challenging critical incidents for learning situations.

Self-sufficiency, the ability to remain in control of one's life, is a prime motivator for adults of all ages. Interestingly, older individuals who become deprived of this "locus of control" have been found to be especially vulnerable to illness and often to be passive recipients of others' care (Beatty and Wolf, forthcoming; Langer and Rodin 1977; Rodin and Langer 1977). Learning for exercise and health maintenance is essential (Deobil 1989; Hasselkus 1983; Rowe 1987). Education for continued self-sufficiency is a mandate as more and more older persons seek to remain in their own homes and are likely to continue to do so (Dekker 1993; Greenberg 1993). Education for vocational, retirement, health, housing, and other concerns must include a picture of the numbers and cohorts of older people (Hiemstra 1994). Future generations of older persons will have different learning needs (Atchley 1994; Schaie and Willis 1991). Their educational levels will be higher, more women and minorities will seek adult education opportunities, and their health and economic status will be higher than those presently over 65 (Baker 1994).

Self-sufficiency, the ability to remain in control of one's life, is a prime motivator for adults of all eges.

Cohort Differentiation

Growing numbers of adults in the Third Age represent several cohorts. A cohort is a group of individuals born within a decade or other designated period. The period during which people experience childhood, develop values such as saving,

working, child-rearing, and receive education sets the stage for a lifelong perspective (Elder 1974, 1981, 1991; Hagestad and Neugarten 1985). An invaluable resource in the discussion of cohorts is ***Generations*** by Strauss and Howe (1991). The authors trace the impact of historical features on each generation of Americans and specify the ways in which members of cohorts (generations) can expect to meet and satisfy individual and community needs. Another dramatic depiction of the changing needs of the American adult is Dychtwald and Flower's (1990) *Age Wave*. Here is a sample of their perspective in describing the changing face of Third Agers:

> The Age Wave is lifting the major components of adult life—family, education, work, leisure, and community service—free of their traditional moorings. *We are witnessing the dissolution of the traditional linear life plan. In its place, a much more flexible arrangement, known as the "cyclic life plan," is emerging.* (p. 93)

Indeed, new ways of approaching aging, known as "successful aging" in medical gerontology (Rowe 1987; Rowe and Kahn 1987) and "productive aging" in political gerontology (Commonwealth Fund 1993) are a part of understanding the changing role of the adult in this culture. Following are some multidisciplinary approaches to this phenomenon that are intriguing and futuristic.

Bass, Kutza, and Torres-Gil, in ***Diversity in Aging, Challenges Facing Planners & Policymakers in the 1990s*** (1990), examine the challenges to policy dictated by the demographic shift. In their introduction, the authors state, "*The graying of the major industrial nations* is upon us, and we have just begun to grapple with its implications. In the next century, one of every four persons in the United States—that is, nearly one in every three adults—may be 65 years old or older" (p. xiii). The need to retrain for careers is indicated by the research of Kreitlow and Kreitlow (1989) and others, to train in the art of grandparenting (Strom 1988), and to train for leadership (Manheimer and Snodgrass 1993).

Educational Responses

Participation of older adults in learning has been found to raise self-esteem (Fisher 1988), support independence in housing (Feingold and Werby 1990), improve cognitive skills (Willis 1990), develop critical thinking (Durr, Fortin, and Leptak 1992), and make them effective patients (Hasselkus 1983). It can be unanticipated (Stokes and Pankowski 1988), affiliative (Kidder 1993; Strom and Strom 1990), pragmatic (Baltes 1993; Datan 1984; Erikson, Erikson, and Kivnick 1986; Hudson 1991; Labouvie-Vief 1980) or self-sustaining (Langer and Rodin 1977; Rodin and Langer 1977; Rodin, Schooler, and Schaie 1990; Syme 1990). Lowy and O'Connor (1986) stress the potential value to society of the development of workers, caretakers, political thinkers, and intergenerational activists. Fischer, Blazey, and Lipman (1992) explore new learning models for Third Agers; and the American Association of Retired Persons (1993) has developed a ***Directory of Learning Opportunities for Older Persons***. McClusky (1990) promotes the use of intergenerational programs to buttress youngsters' knowledge and appreciation of history and personal competence. He recommends a curriculum across the elementary and secondary schools to promote contact and exchange between the generations. Moody, in ***Abundance of Life: Human Development Policies for an Aging Society*** (1988a) recommends the focus on self-help for older adults. He eloquently reminds us of the power of education for the autonomy of older cohorts:

> The self-help ethos includes a strong distrust of experts, skepticism about professionals, and rejection of control by outsiders. Whether in citizen activism or self-care for one's own body, self-help groups represent a demand for empowerment: for control over what is closest and most vital. (p. 171)

He further stresses the need for education for the "information economy": "The pivotal role of the production and distribution of knowledge constitutes the economic basis for postindustrial growth" (p. 191).

With growing numbers of older persons comes a cultural mandate for knowledge, advocacy, policy, and status. In the

postindustrial economy it behooves older learners to educate themselves in areas of leadership. To live life with dignity and independence, older adults require skills and technological expertise, up-to-the-minute information, and the means to influence the national policies regarding housing, health care, environment, intergenerationalism, and other issues affecting the quality of life (Wolf 1992a). For example, The College for Seniors of the University of North Carolina, Asheville, connected to the North Carolina Center for Creative Retirement (1994), offers programs in "leadership, wellness, research, peer learning, intergenerational collaboration and retirement planning." Manheimer says of the intergenerational work of seniors, "I think there is an increased number of retirees for whom doing something with another age group is normal. They want to give something back" (Volz 1993).

Health care alone demands a wide array of initiatives (Frank-Stromberg 1991; Friedman 1991; Lindbloom 1993). A further mandate for adult educators comes from the arena of medical education. Compliance in taking medications, good relationships with the medical community, successful caregiving roles, and effective self-care demand interactive education based on adult development models (Goodwin-Johansson 1988; Hasselkus 1983; Lowy and O'Connor 1986; Rowe and Kahn 1987; Solomon, Salend, Rahman, Liston, and Reuben 1992).

A basic resource on the potential of aging and learning is Sherron and Lumsden's (1990) ***Introduction to Educational Gerontology, 3rd ed.*** The text has something for everybody interested in educational gerontology; it presents a good overview of age and shifting need. The journals ***Educational Gerontology***, ***Perspectives on Aging***, ***Generations***, ***Research in Aging***, and ***Gerontology & Geriatrics Education*** review theory, research, and applied gerontology for educators.

Discussion

"Time strips our illusions," wrote the poet Byron. As elders grow and change, so must the body of research that defines their needs and concerns. If it was ever thought that one body of data could answer all questions about the needs of older

learners, the error has now been recognized. The literature on sociological factors and learning in the Third Age represents a wide range of diversity and concerns. And it is as pragmatic as it is eclectic. There is, however, some consistency: As more Americans enter the Third Age, a mood of consumerism will prevail. Even now, people say their parents are not asking enough questions of physicians, are not questioning medication, and are not demanding services such as home care. These people might be Third Agers themselves, organizing their learning tasks around their parents' aging demands and focusing on systems change to prepare for their own future. By implication, there appears to be a revolution in aggressive relations with service providers. Adults expect to be informed and to make decisions where once they assumed more passive roles. The most significant direction in the literature in the past few years has been in the area of locus of control and self-determination. The confirmation in early research by Rodin and Langer (1977) that the more control people have over their lives, the better they do has caused a major stir.

The future will bring a need, too, for a wide range of information about lifestyle choices, workplace training, literacy, health, and family relationships. There is a need for data on populations whose lives follow diverse patterns and who may not be included in the mainstream literature of aging. The never-married, the clergy, gay and lesbian elders are only a few examples of populations understudied. If it is accepted that individuals construct their own worlds, their stories need to be heard. Multiple perspectives demand to be explored by gerontologists and, as Holzberg (1982) suggests, the discipline of anthropology has much to offer the field of aging. Researchers cannot overlook the differences in the social experience of millions of Third Agers. For example, the nature of retirement—its meaning and context—may be socially determined. Gibson (1994) writes of African Americans, "The disabled worker role may have greater social, psychological, and economic benefits than defining oneself as retired" (p. 121).

There is growing awareness that families differ from the stereotype of mom, pop, two children, and six grandchildren. Stoller and Gibson (1994) ask, "How do interlocking hierarchies based on gender, race, and class structure the family experiences of

today's older Americans?" and "How do definitions of family based on the experiences of the dominant groups in society bias research on other families?" (p. 159). These are only two of the questions that cry out for further attention and research for, as Torres-Gil (1990) notes, a combination of factors related to growing cohort differences and pluralism will be seen in the next generations of elders. There is no such thing as the uniform Third Ager.

The challenge for educators will be to create opportunities for a wide variety of older learners to contribute actively to society. The challenge for research is to track these experiences with actual populations of older adults playing active roles. To contribute and be connected to future generations, Third Agers must initiate and control their own learning.

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Summary

Bridging the literature and databases on aging and learning is a challenge. There is no clear framework for emerging bodies of theory, research, and practice applications. The scholar connects and builds constructs to describe what motivates Third Agers to pursue learning experiences. This review was developed around four constructs that allowed for a connection of emerging research, theory, and applications. The challenge of interdisciplinary focus is to embrace an ever-widening assortment of conceptual and data-based literature.

Research Directions and Needs: A Discussion

An important aspect of the work of educational gerontologists will be their ability to connect with Third Agers. Obviously, any response to changing demographics would be in error without an effort to explore their *individual* realities. What resources tap into the world of older adults themselves? The use of narrative testimony regarding learning, ethnographic materials, and phenomenological underpinnings is a methodological strategy for exploring the older learner's experience.

Constructive developmentalism holds that each person articulates the journey through life by responding suitably to cognitive, physical, and environmental shifts. People transform, make objects, adapt. To understand this phenomenon, researchers must collect data that reflect how lives are lived. "The course of human life," wrote Buhler (1968),

> can be viewed as a whole composed of a multitude of events and processes which an individual experiences between his birth and his death. . . . To understand the manifestations and data of a person's life it is necessary to know the interrelatedness of events. This interrelatedness of events is the result of their structural properties and of the motives and purposes that affect the continuity of individual development. By development we mean a succession of events that occurs

> in a recognizable order or pattern and conveys a certain direction and unity. And it is this process of development that we are looking for when we study a person's history. (p. 1)

Clearly, an understanding of the experience of learning, aging, making meaning, creating and relating to objects, and meeting social and private needs through educational activity must include subjective data of the learners themselves.

Gerontologists have joined the ranks of anthropologists to plumb the rich personal and interpersonal meanings of transitions, learning, growth, and aging (Hermans 1992; Keith 1982; Myerhoff 1992; Souvaine, Lahey, and Kegan 1990). The following questions are often asked: By what images does this older person live (Cole, Van Tassel, and Kastenbaum 1992; Wolf 1985)? What narrative methods best "capture" Third Agers' passions, interests, and needs (Berman 1993)? What historical features of their lives block or support development (Gubrium 1975; Hateley 1982)? Noteworthy examples of the methodological spectrum include the work of Cohler (1982); Coles and Coles (1990); Elder (1991); Erikson, Erikson, and Kivnick (1986); Fisher (1993); Frenkel-Brunswik (1968); Gubrium (1975); Horner (1968); Karp (1988); Kastenbaum (1984); Kaufman (1986); Keith (1990); Polkinghorne (1989); Ryff (1984, 1985) Thomas (1989); Vaillant (1993); and Viney (1992).

This body of literature includes the work of Coles and Coles (1990); they explore the lives of women who, in personal testimony, discuss how they make sense of daily life, how they meet their inner and outer needs. The methodological stance is of particular interest to adult educators and researchers in human development/aging. Like their previous works, the authors use interviews, observations, and story-telling to provide the context for the study of love, work, and lives. They model the art of listening, which is essential in understanding motivation for growth and development. *The Old Ones of New Mexico* (Coles 1989) is an example of ethnographic narrative that opens up the rich world of elders whose lives abound with personal meaning and legacy.

Kaufman's (1986) research on the individual's continuity of self is of key interest to educational gerontologists. It is a fascinating counterpoint to current theory and research in development of older persons. Kaufman proposes that individual elders are the best source for data-gathering. She interviews a selection of older people and "hears" how they define themselves. Her work is especially useful to adult educators exploring programmatic responses to older adults personal self-images and sources of meaning. Another delightful exploration of older adults can be found in Kidder's ***Old Friends*** (1993) which captures how older persons in a long-term-care setting make friends and support each other's dignity.

Perhaps the most significant contribution that any bibliographic excursion can make is to ask how educators will develop systems to understand how individuals are seeking and continue to seek meaning.

In a comprehensive discussion of the philosophical underpinnings of phenomenological research, Polkinghorne (1989) gives specific guidance for the researcher gathering data on learning and development, aging and motivation. Every older learner is different, and educators can not lump individuals together solely because of age. To appreciate fully the needs of older persons in learning situations, educators must ask *them* what they want, what works for *them*, and then they must listen.

The world of the older learner is a wide and expanding one. Never before have so many adults sought learning into late life (U.S. Senate Special Committee on Aging 1991). The process by which the theory of research and literature of learning in the Third Age is developed of prime importance. Perhaps the most significant contribution that any bibliographic excursion can make is to ask how educators will develop systems to understand how individuals are seeking and continue to seek meaning

Conclusions

The field of learning in the Third Age is burgeoning. Efforts to pull together threads and speculate on where it is going are, at best, tentative. After reviewing research, theory, and reports of practice from over 400 sources, one is increasingly reminded of the wily magic skein of wool: all different, yet all, somehow, of one piece. Nonetheless, this section attempts to make some basic assumptions of the commonalities and conflicts in the literature in this review:

- The research, theory, and practice applications of learning in the Third Age area are multifaceted; there is no *one* conceptual framework.

- Research into the personal meaning-making of Third Age learners is needed, particularly in the social construction of individual learners. Assumptions based on chronological age alone will be inadequate to describe the learning, motivation, and experience of older adults.

- A rich body of work has been amassed in the last 20 years on the use of reminiscence. The field will continue to explore and operationalize this practice area.

- Research in cognition and aging indicates that older persons have adequate capacity for participation in education. There continue to be stereotypes to the contrary, however.

- Inquiry into self-management (Baltes 1993) and the evolution of selves will continue to emerge; further examination into the area of cognitive adaptation (Labouvie-Vief 1980, 1990b) will enhance understanding of motivational characteristics of Third Age learners.

- New understandings of meaning-making are appropriate, including "wisdom" and spiritual development.

- Explanations of gender roles, gender shift across the lifespan, and inquiry into culturally diverse gender expectations are unfolding. These will provide added understanding of identity throughout the lifespan.

- The role of locus of control will continue to emerge in educational research.

- The variable of cohort affects policy and research in learning.

- There is a continued imperative to meet "the challenge of pluralism" (Torres-Gil 1990) in research and practice.

- There is a need for compendia of successful practices in aging education (i.e., Fischer, Blazey, and Lipman 1992; Hiemstra 1994).

- Research in the following areas would amplify the knowledge base: the nature of work and Third Agers, comparisons of cross-generational and unigenerational classrooms, and individual perspectives of learning and meaning.

- There is ongoing need for empirical and qualitative research in how older people live; narrative and life story methods will enhance knowledge of the Third Ager's idiosyncratic nature.

This discussion began with Jean Piaget, the great developmentalist, who conceptualized the underlying connections between the factors that explain "the intellectual and cognitive evolution . . . the development of affectivity and motivation" (Piaget and Inhelder 1969, p. 157). These constructs, it seems, are relevant to learning at all ages and they are key to understanding the processes of older adults whose intellectual development culminates in wisdom (Dittmann-Kohli and Baltes 1990; Labouvie-Vief 1990c). Piaget observed:

> It may even seem that affective, dynamic factors provide the key to all mental development and that in the last analysis it is the need to grow, to assert oneself, to love, and to be admired that constitutes the motive force of intelligence, as well as of behavior in its totality and in its increasing complexity. (Piaget and Inhelder 1969, pp. 157-158)

The focus has been to connect the inner world—the cognitive, emotional, and developmental aspects—with the outer world—the task-oriented, economic, and health needs—of Third Agers. To do this, current theory and research were examined and an exploration was made of how best to study the diverse population of older learners who will challenge educators in the coming years.

A central question for adult educators is: Who are the learners and how can we support them? The answer is that older persons are a diverse group of individuals whose strong voices must be heard. Remember, the more you unravel a magic skein of wool, the more the wool changes. Older adults want to stay in their homes as long as possible, living independent and social existences that provide opportunities for growth. All too often, educators assume that older persons are *in need of* services and

"educational outreach." Friedan (1993b), in ***The Fountain of Age***, commented on "the recent proliferation of programs that provide compassionate services and patronizing diversions for older people" (p. 58). Among questionable activities are some recreational opportunities that have been created in senior centers and other continuing care institutions. Often, according to Friedan, they segregate older persons and deliver watered-down "theme" courses on topics believed to be "good for them," rather than developed *with* and *around* the expressed needs of the learners themselves.

Perhaps educators can prepare themselves to provide formal support for Third Agers to make sense of their own gifts and developmental dimensions. They can create climates where learning throughout the lifespan is integrated through informal connections and acknowledgement of evolutionary development.

Perhaps educators can prepare themselves to provide formal support for Third Agers to make sense of their own gifts and developmental dimensions. They can create climates where learning throughout the lifespan is integrated through informal connections and acknowledgement of evolutionary development. As people age, th ' also continue to explore. The story of Jacob the Baker, a village sage, reminds us that there are many dimensions to the magic of learning and aging and that we still have much to learn. Jacob says,

> "Imagine a boy, sitting on a hill, looking out through his innocence on the beauty of the world.
>
> "Slowly, the child begins to learn. He does this by collecting small stones of knowledge, placing one on top of the other.
>
> "Over time, his learning becomes a wall, a wall he has built in front of himself.
>
> "Now, when he looks out, he can see his learning, but he has lost his view.
>
> "This makes the man, who was one the boy, both proud and sad.
>
> "The man, looking at his predicament, decides to take down the wall. But, to take down a wall also takes time, and when he accomplishes this task, he has become an old man. . . .
>
> "Are you afraid of growing old, Jacob?" asked a child, giggling while she spoke.
>
> "What grows never grows old," said Jacob. (BenShea 1989, pp. 76-77)

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Appendix

Programmatic Resources

Several resources are available to help the beginning educational gerontologist explore programmatic responses to older adult learners. (See Table 1 for the relationship between suggested resources and constructs presented here.) Of particular interest is ***Community College Programs for Older Adults: A Resource Directory of Guidelines, Comprehensive Program Models, and Selected Programs*** (Beckman and Ventura-Merkel 1992). This resource lists and describes selected programs designed to bring the academically inexperienced older person into the community college setting and to develop confidence and networking among older learners themselves.

A Planning Guide to Organizing Educational Programs for Older Adults (Moskow-McKenzie and Manheimer 1993) is a comprehensive study of educational programs developed for older adults since 1974. This guide tracks 15 stages in the development and implementation of successful programs. Based on Peterson's (1983) taxonomy of "steps normally undertaken" in designing and implementing programs, the planning guide examines how programs actually developed. These steps may provide guidance for fledgling educational programs or a basic check-and-balance system for ongoing programs: rationale, inception, assessment, planning, organizational positioning, funding and resources, participants, governance, program content and pedagogy, strategy, scale, delivery, evaluation, continuity and growth, and byproducts such as publications, exhibits, spinoffs.

Directory of Learning Opportunities for Older Persons (American Association of Retired Persons 1994) is a state-by-state listing of programs in the United States. The resource book also contains suggestions for self-study such as telecourses, library usage, and discussion groups.

TABLE 1
RESOURCES FOR LEARNING IN THE THIRD AGE

CONSTRUCT	RESOURCE
THE INNER LIFE	*Community College Programs for Older Adults: A Resource Directory of Guidelines, Comprehensive Program Models, and Selected Programs* *Directory of Learning Opportunities for Older Persons* ELDERHOSTEL Gerontological Societ. of America (GSA) American Society on Aging (ASA)
COGNITION AND AGING	American Society on Aging (ASA) Gerontological Society of America (GSA) American Association for Adult and Continuing Education (AAACE) *A Planning Guide to Organizing Educational Programs for Older Adults*
PSYCHOSOCIAL DEVELOPMENT	*A Planning Guide to Organizing Educational Programs for Older Adults* ELDERHOSTEL North Carolina Center for Creative Retirement *Lifelong Learning for an Aging Society*
SOCIOECONOMIC FACTORS	*Community College Programs for Older Adults: A Resource Directory of Guidelines, Comprehensive Program Models, and Selected Programs* *A Planning Guide to Organizing Educational Programs for Older Adults* *Resource Directory for Older People*

Resource Directory for Older People (National Institute on Aging 1989) is a national guide to services and organizations for older adults. It provides information on an array of advocacy and educational programs.

Organizational Resources

Several organizations provide bibliographies and expertise in programmatic responses for older adult education. One is the **American Society on Aging** (833 Market Street, Suite 512, San Francisco, CA 94103, 415/974-0300). ASA supports the Older Adult Education Network, which "works to meet the needs of professionals who administer educational programs for older adults, who serve as instructors or who plan activities with education components" (1994, p. 1).

The American Association for Adult and Continuing Education (1200 19th Street, NW, Suite 300, Washington, DC 20036, 202/429-5131) is a practitioner-centered society for the development of education in adulthood. The Unit on Aging, a lively and supportive group of adult educators, selects presentations for the annual conferences based on trends in theory, research, and applied gerontology.

The Association for Gerontology in Higher Education (1001 Connecticut Avenue, NW, Suite 410, Washington, DC 20036-5504, 202/429-9277) is a group of gerontologists who concern themselves with learning about aging in higher education. They also provide leadership in areas of learning and aging and publish a bibliography, *Education and the Older Adult*.

The Gerontological Society of America (1275 K Street, NW, Suite 350, Washington, DC 20005-4006, 202/842-1275) is a professional organization of gerontologists. The group meets annually and concerns itself with original research in the areas of biological sciences, clinical medicine, behavioral and social sciences, and social research, policy, and practice.

ELDERHOSTEL (75 Federal Street, Boston, MA 02110, 617/426-8056) is a nonprofit organization that develops and organizes domestic and international educational experiences.

North Carolina Center for Creative Retirement (University of North Carolina, Asheville, NC 28804-3299, 704/251-6140) is a model for course-taking and organizing. The center has compiled a bibliography of materials related to the development and support of programs for older learners: Moskow-McKenzie and Manheimer (1993). ***Organizing Educational Programs for Older Adults.***

The United States Senate Special Committee on Aging (1991) has prepared an annotated resource guide on the topic of aging, policy, and learning (***Lifelong Learning for an Aging Society***). It includes a wide assortment of information on the topic.

IN 358 $7.00

Older Adults: Learning in the Third Age, by Mary Alice Wolf

Explores the literature on learning among adults over 60 through four constructs: the inner life, cognitive changes of aging, psychosocial development, and socioeconomic factors. Suggests research needs and resources for program planning for education in the Third Age.

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