To the Graduate Council:

I am submitting herewith a dissertation written by Susan Church entitled "The Life World of Centenarians." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment for the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Howard Pollio, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor and
Dean of The Graduate School

THE LIFE WORLD OF CENTENARIANS

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Susan Church
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DEDICATION

To Alison and Leslie

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I am grateful to the many family members, friends, colleagues and patients who have guided me throughout my work in graduate school. The centenarians who participated in this project have given richly of their time. Committee members Leonard Handler, Lance Laurence and Sandra Thomas are skilled and compassionate clinicians from whom I have been privileged to learn. I owe a special debt to Howard Pollio whose wit and wisdom sustained me and whose Wednesday evening Phenomenology Research Group provided an intellectual home. My thanks also to Wade Saye and Bob Alexander, my editors at the Knoxville News-Sentinel, who supplied a steady stream of writing assignments that kept my family afloat for five years. Finally and most deeply, I thank my parents who supported me, and my daughters, Alison and Leslie, whose love makes a long life worth living.

ABSTRACT

The meaning of having lived a century was explored from a phenomenological perspective. Rorschachs and in-depth interviews were gathered from 11 centenarians who were asked to reflect on some times when it occurred to them that they had lived a very long time, and to describe those experiences in as much detail as possible. A thematic analysis of the transcribed interviews produced four interrelated themes: Being Special; Being Active, Doing and Working; Accepting Things and Being Satisfied; and Caring and Being Cared for. These themes were related to recurring Rorschach imagery of death and transformation. The study underscores the importance centenarians place on active engagement with the world, caring for other people, and accepting what life offers. Centenarians' ability to do these things throughout their lives makes them extraordinary.

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CHAPTER I

REVIEW OF THE LITERATURE

"There is nothing I like better, Cephalus, than conversing with aged men; for I regard them as travelers who have gone a journey which I too may have to go, and of whom I ought to inquire whether the way is smooth and easy, or rugged and difficult."

Plato, The Republic

Winfred Sharp celebrated his birthday Nov. 16 at the senior center, a block from the tiny one-bedroom apartment he calls home.

He lives alone, almost within shouting distance of his niece and her husband, who own a car dealership in Rutledge, Tenn. Louvenia and Uriel see Winfred every day, bringing him his evening meal or taking him for a drive to town for supper. Everybody in Rutledge knows Uncle Winfred.

Rutledge is home to 1,105 people and the county seat, populated by tomato and tobacco farmers and a few people who work in a nearby knitting mill. There are no malls, no shopping centers, no movie theaters. High school football is king, but on a Sunday afternoon with school out, more than 200 people have come to the senior center to celebrate Winfred Sharp's 100th birthday.

Lovenia and Uriel have decorated the center in red-white-and-blue, and set up three long folding tables stuffed with breads and cakes and chips and dips. Up front is another table, strewn with awards and medals Winfred won at the Tennessee Senior Games. Winfred is the oldest athlete in the annual event. He's so

old, sports organizers had to create a category just for his age group -- 95 and up. His events are javelin, discus and softball throw. When summer rolls around and the weather warms, Winfred sometimes practices for the games near the Chevrolet dealership Uriel owns. But not often.

"I find I can do about as well when I practice as when I don't," he admits. Winfred has a box overflowing with over 35 medals he's won since he started competing in 1990 at age 93.

Sharp says he doesn't feel his age, and surrounded by friends and family as he is today, he doesn't look it. Though he stoops slightly and walks with a cane, his hair is salt-and-pepper and his laugh is hearty. At the party, he sits in an easy chair up front, his arms around his great-great nieces, greeting a long line of well-wishers like royalty receiving supplicants.

"Remember me, Mr. Sharp? Remember me?," people ask, fearing he won't.

But he does.

"Well sure!," Winfred shoots back. "'We just talked last week! You drove all the way from Arkansas? Well bless you."

Winfred's sister, Cleo, stands beside him, joking with the crowd.

"I've been telling him for a long time now that you're never too old to learn," Cleo insists. "But he never listens."

His family has compiled a book of photos of Winfred's life. One page is a picture of Winfred's father, a stonemason and farmer, who lived to 96. On another is a picture of Winfred as a jaunty young rake, taken about the time he taught in one-room schoolhouses in rural Tennessee. Back then, Winfred would teach all day, then walk the three miles over the mountain to return to his parents' house, studying at night to stay ahead of his class. Occasionally, he even served as principal.

"I was probably 17 or 18 at the time," Winfred said. "You were supposed to be older, but I fudged a bit."

Besides teaching, Winfred spent much of his career as a bookkeeper and accountant at a Knoxville bakery. He retired at 65, but wasn't happy sitting home. He went to work as a tax preparer in Knoxville for 18 years, stopping at 83 to care for his wife, who had Parkinson's disease.

Winfred remembers being quite athletic as a young man, organizing baseball teams and even briefly riding the rails as a hobo. Now he keeps in shape by doing 100 deep knee bends after rising at 7 a.m. every day. He goes to the senior center for his midday meal, and likes an occasional bourbon and ginger ale in the evening.

"An ounce and a half. It helps limber the legs up," Winfred said.

A few days before the birthday celebration, Winfred sat in his apartment and rehearsed with a visitor the speech he'd give at the party. He figured he'd play his harmonica (being careful to remove his upper dentures first, "or else I might blow them out," he explained.) And he'd tell a few tales about his life, like the time a couple years ago when a new gal caught his eye at the senior center.

"I looked at the front door and I seen her coming in," Winfred said. "And she was a good-looking woman, I mean! So I said, 'Lord, let that woman come by me close so I can take a good look at her.'

"And the Lord answered my prayer. She came right by me. I looked right up at her and I said, 'Hello.' And she said, 'Hello.'

"'You're a good-looking woman,' I said. 'I haven't seen you around here much. You married?'

"She said, 'Yes I am.'

"And I said, 'Well, how's your husband's health?'

"'Right now, it's all right,' she said. 'But if there's any change in it, I'll let you know.'"

Winfred laughed and picked up his harmonica.

"Right now I'd like to do a song for you," he says, still in his rehearsing mode. And he starts singing:

"In the Land of the Sky
Where we never shall die
In the land where we never grow old
In the Land of the Sky
Where we never shall die
In the land where we'll never grow old
Never grow old, no we'll never grow old
In the land where we'll never grow old
In the Land of the Sky
Where we never shall die
In the land where we'll never grow old."

Winfred Sharp isn't the only centenarian in Rutledge. Three miles away, Bill Jarnagin, founder of one of the oldest Ford dealerships in the Southeast, watches over his fleet of cars and trucks at Jarnagin Motor Co. While he leaves the day-to-day business affairs to his grandson, Jarnagin still beats the sales staff in to work most mornings and is the first to fire up the coffee pot. He is 103.

The Biomedicalization of Aging

There are 37,000 centenarians in the United States today, according to the 1990 Census, double the number ten years prior (Smith, 1997). Their ranks could grow ten times over by 2080, according to some estimates (Vaupel and Gowan, 1986) prompting the need for increased recognition of the needs of this population and raising the sights of many who hope to live long and productive lives.

Centenarians like Jarnagin and Sharp and others who enjoy good health, sound minds and enduring relationships embody a fundamental philosophical shift in our understanding of what it means to grow old. The well-entrenched notion that aging naturally entails physical and mental decay is gradually being replaced today by efforts to understand how people can maintain and enhance their bodies and their lives across the lifespan.

This view of "successful aging" as a time of triumph has only recently entered the popular press with publications of books like Rowe and Kahn's Successful Aging (1998) and New Choices Magazine, with its upbeat articles on retirement, late-life careers and love. While the idea of "successful aging" generally is applied to people younger than 85, those older -- particularly centenarians -- teach us what is possible at the present boundaries of life.

From research data that is beginning to emerge about these remarkably long-lived people, we are learning about their medical needs, their cognitive strengths, and the family support systems that sustain them. Each new bit of data reveals secrets of longevity. Sociologists have studied what centenarians eat, where they live, and how much money they make. From autopsy data, physicians have peered into the chambers of their hearts and the convolutions of their brains, and know how often they fall victim to cardiovascular disease and dementia. Psychologists have looked at the ebb and flow of their memories and their capacity to learn new things.

Yet little is known about what is arguably the most fascinating aspect of their world -- what it is like to live for a very long time. We have studied the exterior manifestations of aging, but have rarely asked centenarians themselves about the sources of meaning in their lives. We are like travelers from a distant land who, coming upon a village of thatched huts and glowing embers, write a

story theorizing about the village's inhabitants without ever stepping inside the dwellings and talking to the people who live there.

Much of what we have elected to study and learn about centenarians has been guided by a theoretical model known as "disengagement" proposed by Cumming and Henry in 1961. The model is simple; its implications profound. Briefly, the theory states that aging brings a gradual, growing desire to shed the roles, relationships and obligations borne in younger years in preparation for death. The change is longed for, inevitable and cross-cultural. People yearn to release old obligations they are physically incapable of sustaining. Society grants permission to relinquish these burdens because doing so allows younger people the chance to fill the social roles formerly held by their seniors. The image is one of elders passively fading into the background, content with growing restrictions brought about by declining health and the death of spouses, siblings and dear friends who have nourished them in the past. When their own death comes, they can only experience it as a blessing for themselves and for their communities.

This press for the elderly to fade off into the sunset is nothing new. Various cultures have promulgated similar disengagements for older members in a variety of guises as a way to displace them from significant roles. Cumming and Henry's work is only the 21st century equivalent of death on an ice floe. In Eskimo culture, the old and infirm were led onto the snow to wait for death, or they were left behind while younger members of the tribe searched for new hunting grounds and never returned (De Beauvoir, 1996). Some "disengaging" in primitive cultures was accompanied not by passivity, but by blood. The Ojibway Indians, for example, held great feasts, lulling their elders with smoking and dancing and passing of the peace pipe, after which the sons would split open their fathers' skulls with tomahawks (De Beauvoir, 1996).

The disengagement model was proposed at approximately the same time as the birth of contemporary gerontology, and with that primacy, set the tone and defined the appropriate field of inquiry for the 30 years that have followed. Scientific studies of aging have focused on physical and cognitive losses, looking for evidence of decline and/or "disengagement." This predilection places great importance on the power, speed and productivity of youth, making frequent comparisons to how poorly older subjects perform on psychological and physiological tests compared to younger cohorts.

The tendency to define age as synonymous with loss colors most research in the field, whether it is psychological, sociological or biological. It is not unusual to peruse studies across disciplines and find phrases describing aging as a "crisis in slow motion" (Weinberg, 1979) or as a process of "inevitable deterioration," (Poon, Martin, Clayton, Messner, Noble and Johnson, 1992) or as frank illness, as implied by the title of a series of autopsy reports in the Journal of the American Geriatrics Society, the "Pathology of Centenarians" (Ishii and Sternby, 1978). Rather than explore the meaning of old age, as defined by elders themselves, meaning is imposed by individuals whose own senescence is 20 or 30 years in the future. This strategy may be culture-wide and driven in part by financial motives. Theorists like Graebner (1980) propose that the medicalization of old age has justified the wholesale retirement of elders at 65 or younger. Stressing the physical changes of old age implies that old people aren't strong enough or smart enough to work and should make way for younger colleagues. The disengagement model implies that only people who are gainfully employed are engaged with the world, ignoring the many elders who contribute unpaid hours in caregiving for ailing relatives and friends and in community volunteer activities.

The medicalization of aging is seen most clearly in the biologically-based explorations of old age. Here we find a number of studies tracking rates of heart disease, dementia and sensory declines in people 85 years and older. The "Pathology of Centenarians" series referred to earlier, examined autopsy reports on 23 centenarians, and noted that kidney disease, osteoporosis and pulmonary disorders were common. Pulmonary disorders, particularly pneumonia, accounted for 15 deaths, followed by congestive heart failure in five other cases.

Interestingly, cancer was only a secondary cause of death, present in only a small number of cases detected upon autopsy (Ishnii and Sternby, 1978). When cancer kills, it generally is at a much younger age. In tracking census data and mortality rates, Smith (1997) pointed out that cancer accounts for 40 percent of deaths from age 50 to 69, but only 4 percent of deaths among centenarians. Mortality rates from cancer drop precipitously after age 90, with the exception of breast cancer. Whether or not an individual develops cancer depends on a complex interplay of factors and centenarians presumably are resistant to the genetic mutations that foreshadow the disease. Diet, exercise and smoking also weigh heavily into the equation and most centenarians report a life-long love of healthy habits. They exercise, eat regular meals and don't smoke (Beard, 1991). Because lung cancer takes 40 or 50 years to develop and smokers tend to pick up the habit in their youth, they die three decades before the century mark. The literature describes only a small number of very old smokers (Pessah-Rasmussen, Jerntorp, Stavenow, Elmstahl, Hansen, Sidegard, Galvad, Brattstrom and Hamfelt, 1990) and those presumably are genetically resistant to smoking-induced lung cancer. Such life-long habits of good health may account for lower hospitalization expenditures for centenarians. In calculating average costs per hospital discharge and per diagnosis for a group of elders age 60 and older, Perls and Wood (1996)

found that average cost per stay was lowest for centenarians. The average total cost per hospitalization declines from a peak of $16,886 for 60 to 69-year-olds, to $6,523 for centenarians -- presumably because resource-intensive diagnoses such as coronary care are rare among centenarians and because centenarians are not treated as aggressively as individuals in younger cohorts.

Recent efforts to uncover the "secret" to longevity have focused on genetic factors. In a study of Japanese centenarians, a particular mitochondria genotype (Mt5178A) was seen to confer increased resistance against adult-onset degenerative diseases. The researchers (Tanaka, Gong, Zhang, Yoneda and Yagi, 1998) found this genotype was carried by the majority of Japanese centenarians in their sample, but by less than half of the Japanese population they studied. They conclude it may be a factor in the centenarians' longevity. In a project underway at Harvard Medical School, researchers noted that longevity appears to run in families. Centenarians are four times more likely than individuals in the general population to have siblings who survive into their early nineties (Perls, Bubrick, Wager, Vijg and Kruglyak, 1998). Another Harvard Medical School project found that women who are able to bear children late in life -- in their 40s -- were four times more likely to live to 100 than those women whose childbearing years ended in their thirties (Perls, Alpert, and Fretts, 1997). Such findings suggest a strong genetic link to longevity. Centenarians -- nearly 90 percent of whom are women, may age more slowly than the general population and maintain their fertility longer. The Harvard study is part of an on-going investigation of 102 centenarians in eastern Massachusetts.

Diet also has been suggested as partially accounting for longevity. In a study comparing nutritional habits of centenarians and people in their 60s and 80s, centenarians were found to eat breakfast regularly and to have maintained a steady

weight for years, avoiding crash diets and wide weight fluctuations. None of the centenarians were vegetarians, although they did eat slightly more vegetables than their younger counterparts (Johnson, Brown, Poon, Martin and Clayton, 1992). More than half the centenarians in the Johnson study took vitamin supplements. Alcohol was used in moderation, with centenarians and octogenarians consuming only one alcoholic beverage a week. The authors note that such regular, moderate habits may be correlated with good health. For the elderly, being either too thin or too fat is associated with poor health and impaired ability to manage daily self-care activities. Several centenarians in the study spoke about not smoking and their fondness for fresh fruits and vegetables as reasons for their continued good health. Surprisingly, centenarians were more likely than 60 or 80-year-olds to eat high-fat diets. They also had a particular fondness for sweets and pastries. The authors speculate that fat may supply a valuable source of calories.

While cancer reports are rare, Alzheimer's disease is common among centenarians, as is a general degradation in brain wave activity. A favored evaluation tool, the Folstein Mini-Mental State Exam (MMSE), has been used by several researchers to gauge memory, concentration and attention among centenarians. The MMSE asks participants to remember words, follow simple three-stage instructions, copy simple shapes and count backwards by seven's.

In a study examining cohort effects, Nichols, Meador, Loring, Poon, Clayton and Martin (1994) compared centenarians to people in their 60s and 80s on the MMSE and found significant levels of neurological impairment. Increasing age brought marked declines in memory, language, attention and visuospatial skills, even among the healthy elderly. Using electroencephalographic methods, Hubbard, Sunde and Goldensohn (1976) described a general slowing of alpha waves in the brains of centenarians, signifying a loss of active wakefulness. Powell

(1994) listed a menu of brain-related disorders among a group of 40 centenarians he evaluated, including difficulty finding the "right words" in conversations, abnormal gait and moderately advanced dementia in more than half his sample. He noted centenarians frequently are incontinent of feces and urine and that they engage in endless repetition of certain themes and stories, the result, Powell suggests, of an "apparently constricted universe" (p. 108). Unfortunately, Powell does not tell us what stories seemed to capture the attention of these centenarians, depriving readers any insight into the life world of his participants. One of Powell's prior studies (1992) noted 75 percent of centenarians in his sample of 20 had poor vision. Half were hearing impaired. The portrait he paints is one of old people bereft of new ideas, incontinent of mind and body -- "sans teeth, sans eyes, sans taste, sans everything" (Shakespeare, 1965).

That is not how centenarians see their lives. In a study drawn from Social Security records, most centenarians rate their health as either excellent or very good (Segerberg,1982.) Despite seeming evidence to the contrary, centenarians consistently say they're in "relatively good shape" (Kropf and Pugh, 1995, p.125) although over half have difficulty tending to activities of daily living such as dressing, grooming, and toileting, in addition to significant vision and hearing losses.

How are we to reconcile the rather dismal medical data with the upbeat assessment centenarians make about their lives? Psychological and medical reports provide only scant hints, and most of them describe endemic brain injury and disease. The idea that this age is one of entrenched stagnation appears early in the scientific literature, and subsequent investigations appear driven by the belief that mid-life adulthood represents the end-stage of growth and development, and that little beyond death lies in wait for those 50 and older. This tone was set by Freud,

whose rather pessimistic assessment of old age noted the "inelasticity" of mental processes after 50 (Agronin, 1994). Stage theorists like Paul Costa argue that personality is "locked in" after 30, with little change possible after that (Costa, Metter, and McCrae, 1994).

Only recently have some clinicians decided to break from the bleak characterization of age as a monolith of decline and despair to see the tremendous variability. One report of 30 Kentucky centenarians, (Kinzel, Wekstein, and Kirkpatrick, 1986) highlighted the wide-ranging health status of individuals who live to extreme old age. While cognitive skills were significantly impaired in six people in the Kentucky sample, another eight individuals lived completely on their own, had active social lives, and routinely got out of the house every day for shopping or visits with friends. Even though heart disease was evident in much of the sample, the authors conclude it did not limit the centenarians' ability to function in their daily lives. These folks used few medications, mostly for heart disease and arthritis. The authors report that "there is a great variation in mental, clinical and functional status with some retaining excellent health in all respects," (p. 175). While health impairments are common, how the elders experience and manifest those difficulties vary greatly. Even those whose autopsy data indicates pronounced evidence of Alzheimer's disease don't necessarily act demented. One intriguing investigation, dubbed the "Nun Study," is tracking cognitive skills among a group of 678 School Sisters of Notre Dame across the United States (Snowdon, 1997). Participants agree to yearly assessments of cognitive and physical function and to donate their brains for autopsy upon death.

Snowdon and his crew were particularly taken with Sister Mary, a diminutive, four-and-a- half foot tall nun who weighed 85 pounds and dressed in the traditional long black and white habit. Sister Mary entered the convent at age

14. At 19 she began her teaching career, working with seventh and eighth grade students, while earning her high school diploma at night. She taught full-time until she was 77, then taught math and worked as a teacher's aide part-time until she was 84. In retirement, Sister Mary continued to read newspapers and books long into her 80s and 90s, and in her prayer life she traveled the globe, dividing the world into its seven continents and devoting a day in prayer to each one. With her active prayer life and participation in religious community, Sister Mary didn't consider herself retired. "I only retire at night," she once quipped to Snowdon's staff, (p. 150). Her yearly cognitive assessment showed MMSE scores well within normal. Her medical history included numerous chronic diseases, cancer and weight loss near the end of her life, yet her short-term memory and grasp of the world's events remained strong.

What was not normal was her brain. The autopsy at her death revealed the neurofibrillary tangles and senile plaques that are the telltale signs of Alzheimer's. Snowdon notes that the location of the lesions -- few were found in the neocortex, the region of the brain that controls executive functions -- may have prevented overt behavioral symptoms of the disease. But he concludes his report by noting how little we understand about the role of lifestyle in Alzheimer's. Perhaps Sister Mary's dogged determination to remain active and useful protected her from the more ravaging impact of the disease. Some centenarians may even be predisposed to milder forms of Alzheimer's than their younger counterparts. Brun (1992) goes as far as to call centenarians "an elite (group) with less genetic predispositions for dementing and other disorders," (p 129). Brun concluded cognitive hardiness, not impairment, characterized centenarians.

The birth of interest in "successful aging" and the acceptance of social constructionist paradigms (Ryff, 1986) have highlighted the importance of context

in research. In these models for new research, which consider how well participants do in the context of their everyday lives, elders and cententarians have fared better and in some cases shown themselves superior to younger cohorts, particularly when the research question is important for elders. Several recent studies have viewed the cognitive declines of centenarians and those 60 and older in the context of their lives, rather than in isolated comparisons to younger cohorts. In practical problem-solving tasks -- what to do if the electricity fails, or how to handle prank telephone calls, for example -- centenarians perform as well as people in their 60s and 80s, (Poon et al, 1992). Poon's study is part of the Georgia Centenarian Project, which seeks to understand the health habits and cognitive functioning of a group of Georgia centenarians.

In this particular study, participants were administered four subtests of the Wechsler Adult Intelligence Test (WAIS-R), and a memory test in which they were asked to remember the names and faces of six immediate past presidents of the United States. Participants also were asked questions related to solving problems most people encounter at home. As expected, assessed intelligence scores declined with age, even for those categories of intelligence previous studies had sometimes deemed impervious to aging, such as performance on vocabulary and arithmetic subtests. But what particularly intrigued Poon and his colleagues were the centenarians' response to the practical problem-solving questions. Here, centenarians held their own against people in their 60s and 80s. Centenarians with higher fluid intelligence -- the ability to understand and apply new, not previously learned information -- did particularly well here. Poon postulates that these real-life survival skills are just as important as isolated intelligence tests and memory questions. He suggests that centenarians' poor ability to recall presidential names may be due to a lack of interest in current political affairs. In

Poon's search for the secret of their longevity, he calls centenarians a "resourceful group" (p. 36) whose ability to manage day-to-day life may be key to their endurance.

While studies on the cognitive strengths of centenarians are rare, there have been a number of researchers who have taken up the question of learning and memory in elders from 60 to 90 years. They argue that illiteracy, visual defects and poor learning strategies, rather than declines in attention, learning and memory account for some of the difference in test performance between elders and young adults. While not specifically studying centenarians, several studies note a weakening of cognitive skills with age and attribute poor problem-solving skills to less frequent use of classification schemes (Denney and Denney, 1973; Denney and Lennon, 1972). Memory deficits are heightened when participants are required to switch attention, engage in free recall or in fast-paced learning situations (Schaie and Gribbin, 1975). When taught mnemonic strategies and given adequate time to perform the research tasks, the performance gap between elders and younger participants closes.

Other investigators question whether a cultural bias in favor of Piagetian models of rational thinking has blinded researchers to the strengths of elders' more complicated thought processes. Labouvie-Vief and Schell (1982), for example, suggest that the deck is stacked against elders because most tests ask them to solve problems that are irrelevant to their lives. Labouvie-Vief criticizes studies that do not take into account elders' greater use of intuition, interpretation and emotions in problem solving, which may explain their seeming inability to attain the stage of formal operations so highly valued in research tasks (Labouvie-Vief, 1985)

Labouvie-Vief attributes this devaluation of elders' thinking styles to the primacy of Piagetian (Cartesian) models of reasoning that value abstract thinking

as the paragon of mature thought. Elders do poorly on standardized test of formal reasoning because they tend to personalize the task, taking into account the affective implications of the issue under consideration. Labouvie-Vief and theoreticians like Commons and his colleagues (Commons, Sinnotl, Richards and Armon, 1986) note that older people weigh interpersonal relationships and contradictory information to arrive at conclusions. This ability to gauge social context, not raw rationality, is the mark of mature reasoning, Commons et al argue.

Rowe and Kahn take up this theme in their book, Successful Aging, and argue that intelligence is the ability to exercise good judgment, often in the face of conflicting information. They note one research project in which participants were asked to discuss what they would do when confronted with difficult moral questions or how they would advise others to proceed in complicated situations. Some of the examples included what a 14-year-old girl should do if she became pregnant, or how a 60-year-old widow should plan for her future as she contemplates opening her own small business and the possibility of having to care for her two small grandchildren. Participants were rated on whether they gave credence to the long-term consequences of decisions, the importance of religious and cultural issues, and whether or not they recognized that every decision has its pitfalls and blessings. Under these criteria, elders were among the top "performers." Rowe and Kahn write:

"Unlike the case with short-term memory, for example, age-related cognitive deficits are not apparent in dealing with these lifelike problems...for certain problems involving choices in later life, all of the top-rated responses came from older people," (p. 142).

The wisdom of age, not processing speed, is what is valued under these paradigms that consider the importance of context in individual lives.

Personality Studies

Belle Boone Beard spent 40 years collecting names, questionnaires, and "recipes for a long life" from centenarians throughout the United States (Beard, 1991), hoping to write a book that would explore the unique qualities of the age. Between 1940 and 1979, she asked hundreds of centenarians about their health habits, their diets, and the role of work and religion in their lives. Beard compiled her observations in a manuscript over 1,000 pages long, rich in personal anecdotes and remarkable stories of survival and strength. A sociologist and college professor who had longed to be a writer in her youth, Beard had an ear for a good story, and captured them when they came her way. One of her favorites came from Eddie "Holy Cow" Van Duyne (1844-1954), who joined a fraternal organization called the Improved Order of Red Men at age 107. He was the oldest active fraternity brother in the world. Beard writes:

> A year later he celebrated his 108th birthday by giving a party at the Tuscororo Red Men's Club for his many friends. He telephoned the invitations, saying, 'Come on out, Laddie, there'll be plenty of eatin', drinkin', and girls. Holy Cow, I love the ladies.' When accolades were exhausted, they sang to him as the 'jolliest good fellow who ever lived.' Afterwards, the Boy Scouts made him an honorary member; at this time, an eight-year-old boy was inducted. When the boy congratulated him, Eddie said, 'I'd sure have joined at your age, but I was a little too old when the Boy Scouts were organized--about 66 to be exact (p. 167).

Belle Boone Beard died in 1984 at age 86, leaving it to her colleagues at Lynchburg College and the University of Georgia to parse her manuscript down to a manageable 283 pages for publication. While she didn't hit the century mark

herself, she understood deeply what makes centenarians like "Holy Cow" Van Duyne special. She credits their optimism, their independence, their embrace of physical and mental labors, and their passion for others as keys to their longevity. As Beard explained in her posthumous book, Centenarians: The New Generation,

> To a centenarian, living is an integration of positive attitudes and habits, of hard work to be useful, of pride in self and family achievements, of loving and being loved, of friends working together, of shared successes, and of recognition for contributions to others (p. 247).

Beard's book, while short on statistical analysis, was long on inspiration, suggesting several avenues of research that may help explain the coping mechanisms these elders use to survive a century of hardship -- pandemic flu epidemics, the Great Depression, two world wars and the transition from the dawn of industrialization to the birth of high technology. What personality characteristics unite centenarians? From what beliefs do they draw strength? How do they find meaning in their lives? How do they continue engaging the world? Unfortunately, few researchers have explored the paths Beard's work suggests. There is a dearth of studies on personal characteristics of centenarians, and few, if any, published reports utilizing projective personality test data for this population. What studies there are have focused on death and on searching for evidence of disengagement among this age group, ignoring the ways centenarians are sustained in life and in turn sustain other people around them. Most studies of personality and aging target "younger" elders, exploring personality characteristics and coping techniques of those under 85. With a few recent exceptions, personality studies of the "oldest-old" do not exist.

Part of the oversight is due to developmental psychologists' love affair with youth. Judith Stevens-Long (1990) grumbles about the dearth of data on the emotional needs of mature adults and the lack of developmental theories beyond middle age. The founding fathers of developmental theory -- Freud, Piaget and Erikson -- peg childhood and adolescence as the richest time of growth, and subsequent theorists like Costa et al (1994) see little, if any, personality development in old age. There is a decided predilection in favor of youth among all life stage theorists. Piaget's theory of cognitive development culminates with the formal operational stage attained at age 12 or so. Erikson's model of psychosocial development has six maturational milestones occurring before age 30 and only two -- generativity vs. self-absorption and integrity vs. despair -- for the latter years. According to these models, the middle-aged and elder years are a period of planning for future generations and a preparation for their death. Such models leave little room to explore what, if any, emotional and cognitive developmental changes occur after age 70, let alone in the second century of life. These models assume the aged years are marked by despair and a longing for either youth or death. But can we not also assume that the elder years continue to be a time of growth and change, as earlier patterns from childhood and young adulthood would suggest? The subtle bias against research exploring the elder years is evident in psychology. Until recently, Division 20 of the American Psychological Association was called the "Division on Maturity and Old Age," with its shadowed implication of stagnation and death. Only in 1995 was it renamed the "Division of Adult Development and Aging," which more accurately connotes ongoing change and development in the middle-age years and beyond.

Several researchers have commented on the bias embedded against elders in Piaget's model of cognitive development and suggest a new emphasis be placed on

adult development and reasoning abilities in the extremes of age. Stevens-Long (1990) notes that cognitive development in late life is characterized by an appreciation for universal and affective components in decision-making. Labouvie-Vief and Schell (1982) describe elders' ability to appreciate the contextuality of "truth" and to understand the tension that exists between their own beliefs and those of others.

Perhaps the notion that the aged years are marked by a stagnation in personal development is inspired by research studies noting the general subsiding of personality disorders with age. Several authors have suggested that the behavioral manifestations of borderline and antisocial personality disorders diminish over time (Agronin, 1994). In his review of the topic, Agronin notes decreased aggression and impulsivity among anti-social types and a decline in self-mutilation and acting-out behaviors in aging borderlines. The author suggests that some characteristics of personality disorders may be particularly adaptive in old age. The decreased opportunity for social interaction brought on by physical limitations may be welcomed by schizoid types who tend to avoid relationships and welcome an opportunity to be free of such obligations. An increasing reliance on social services for medical care and help with daily living via Meals on Wheels, home health care, nursing home care, etc. may be greeted by hysteric types as confirmation of their long-cherished belief in their naiveté, helplessness and inability to navigate the world.

A study giving credence to the notion of psychological stability in the aged was undertaken by Swenson (1985). In reviewing MMPI data from thousands of individuals between the ages of 20 and 80, Swenson noted a softening of the more pathological scales of Paranoia, Psychoaesthenia and Schizophrenia with age as well as a decrease on the Hypomania scale. Swenson attributes declining

hypomania scores to participants' withdrawal from activities that interested them in their younger years. With the exception of depression, Swenson notes that individuals become more psychologically stable with advancing years and there is no evidence for increasing psychopathology with age. He did find a slight trend toward traditionally masculine interests for both men and women on the Masculinity-Femininity scale, with women becoming less traditionally "feminine" with advancing age. Swenson's study is limited since his report did not include participants over age 80. Studies of the oldest-old have concluded that this age group suffers fewer depressive episodes than younger cohorts, when gender, income, disability and cognitive impairment are taken into account (Kropf and Pugh, 1995).

The intriguing question of whether certain "personality types" are better adapted to the rigors of age has been examined by a limited number of researchers. Swenson's study suggest that "survival of the fittest" requires a softening of the extremes of personality and an interest in assertiveness and domination. An on-going study from the University of Georgia of Georgia centenarians (Adkins, Martin and Poon, 1996) found that extraversion is linked with high morale for centenarians. The University of Georgia researchers administered several personality measures to centenarians, octogenarians and sexagenarians, including the 16 PF, a commonly used factor-analytic questionnaire assessing temperament. Self-sufficiency strongly predicted high morale for participants in their 60s, whereas no single predictor was found for morale among octogenarians. For centenarians, however, high morale was predicted by high levels of extraversion, indicating that those centenarians who took opportunities to tell stories, socialize with others and engage in relationships were happiest. Once again, gender differences were not found among centenarians.

The demands of extreme old age -- the death of long-cherished friends and children, increasing frailty and the need to enlist support from family and strangers to provide care -- put a particular importance on finding ways to cope with change and loss. Centenarians place great value on the role of religion in providing comfort and sustenance in their lives. African American centenarians in particular attribute their longevity to the Almighty (Segerberg, 1982). A study reported by the University of Georgia Centenarian Project (Courtenay, Poon, Martin, Clayton and Johnson, 1992) found religious coping techniques were used most frequently by centenarians to come to terms with life's losses, although the authors note that the study may be clouded by geographic confounds, with all subjects drawn from the "Bible Belt" of the South.

The Georgia Centenarian Study has attempted to characterize personality characteristics of the oldest-old. In one of their cohort studies, volunteers in their sixties, eighties and 100s were administered the 16 PF. Centenarians scored significantly higher than the other two groups on dominance, suspiciousness and imagination and lower on intelligence, conformity and emotional stability, (Martin, Poon, Clayton, Lee, Fulks and Johnson, 1992). That finding was in contrast to one of the few earlier reports on personality in old age (Schaie and Parham, 1976) which characterized elders as more conforming and less suspicious. Schaie's oldest cohort was in their 70s at the time of testing -- thirty years younger than the oldest-old in the Georgia Centenarian Study.

The report produced by the Georgia project offers tantalizing hints about the nature of personality at the extremes of age. The authors suggest that those who live a very long time may become more assertive and forceful; the researchers fall short of suggesting that these characteristics are essential for longevity. They do note, however, that the centenarians' high scores on emotionality indicate

difficulty coping with the demands of every day life and suggest that they may not have access to supportive family or social systems to help with their needs.

Disengagement, Death and Transformation

> **I remember a woman who is almost totally blind. She's in a wheelchair, and lives with her daughter, who is probably in her 80s. By the time you are 100 your kids are pretty old. And that means you have a caretaker who is not strong enough to pick you up and help you out, for example. This woman has physical problems, has lost the ability to do a lot of things because she can't see. She can't read, she can't sew. Her network has closed, so she can only see people who come to see her because she can't get out. And yet, this is an individual who reports that this time in her life is just as good as other times. She says she has been luckier than most people. I think that when you live that long, you make peace with the whole situation at some point. It's just better to be optimistic. These people can either see things as half full or half empty, and they choose to see them as half full and not talk about a lot of negative things.**
>
> Gloria Clayton, researcher, The Georgia Centenarian Project

Economics isn't the only dismal science: Gerontology can also lay claim to a wasteland of despair. Disengagement theory has led researchers to focus on the physical and mental losses of age largely ignoring issues of personality development and elders' continuing efforts to find meaning in their world. Biomedically-oriented researchers have ignored elders who, like the woman that Gloria Clayton found so striking in the Georgia Centenarian Study, continue to

find pleasure and worth in their world, despite its restrictions. While elders may be talking optimism, researchers are writing pessimism.

In the past few years, new theoretical approaches have appeared that allow more of the participants' perspective to be heard. These new approaches emphasize not the uniformity of the aging process, but its variability. Feminist scholars like Betty Friedan in The Fountain of Age (1993) suggest that elders are not "moving away" from life, as implied by the disengagement paradigm, but "moving towards" a new definition of life. The elders described in these new models are saying less about disengaging and more about finding new ways to exercise their vitality despite the shortcomings of their age.

One of the strongest voices in this new understanding of age belongs to Belle Boone Beard, who noted the overwhelming optimism of centenarians and the continuing importance of work for them. Centenarians concentrate on positive aspects of their lives and are hard-pressed to dwell on their sorrows. They value activity, with many engaging in daily exercise routines and life-long habits of moderation. Several of her interviewees were employed at the century mark. One worked as an artist's model. Another continued to practice law in Texas, and another was a preacher in Tennessee. Some sold handicrafts, or picked up soda cans discarded along the road for pin money. One centenarian, confined to a nursing home, begged staff for activities to occupy her. As she put it, "I'd rather wear out than rust out" (Beard, 1991).

Other reformulations of disengagement theory note that the surrender of significant relationships is related to poor health and widowhood, not to age itself (Tallmer and Kutner, 1969). A study by Lieberman and Coplan (1970) using the Thematic Apperception Test and other measures found that people who were within two years of death were less affectively complex, less aggressive and more

dependent than those whose demise was farther in the future. In a review of the literature citing these and other refinements to disengagement theory, Hochschild (1975), reminds readers that disengagement is highly variable and dependent on cultural norms and on the lack of opportunities for significant roles in late life. What superficially may appear to be voluntary relinquishment may be a culturally-endorsed method to force an aging, although competent, person out of a much-cherished social role. In activities in which elders are culturally encouraged to participate, they continue to excel. In a study of 215 centenarians, for example, Beard noted that more than half voted in the last election. She saw "no indication of a desire to isolate one's self from the national scene," (Beard, 1967, p. 123.)

In more recent refinements of the theory, Johnson and Barer (1992) studied a group of people 85 years and older and found that those in good health with spouses and children living close by were more likely to report rewarding relationships and contact with family and friends. Those participants who were described as "disengaging" tended to pace their activities to cope with their diminished energies. As one centenarian told the research team, "I am like a prize fighter -- I step back to lessen the impact of the blows," (p. 359). The authors note that disengagement is neither inevitable nor universal. Half of their sample still had family and friends to whom they turned for emotional support. When disengagement comes at the extremes of life, it is characterized by increasing introspection and a shift in time orientation from thinking about the future to living in the immediate present -- as one participant put it, "I used to look back with regret and ahead with trepidation, but now I live day to day," (p. 369). Participants in the Johnson and Barer study also reported a growing awareness of the cyclical nature of life. "We come into the world. We develop, have an active period and then we decline. That's the way it is," (p. 361).

Few personality studies have been undertaken on those 85 and older, and almost none employ projective techniques. The Rorschach is only rarely used as a clinical tool in working with elders, due to the therapists' prejudice against this population, the elderly's resistance to therapy, and, as geriatrician Rosalie Kane suggests, (Mattlar, Knuts and Virtanen, 1985), to a lack of training among geropsychologists in projective tools. Rorschach himself was the first to comment on the usefulness of his test in exploring old age, suggesting such protocols would be characterized by diminished emotionality, perceptual inaccuracy and narrowed range of interests (Panek, Wagner and Kennedy-Zwergel, 1983).

In order to evaluate Rorschach's conjecture, a study by Ames and her colleagues (Ames, Metraux, Rodell and Walker, 1973/1995) used the inkblot test to distinguish among healthy, presenile and senile elders. They found that dementia was characterized by a reliance on form-dominated responses of poor quality, animal rather than human content, and few populars and whole responses at the expense of small detail. The authors, who had extensive experience working with children, concluded the Rorschachs of elders were similar to those of young children.

Few studies have used the Rorschach test to help illuminate the life world of the very old, or to draw insight into the developmental tasks challenging us at the extremes of life. One of the few to do so examined the Rorschachs of a small sample of people 85 and older, and found a striking awareness of the cyclical nature of life in participants' responses, as well as a great deal of anxiety about death (Church, Handler, and Benoit, 1997). References to death were frequently seen in percepts depicting vultures, black widow spiders, stingrays, broken bones, and dried-up puddles of water. Far from welcoming death, as disengagement theory would hypothesize, these elders metaphorically personify it as a violent

intruder seeking to snatch them from the world. And yet, just as surely as death is to be feared, there are hints in the protocols that the elders are searching for ways to overcome death and to triumph in this ultimate passage.

Again, they turn to nature to come to terms with uncertainty. The protocols showed a heightened awareness of life's transitions and symbolic references to endurance. While the world is depicted as a "horrible, black stingray," it is also portrayed as a "delicate flower" just starting to bloom. One participant, an 85-year-old widow, planted symbols of life throughout her protocol, with flowers sending up shoots. One 97-year-old man who lived alone, first talked about geese flying south in the winter on Card VII then saw another symbol of transition on Card VIII:

> I'm gonna call that a groundhog. He's poking his head up to see if somebody is gonna come around to see if they're gonna eat him. Them's some pictures...It looks like an old groundhog rarin' up.

The most striking response was given by a retired librarian on the day of her 104th birthday. Her protocol was rich in references to passages and change. Card I showed a door with a tiny peephole. On Card III were two people from primitive cultures baptizing their infants, with souls going up to heaven. On Card VII was another door, "the kind you can open from both sides." And then making a whole response to Card IX, she said:

> We're getting nature (moving into) creation here, because these animals are here. And nature's in trees, and that's coral, and here is blood. This is the most interesting one. I think of such funny

> things. It's about creation. The forming of creation.

Finally, on Card X, she saw animals rising from the ocean and climbing up on the sand. The last image was that of a lifeless husk of a shellfish, hung upside down. One life passes. Another emerges.

The woman who gave this protocol died less than three weeks later. The images she cast on her Rorschach showed an intimate awareness of transitions and a working through of death -- not a dispassionate disengagement but an attempt to transcend the boundaries of life and find meaning and a new birth at life's close.

It is this struggle for meaning that is missing from much prior research concerning the oldest-old. In concentrating on loss and death, the biomedical model of aging ignores the ways elders continue to live. A different approach is needed to study the life world of the oldest-old -- not to supplant the biological models that seek to understand the cognitive and physical changes of age but one that puts life changes in the context of the lived world of its inhabitants. Such an approach should yield a richer appreciation for developmental changes possible after midlife and provide hints about attitudes and coping techniques that may be just as important as diet and genetics to living a long time. With a few notable exceptions, centenarians themselves have not been allowed to describe their world and the meaning of having lived in it for a hundred years. People like Winfred Sharp, the harmonica-toting centenarian with an eye for the ladies, may have a lot to teach us. Maybe it is time we listened.

CHAPTER II

METHOD

Introduction

There seem to be clear inconsistencies between centenarians' perceptions of their lives and the depictions of their lives in scientific literature. What this discrepancy underscores are certain possible weaknesses in the model of inquiry typically used to study this population. Rather than examine a research question from a naturalistic perspective -- within the context of the phenomena in which it is embedded -- the tendency in quantitative biomedical studies is to isolate and describe factors that are observable and measurable (Valle, King and Halling, 1989). This approach maximizes the ability to predict and control aspects of the phenomenon in an effort to understand it. The drawback to this approach, however, is that it ignores the meaning of the phenomenon to those who experience it. Quantitative models assume that phenomenon must be reduced to mathematical terms to be understood. The result is a clear gulf between an individual's attempts to understand his or her world as it is lived (from the inside, so to speak), and the world as it is observed and measured by the researcher (from the outside) (Pollio, Henley and Thompson, 1997). Such an approach to aging presupposes that the researcher, rather than the participant, is the "expert" in the phenomenon under investigation. Research questions must by necessity be defined to maximize statistical evaluations. Unfortunately what is often overlooked is a rich description of the phenomena.

This gap between the lived-world of the aged person and the description of it as distilled through analytic study has been criticized by sociologically-minded

gerontologists as misleading. Kastenbaum refers to numerically-driven studies as "phantom cohorts" that "construct people who never were and never could be," (Datan, Rodeheaver and Hughes, 1987). A few developmental psychologists have become dissatisfied with traditional methods of inquiry and have turned to narrative techniques in an attempt to provide a different understanding of the lives of the aged. Neugarten argues in favor of studying the life-stories of elders, "not to discover universals, not to make predictions that will hold good over time, and certainly not to control; but, instead, to explicate contexts and thereby to achieve new insights and new understandings" (Datan et al, p. 163). Certainly there is strong evidence for elders' own predilection to convey the meaning of their lives in stories. Since Butler (1963) first suggested the benefits of reminiscence, or life review, in coming to terms with one's mortality, numerous studies have looked at elders' use of this technique to examine sources of continuity and change in their world (Romaniuk and Romaniuk, 1981; Haight, 1988; Hyland and Ackerman, 1988).

Phenomenological methods of inquiry also may be used to provide a potential alternative to standardized, quantitative methods in gerontology. Ryff (1986), in arguing in favor of phenomenological approaches in psychology, notes that phenomenology's emphasis on deriving meaning from participants provides a richer picture of the life world of the aged than is available in statistically-driven models. Ryff argues that phenomenological methods have a role in gerontological research, not as a replacement for quantitative methods, but as another tool at the investigator's disposal. "Such a position," she writes, "is not hedging; rather, it is an acknowledgment that the strengths and weaknesses of more qualitative methods complement those of the more quantitative variety" (p. 50). Phenomenology, which values context and meaning, is a descriptive technique that is both

inclusionary and integrative. Its aim is to provide a holistic understanding of phenomena as lived by the person or persons in question.

Phenomenological philosophy, from which many qualitative studies derive, is rooted in the existentialism of Soren Kierkegaard and was heavily influenced by German philosophers Edmund Husserl and Martin Heidegger, who proposed phenomenology as an unbiased method to study "things as they are so one might come to an essential understanding of human consciousness and experience" (Valle et al, 1989, p. 6 .) Unlike traditional more quantitative approaches that examine narrowly-defined variables for the purpose of prediction and control, phenomenology aims at a descriptive understanding of the phenomena. Hypothesis testing is not employed, and the search for meaning, as it is described by those experiencing the phenomena, replaces prediction (Romanyshyn and Whalen, 1989). Phenomenology relies on the "figure/ground" metaphor of Gestalt psychology to explain human perception: patterns emerge and are given meaning by the observer when some events are perceived as figural and others recede into the background (Thompson, Locander and Pollio, 1989). Under the aegis of a figure/ground approach to experience, the participant observer -- the person experiencing the event in question -- is considered the "expert" in the phenomena under investigation. Moreover, the context -- or grounds, to use Gestalt language -- provides the background from which phenomena emerge. In phenomenological discourse, four major existential realms have been described from which phenomena become figural -- the body, time, the world and other people (Pollio et al, 1997). Experience is grounded by these four existential realms. No person is free from this context -- a notion often expressed as "being-in-the world" (Thompson et al; Pollio, Henley and Thompson, 1997).

Phenomenology and similar qualitative methods have a relatively long history in clinical psychology (van den Berg, 1961; Rogers, 1951; May and Yalom, 1984; Thompson et al, 1989; Moss, 1989; May, 1990.) Part of the attraction for clinical psychologists lies in phenomenology's insistence that clients can only be understood as they live within the context of their life-world; that is, in their relationships, communities, history, etc. It is a particularly useful approach for explicating the experience of an individual as shaped by the context of family, social system and personal perception of his or her place in that dynamic structure. Such an approach would seem to be invaluable in studying the aged because it does not require the possibility of misleading or inappropriate comparisons of elders to younger cohorts, but capitalizes on a narrative process that elders themselves practice, i.e., the life review. It is less threatening than traditional research tasks, such as cognitive evaluations, because it asks elders to do something in which they are already well versed (i.e., talking about their lives) and does not require them to undertake a process of learning new information or of performing tasks with which they are unfamiliar.

Purpose of the Present Study

The purpose of the present study, therefore, is to describe the experience of having lived a very long time. The study has two parts -- a phenomenological interview, described below and administration of the Rorschach Inkblot Test. The growing population of aged individuals necessitates a strong understanding of the developmental milestones that continue to occur in middle age and beyond. At present, few studies have been undertaken on those 85 and older, and projective data on this population is extremely rare (Mattlar et al,1985). It is hoped that data obtained in one method will inform findings in the other.

Participants

Eleven centenarians (six men and five women), were recruited for this study on the basis of personal contact with administrators in nursing homes and assisted living centers, and from newspaper articles appearing in the general media about centenarians. Most participants are residents of Tennessee, although several live in Missouri and North Carolina. In instances where a caregiver was deeply involved with the participant, that caregiver was initially contacted by the researcher to inform him or her about the nature of the project and to obtain assent prior to contacting the prospective participant directly. Several early prospects were eliminated prior to interviewing stage due to obvious impairment which limited their ability to engage in coherent conversation with the investigator. While all the centenarians in this project evidenced various degrees of physical impairment (two were bedridden and confined to nursing homes; two lived in assisted living centers; the rest had impaired vision and hearing and required daily support for meal preparation or household maintenance,) all were deemed by relatives or medically-trained long-term care administrators to be mentally acute, conversant and able to enjoy a conversation about their lives. No formal cognitive assessment tests were used to include or exclude participants and no formal assessment of health status was undertaken. At the time of the interviews, two of the eleven participants continued to work in paid employment well beyond their 100th year. Two other individuals were involved in extensive volunteer and philanthropic activities -- one is a minister who serves on several community boards and had just published his autobiography; another is a community activist involved in historical preservation projects.

In accordance with the Human Subjects Review Committee at the University of Tennessee, all participants were offered complete anonymity in the phenomenological interview and in their Rorschach responses. The principal investigator was impressed by the stories the participants told about the course of their lives, however, and following the interview and administration of the Rorschach, asked if she might use their narratives and protocol data not only in the present study but as part of a newspaper series she authors on longevity. Nine of the 11 participants agreed to allow the material to be disseminated to the general public and to use their real names for this present study. Rorschach responses, however, are not identified by name.

Procedure

No researcher is free from the constraints of his or her own perceptions. Quantitative methods try to overcome the bias of the researcher by employing objective methods of statistical analysis that force the burden of significance beyond the probability of chance occurrence. In qualitative methods, there also is an attempt to recognize the bias of the researcher in a process known as "bracketing" (Polkinghorne, 1989). In this procedure, outlined by Polkinghorne and by Thompson et al (1989) the researcher's bias is illuminated so that it may be placed under continuing surveillance, allowing the experience of the study's participants to emerge with as little direction as possible by the researcher's own preconceived notions concerning the phenomena of interest.

In the case of this study, the principal investigator was interviewed by a member of the University of Tennessee Phenomenology Research Group to reflect on some times she had spent with very old people and to describe those times in as much detail as possible. The question generated several instances where the

researcher had significant interactions with elders, and the meaning of those interactions for her. Her reflections and conversation with the person conducting the interview were audio recorded, transcribed, and interpreted by the Phenomenology Group to ascertain the meanings of her experiences with elders. From that process, the researcher was made aware of her tendency to simultaneously stand in awe of individuals who live a very long time, and to be shocked at the physical decline they undergo. The researcher expected older adults to convey the meaning of their lives in terms of struggle and difficulty and to comment on the grand historial events they have witnessed. Aware of her own biases, she was better able to more openly and sensitively approach and interview participants in the present research project.

Consent for the project was obtained by the Human Subjects Review Committee at the University of Tennessee. Participants were recruited and their informed consent obtained according to the method described in the previous section. The research question they were asked was generated in conjunction with the Phenomenology Group, after careful consideration of how to avoid negative stereotypes toward aging. After considerable debate, the research group and primary investigator settled on the following question, to be asked of all participants: "Can you think of some times when you were aware of having lived a very long time, and describe those instances in as much detail as possible."

The exact wording of the question varied somewhat from participant to participant, to maintain a collegial exchange. Several participants sought clarification of the question. On these occasions, the researcher repeated the question and asked the participant to respond in the manner they best could. In response to the question, six of the participants told their life histories in roughly chronological order, similar to the manner described by Butler (1963) as "life

review." The issues and instances mentioned by participants were explored in depth by the interviewer, who asked additional questions only to clarify statements by participants.

All interviews lasted less than an hour, and were audio-taped and transcribed by the principal investigator. The interviews were typically shorter than most phenomenological interviews, due to the age of participants, who were more easily fatigued than younger cohorts.

The Rorschach was administered following the phenomenological interview, using the method cited by Exner (1993). Two participants declined to do the Rorschach due to visual impairments. In a third case, because of time constraints, the Rorschach was administered prior to the phenomenological interview. The participant died three weeks after this initial meeting with the primary investigator, before the phenomenological interview could be scheduled. To summarize, nine Rorschachs and 10 audio-taped interviews were obtained from the pool of 11 participants.

Audio tapes were transcribed by the interviewer, and transcripts sent to participants and their primary caregivers, when appropriate, for corrections. The corrected transcripts were read several times by the interviewer, and four of them were presented to and interpreted in the Phenomenology Research Group to extract significant themes, using the method outlined by Polkinghorne (1989). This process, called "thematization," attempts to identify elements of meaning and to illuminate a structure of shared meanings in all protocols. These themes are understood by qualitative researchers to capture the meaning of the experience under investigation -- namely, the experience of having lived a very long time. To be considered valid and applicable to others who have undergone similar experiences, these themes must be present in all protocols. The process of

analyzing protocols in a group setting provides an opportunity for independent auditors to ascertain the "goodness of fit" between the principal investigator's interpretation of the data and the participants' experiences. The process is similar to the "external audit" advocated by naturalistic observers, (Belk and Wallendorf, 1989). After obtaining themes for each protocol, a thematic structure of the experience of having lived a very long time was developed in terms of similar themes shared across protocols.

Because only a very small sample of Rorschachs was obtained for this study, the protocols were not subject to statistical analysis but were examined in terms of looking for images or categories of images similar across protocols. A prior idiographic study (Church et al, 1997), found an abundance of imagery related to death and transitions in the protocols of elders 85 and older, and it was assumed that similar imagery would be found in the present sample of protocols generated by centenarians.

Reliability and Validity

Qualitative methods have been criticized for the possibility that the researchers' own subjective bias may influence or contaminate the research findings (McCrae and Costa, 1984). Advocates of traditional empirical methods argue that statistical approaches help control for such bias. Phenomenological research methods include several safeguards, and humanistic psychologists have argued that qualitative approaches offer a more complete understanding of phenomena than is available in other methods. As Giorgi (1989) writes, descriptive psychology "is not a matter of measurement," but a search for "logical coherence" that transcends statistics. Reliability and validity are addressed in several ways in phenomenological research in this study:

--Close adherence to the text. Statements about themes must be substantiated with support from the text, and arguments about themes must make sense to other researchers (Thompson et al, 1989).

--Use of bracketing interview. Bracketing helps the researcher illuminate and set aside individual notions about the phenomena in order to ascertain a universal thematic structure.

--Cross-subjects reliability. The thematic structure is derived from a repetition of themes across multiple protocols, providing a unifying thread that is the essence of the experience.

--Deepening of knowledge. Validity is achieved when the resulting themes are found to be related to prior research findings; when they convey a deeper appreciation of the experience under investigation, and when they illuminate further avenues for research (Polkinghorne, 1989). Themes are meaningful when they convey a portrait of an experience that resonates with the experimenter, the participants, and with other independent observers from the community (in this case, members of the Phenomenology Research Group). Because a thematic structure is echoed by multiple texts, it presumably also would be found in a wide-ranging sample, if a much larger study were to be undertaken. The focus, however, is not on generalizability; rather, it is concerned with an in-depth description of a significant aspect of human existence -- in this case, having lived one hundred years.

CHAPTER III

RESULTS

So live, that when the summons comes to join
The innumerable caravan that moves
To that mysterious realm, where each shall take
His chamber in the silent halls of death,
Thou go not, like the quarry-slave at night
Scourged to his dungeon, but sustained and soothed
By an unfaltering trust, approach thy grave
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams.

"Thanatopsis," William Cullen Bryant

This chapter has four major sections. At its center is a discussion of the thematic meaning of old age, derived from interviews with ten centenarians who were asked to consider instances when it occurred to them that they have lived a very long time, and to describe those instances in as much detail as possible. When interpreted across interviews, their responses yielded a thematic description of the meaning of extraordinary longevity. Four major themes emerged from the interviews: Being Special; Active/Doing and Working; Accepting Things and Being Satisfied, and Caring and Being Cared For. Each of these themes will be described in depth later in this chapter.

Before proceeding to thematic description, however, it is necessary to provide some demographic information on participants. While similar in many respects to centenarians in other research projects, participants here were far better educated, enjoyed a higher degree of independence and pursued professional careers more often than centenarians in prior projects. Following a discussion of

demographics, the chapter will examine the kinds of situations centenarians talked about when asked to reflect on their long lives. These situations clustered into four general groupings, and contain examples cited again and again by participants. Centenarians told stories about their accomplishments; they reflected on their health and the close calls they've had; they talked about their connection with other people, and they noted the differences in childrearing techniques from their youth and those of today's parents. The chapter concludes with an examination of Rorschach imagery generated by participants, with particular attention to symbols related to death and transformation.

Demographics

Eleven centenarians, six men and five women, participated in the project, with ages ranging from 100 to 104, with an average age of 101. Table 1 was prepared to relate pertinent demographic information. Ten participants were white, one was African-American. Three participants had never married, and two had divorced and remarried. Those who had wed were now widows and widowers.

The housing status and education level of participants were heterogeneous. The sample drew elders from all levels along the continuum of care -- from employed centenarians living alone in their own homes with only occasional help from relatives, to centenarians residing in nursing homes, nearly bedridden and requiring extensive assistance with mobility and eating. Educational experience was varied, ranging from fourth grade through the doctoral level. As a whole, these centenarians were extraordinarily well-schooled, especially considering they came of age before mandatory education laws. All but two participants were high school graduates, and five had attended college or had postgraduate degrees.

Table 1. Demographic Characteristics of Study Participants

Mean Age	**Sex**		**Race**	
101.1 years	Male: 6	Female: 5	White: 10	Black: 1

Marital Status		**Living Situation**	
Currently married:	0	Retirement Center:	1
Never married:	3	Own home, minor assistance:	6
Divorced and remarried:	2	Lives with relatives, needs major assist:	1
Widowed:	8	Assisted living center:	1
		Nursing home:	2

Employment

Working:	2
Semi-retired but with extensive volunteer activities:	2
Retired:	7

Primary Career

Entrepreneur:	2
Teacher/Librarian:	4
Writer/Editor:	1
Accounting:	1
Administration:	1
Skilled trades:	1
Housewife:	1

Education Level
(Highest level attained)

8th grade or less:	1
Some high school:	1
High school graduate:	1
Some college:	3
College graduate:	1
Masters degree:	3
Doctorate:	1

The unusually high education level of participants was reflected in the large number of skilled and professional careers pursued by these centenarians. Only one participant had not sought paid employment, but had spent her younger adult years as a wife, mother and grandmother. Two men had started their own companies -- one became a car dealer and another owned an electrical contracting firm. Four worked as teachers or librarians, one worked as an editor. Among those who were teachers is an African-American man who earned a masters degree from the University of Minnesota, became a junior high school principal, and served on the board of directors of several civic and cultural organizations in an era when few blacks graduated high school. None of the participants was an unskilled laborer, and only one -- a pipefitter -- could be ranked among the skilled trades. Most of the participants worked well into their 70s and were loathe to retire even then. Two of them -- the car dealer and the copyeditor -- were still on the job, although they downplayed their roles at work. The car dealer had passed the business to his grandson, but still came in every day. The newswoman, who has spent more than 30 years on the job, edited obituaries and city news, but described her job as "just clean(ing) up the waste basket." Two other gentlemen were active volunteers. One of them, an ordained minister, still performed a weekly church service and was a leader at the non-profit North Carolina retirement center which he helped launch and where he now lives. The other is developing community resources honoring the legacy of his distant relative, Andrew Johnson, president from 1865-1869.

An elder's ability to live in the community is often taken as a benchmark of independence. Under that criteria, centenarians in this study are a hardy lot. Seven of 11 participants in the present study live in their own homes with only occasional help from family and friends. While none of the centenarians in this

project lives completely on his or her own, there is great variability in the level of support needed to meet daily needs. Four participants required major assistance to accomplish activities of daily life such as bathing, cooking and financial management. Others lived in their own homes and took care of many of their own chores, including yard work and home maintenance, with daily visits from relatives primarily for companionship. One gentleman offered to cook me breakfast before our interview began, and talked about how much he enjoys making his own pot roasts and pork chops. Another centenarian mentioned how she and her adult daughter, with whom she lives, hit the malls every week to "power walk." A third, who at 102 felt like the years had caught up with her, mentioned how sad she was when her doctor forbid her to hoe weeds in the garden anymore.

Situations: Accomplishments, Health and Close Calls, Connection with Other People and Differences Between Past and Present

The centenarians offered dozens of examples when asked to reflect on their experience of longevity. Those examples were grouped into the four major situations -- their accomplishments at work and in their families, their health and the close calls they have had, their connection with other people and the differences they notice between the world of their youth and that of today. The first situation, accomplishments, includes the ways centenarians have helped shaped their families and their communities. Centenarians spoke about rearing children, building businesses, and leaving behind a record of important deeds. Ralph, who was an engineer and entrepreneur, spoke about how the local paper piled accolades on him for his efforts to bring electricity to its rural community in the 1930s, dubbing him "The Man Who Lit Up Greene County." Bill, a centenarian who

opened a Ford dealership, proudly pointed to his business card and commendation from Ford Motor Company that proclaimed him the oldest Ford dealer in the nation. Paul, a college professor, ordained minister, YMCA administrator and founder of the retirement center where he lives, had a long list of accomplishments which he detailed in his autobiography. Monroe, a black educator whose intellectual curiosity led him to studies at several major Northeastern universities, noted that the white students in class often borrowed his notes because they thought highly of his scholarship. "I never failed any subject," he said. "And I studied in many fields."

In addition to their accomplishments, all of the centenarians in the study related information about their health, and several men spoke of times they have cheated death. Centenarians noted the ways that their bodies are slowing with age and how their activities have been restricted. One woman is reminded of her limitations when she asks her daughter for help reaching items on the top shelf of a closet, and when the names of well-known acquaintances slip her mind. Another begged off doing the Rorschach test, saying her eyes have worn out and that she didn't see well anymore. Confined to a nursing home bed, another woman said she must be transported by ambulance to her doctor's appointments and that she doesn't go out anymore. The car dealer spoke of his body running out of "horsepower," leading to occasional blackouts:

> One mornin', 'bout daylight, I gettin' the Sunday paper. I got a stone walk out there, these flat rocks 'bout an inch thick. Got a nice walkway made there. And that blacktop, I walkin' on that blacktop. Must've turned my head. That throwed me. And I fell. I had to roll over. I had my raincoat on in the rain. Got on all fours. Took all the power I had to get up. Well, when I git up, I stood awhile. And I certain I wasn't gonna turn my head. And when I started to step to see if I was

> goin' again, then I couldn't git up. I didn't have enough horsepower in me.

Despite these infirmities, four of the six male participants in this study cited instances where they feel they've cheated death. Typically, these stories are spoken with pride, reflecting the centenarians' ability to endure and even embrace encounters that would harm "lesser" men. Often they come out the better for it. One fellow swore that a fall "cured" him of prostate cancer. Another claims a bad accident got rid of his arthritis. While listeners may catch a whiff of tale tales in the telling, these stories mark centenarians as survivors. These men have been run over by cars, had gunpowder blow up in their faces, fallen out of trees and come through World War I without a scratch. The black centenarian mentioned several close calls -- an encounter with an angry white mob, facing a pack of wild animals, a near drowning, and the most recently -- a car that struck him while he was walking near his apartment last year:

> Well, since I was hit and knocked more than 10 feet down Magnolia Avenue at the corner of Chestnut and Magnolia, and I heard people say, "After that, he has to be dead," I wondered. I wonder why I am not dead because to have been hit by a car and knocked more than 10 feet down that street, a person should have been injured. And that's why I have this cane. I had not been injured. Yet I should have been injured. I don't know why I am talking to you today, or to anybody, as far as talking is concerned. I don't have any business being alive today. And I know it. I should have been destroyed by animals or I should have been eaten by animals, but I'm not. And I'm thankful.

The third kind of situation mentioned by participants focused on the importance of connection to other people. These instances included comments made about attentive family members and the loneliness felt by some when their contemporaries have died or they feel alone. Seven participants gave examples that convey their connections to other people. Participants spoke of beloved husbands, children and parents and offered examples of familial bonds from years ago, and from the present. Several mentioned going on shopping trips or dances with family members. Two of the women mentioned changing jobs to move closer to their mothers. Another spoke of how her adult daughter visits her in the nursing home, bringing her treats to entice a flagging appetite:

> And she brings me things, things I'll enjoy. I've sorta lost my appetite. She she'll ask me if there's anything that appeals to me. I told her, some of her homemade soup. So she brought me some of her homemade soup. And she brought me peaches and little things that she thinks I might enjoy.

The loss of beloved family and friends hurts centenarians deeply. One fellow who never married spoke about having outlived his friends by 30 or 40 years. He said he sometimes feels like time has forgotten him. While his hometown is still peopled with the names of families he's known for 70 years, they are the great-grandchildren of old friends and are strangers to him now.

> When I tell you I live in another world, I don't like it. I mean, I'd rather not have it that way. I wish I had more friends. I wish people would drop in, call me up and say, "Come over." There's nobody to do that. The people I once knew, their children, they don't care anything about me. Especially their grandchildren. The people I'd associated with socially a great deal, if I still

> have respect for the name it'd be great-grandchildren, not grandchildren.

The final kind of situation participants related concerns their perceptions of the differences between the past and the present. Here participants discussed instances where they felt today's world is a far different place then the one they experienced in their youth and young adulthood. Three centenarians offered examples in this category. The Ford dealer talked about how today's cars are better built than those he sold decades ago. Two other centenarians focused on the lack of respect children of today show towards their elders and on the differences in child-rearing techniques in contrast to their own upbringing. One participant noted how her ideas of discipline differ from those of her daughter and granddaughter:

> But boy I used to spank 'em. But they don't do that now. Mothers don't. It's 'Honey, you mustn't do this. Honey, you mustn't do that.' I guess I didn't have time to talk to 'em. I'd just whop 'em and send 'em on the chair.

The Emergence of the Thematic Structure

These four situations -- accomplishments, health and close calls, the connection with other people and the differences centenarians notice between today and yesterday -- were generated from significant statements found in all protocols. They are the overt examples that participants chose to talk about when reflecting on their lives. It is important to note that the situations reflect an interest in what Thompson, Locander and Pollio (1989) and Pollio, Henley and Thompson (1997) call the existential grounds of human experience: the world (accomplishments); others (connection with people); the body (health and close calls) and time (differences between yesterday and today.) The situations were then

examined for themes that seemed to tie all the protocols together in a coherent gestalt. These themes were arrived at over the course of several months of discussions and examination of the protocols with colleagues in the Phenomenology Research Group. Four themes emerged as figural from this process. They are Being Special; Being Active, Doing and Working; Accepting Things and Being Satisfied; and Caring and Being Cared For.

Thematic Structure of the Experience of Being a Centenarian

Ralph Phinney has devoted the past 15 years of his life to restoring the legacy of his distant relative, Andrew Johnson, who was impeached by Congress during the Reconstruction era. Phinney oversees the Johnson estate in Greeneville, Tennessee, where Johnson was born. He has arranged for a larger-than-life sculpture of Johnson to be erected in downtown Greenville, and is spearheading a drive to create an Andrew Johnson Park nearby. Phinney is 102. He is single, and never married. He is consumed with the task of redeeming the good name of the Johnson family -- an assignment he likens to "somebody throwing a mantle over my shoulders saying, it's yours; do what you can with it."

"This is not Andrew Johnson country," he explains. "But we're making it Andrew Johnson country. We're going to make this Andrew Johnson Corner. Andrew Johnson Park. Andrew Johnson Square. We're gonna move Main Street down there."

Phinney has been a pioneer in this small community most of his life. He earned an engineering degree from Virginia Polytechnic Institute and served in the signal corps in World War I. Returning to Greeneville after the war, he opened a contracting firm that brought electricity to rural homes and wired the local movie

house for sound when the "talkies" came to town. He kept the business for over 60 years, finally retiring at age 86 to launch his career as a historical preservationist.

One of his few regrets is that he never married. Phinney has outlived not only his contemporaries, but their children and grandchildren. He misses his friends.

"I don't even have a man I can call and say, 'Come down here; I need you," Phinney said. "I do not enjoy what I could call a confidant."

While he wants to live to see the tasks he has undertaken for the Johnson family completed, he says he has no fear of death.

"When you think of it, we're just here for a short time," Phinney said. "How'd we happen to be here? Here today, gone tomorrow. That's a good motto."

Phinney is, in many ways, representative of the other nine centenarians interviewed for this study. He shares with them a sense of himself as special, of playing a unique role in his community. He works hard. He values relationships with the people who care for him now, and misses those who have sustained him in the past. And he faces the world with equanimity, never railing against his troubles.

These four characteristics -- special, active, caring and accepting, appeared again and again in the stories told by centenarians in this study. They are central to the centenarians' views of themselves and their lives, and form the thematic structure of their experience of living to an extremely old age. Each of these themes appeared in all 10 protocols. Seen as a gestalt, the four themes form a diamond shape (Figure 1). Viewed individually, each theme represents an aspect of the experience of extreme longevity. Any single theme by itself, however, is not a complete description of what it is like to live a very long time. Each theme is connected with every other theme and should be viewed in relation to the others. It

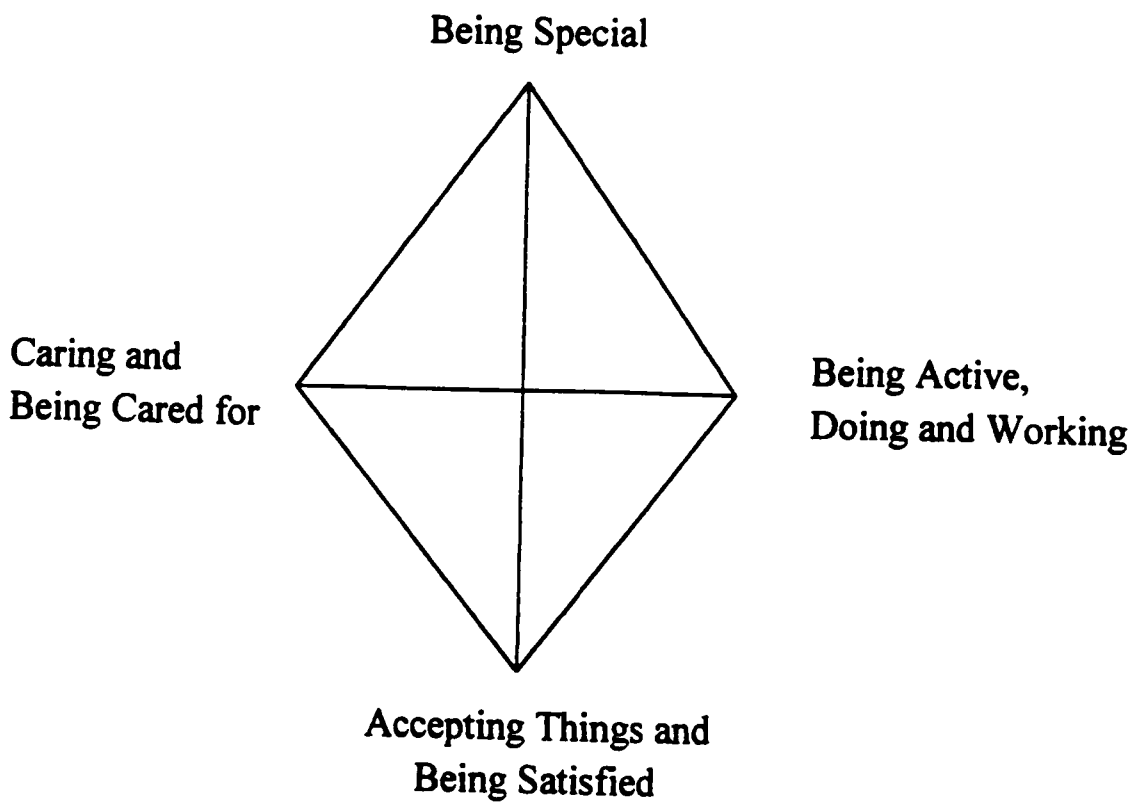


Figure 1: Thematic Structure of the Experience of Being a Centenarian

is best to think of these themes as landmarks in the longevity experience, each of which may be perceived separately but must be seen as a whole to be completely understood. A particular theme is said to emerge from the protocol and be figural at certain times, and to recede at others. Just as one can take note of the separate aspects of an outdoor environment, for example, by looking at a jagged mountain peak, or by hearing the crunch of snow underfoot, or by feeling the biting wind against one's cheek, one can become aware of certain themes emerging as figural from the protocols -- that centenarians see themselves as special; that they value activity and work; that they accept what life offers them, and that they care for other people and are cared for in return. But just as it is necessary to simultaneously take in the mountain peak, the sound of snow underfoot, and the cold against one's cheek to experience what it means to climb a mountain in winter, it is necessary to combine the themes into a gestalt for a fuller understanding of the experience of having lived a very long time.

Theme 1: Being Special

Standing out as someone "special," distinguished by age, accomplishment or good fortune, is a thread running through all of the protocols. Many times, that specialness is highlighted during a 100th birthday celebration, when family and friends gather to honor centenarians for their longevity. Or one's specialness is spoken of in chance meetings with people whose lives the centenarians influenced. Or it is underscored when centenarians consider the extraordinary historical characters they have met or the world-changing events in which they have played a part. The theme of Being Special is reflected in the accomplishments and close calls centenarians relate with obvious pride. That these people see their lives as noteworthy is seen in the stories they tell about themselves. Often there is almost a

"name-dropping" quality to some of these narratives, as when Paul mentions he met the Queen of England, or Nanine says she once taught a kindergarten class with the woman who wrote the most popular song in the English language, "Happy Birthday to You."

In addition to working or meeting extraordinary people, the centenarians are proud of their own accomplishments in the everyday world of work. Each could point to past achievements that filled him or her with pride. Julie, the stay-home mother, treasured the success of her children. Margery mentioned her master's degree. Paul, the YMCA administrator still active in volunteer work, said he had a hard time being humble when he considers the many opportunities for travel and recognition he's received. Monroe, the black educator whose curiosity led him to studies at several major Northeastern universities, was proud of his intellectual standing compared to the white students in his college classes. "I never failed any subject," he said. "And I studied in many fields." He was so smart, in fact, that other students turned to him for notes:

> I have been the only black person in the class at Michigan and at Minnesota. For some reason, for some reason I don't know why but people have borrowed my notebook before taking a final examination. And those people have been white people, which I didn't object to, as far as my notes were. And I never asked them to, because I took full notes in every class, in every class I have ever taken. Full notes.

Often times just the fact that they've lived and worked so long is striking to these participants. One of the most charming interviews took place with Bill, the Ford dealer. After shaking hands and introducing himself, he picked up several of his business cards and autographed the back of them, writing his birthday -- Dec.

8, 1894 -- underneath. While the name of his grandson, who officially owns the business also is printed on the card, Bill's name is still the most prominent. It's a detail he wants noticed. As he put it:

> See that there? I been in business 81 years. You didn't see that, did you? Sept. 16, 1916, is when I started. I signed up on this business...There's a letter right here see that there (pointing to a commendation from the Ford Motor Co. framed on his office wall.)

Another participant, Audrey, referred to her birth at the close of the 1800s, saying she hoped to live to the year 2,000 "so I could say, 'I've lived in three centuries."

Family celebrations are a quintessential time for noting centenarians' remarkable longevity:

"I'm celebrating my hundredth birthday," Julie exclaimed upon greeting her visitor shortly after the family gathering in honor of her birthday. "It was with a big party, and at mass...And my children were here. Grandchildren. It was quite celebrated. It was celebrated with style."

Paul spoke of the scrapbooks his grandchildren made for him on his 100th birthday, and showed off the hundreds of greetings he'd received from friends, family and colleagues at the celebration. He later spoke of his membership in what he called "one of the fastest growing age groups in the country:"

> And so there's a certain inner satisfaction about having achieved that, of course. And the getting the family together and having these receptions, naturally is very gratifying.

Family celebrations underscore the esteem these elders describe being endowed with by their families. Interestingly, these centenarians often say they've felt special their whole lives. Julie talked about how her life seemed like a wonderful book, with herself as the heroine. "I just feel like I've always, in some way, got special treatment," Julie said. She recalled several instances from childhood and beyond where she was showered with attention, and how a beloved aunt, much wealthier than her family, would give her gifts and take her to special places:

> And in a lot of ways, I feel now that she loved me, because she favored me with little gifts. And they were very wealthy people. They had a plantation. Then, they had parlors. And I wish I had some of that furniture that was in that parlor now! I'd get to go in there and sit down on those plushy little settees. It was beautiful. Beautiful. She had four boys and one girl. And her daughter was the oldest and married when I was little, far back as I can remember. I can't even remember when she got married. It was something to get to go to her home.

Julie went on to talk about her money-management skills, and how her first husband, a hard-working man, would simply bring his paycheck home and hand it over to her:

> ...and I'm not bragging. I'm a good manager. Now Paul would just bring the money in. "Here it is. Spread it out as far as you can." And that's what we did.

She and her husband raised seven children, sending most of them to universities and launching them in professional careers. Julie continued to earn kudos from her second husband, who she called Pappy. After their marriage, he gave her free rein to decorate his home as she saw fit:

> See, Pappy had a nice home. And it was all paid for. Furnished and everything. And I took this one bedroom and made us, I called it a den. We moved the television in there. And my things was better than his things. He had some chairs that were in need of repairing real bad. But anyhow, I made us a den. And I moved the nice things in there. And he had his desk in that den, and I had a telephone put in there. And he thought I was real smart, you know, to do all those things.

Many times, centenarians' awareness of their specialness is drawn from working despite their advanced age. Bill the car dealer noted his longevity on his business card by proclaiming his 81 years in business. Certainly Ralph Phinney, who referred to his labors on behalf of the Johnson family as a "mantle" placed on his shoulders, is fully aware of his special role in the community. His thoughts are echoed by Paul, who spent a long career as an administrator with the YMCA, in addition to work as a college teacher, minister and humanitarian. Paul mentioned the important people he'd met and his swift rise in the ranks of academia, including establishing a department of religion at a Pennsylvania college when he was 26 and his tenure with the faculty of Teacher's College at Columbia University. He spoke of having so many "rare opportunities":

> I have difficulty not being, not feeling superior. I mean I feel, as you've said, most fortunate than most of the people my age. Almost everybody I read about who are 100 or in their late 90s, they're in wheelchairs, perhaps very lively, but I think I'm very fortunate and I try to be humbled by it. I have difficulty...But actually I keep realizing this is not simply my doing. Lots of people enter into this. So many friends, so many influences, so many experiences. So it's not just being proud for myself alone.

Some centenarians are genuinely surprised by how other people regard them as special, and the fuss people make over them. Winfred, the oldest athlete in the Tennessee Senior Olympics, mentioned how, "every time you move, there's a half dozen people around trying to help you." Ralph is almost a little embarrassed by the accolades he's accumulated, particularly by the good press he's received in the local paper:

> Marty, he praises me for everything I do, and publishes it. Quite flattering. Quite complimentary. Really above and beyond. They've got me better than I am. They've gone overboard. I've been given here in Greenville, such things as recipient of the annual humanitarian award. And I've been given a number of citations or plaques. The state has give me, oh, two dozen special assignments or citations.

Audrey felt particularly puzzled by all the attention she'd received for still working at age 102. When a visitor pointed out that she'd seen her on the cover of a national weekly magazine, she replied:

> I was terribly surprised when I came out in Parade Magazine. What for? I've got one of them in the drawer there and I look at it once in a while and wonder what this is all about...It isn't because I'm pretty. It isn't because I'm smart. It isn't because I was well dressed...(Interviewer: It doesn't make sense to you, does it?) No it doesn't. Honestly it doesn't. (Interviewer: Because to you, you're just doing --) What comes naturally.

Rather than be esteemed for sheer longevity, Audrey preferred to be valued for what she has contributed to the lives of other people. She mentioned her

homesteading years in Wyoming, and how she and her husband attended the births and deaths of fellow settlers. Her skills set her apart:

> This sounds like bragging, but we didn't have a doctor when we went out there. People died. Babies were born. They'd come and get me. Take care of the babies. Lay out the -- John would build the caskets. We had a couple of the little babies that died. One of them was about a year and a half...And John built the caskets. I laid 'em out. Buried them. Had services. I've been so close to the heart, so close to the heartbeat and the soul of those families. I can't talk about it without getting too close to it again.

Later in her life, Audrey was held in high esteem by her Sunday school pupils. Audrey, who taught religious education classes for 75 years, recalled a recent chance encounter with some of her former students, now grown to adulthood:

> This sounds -- but I'm proud of it -- egotistically proud of it. Over at the auditorium one night, there was Madison Parker and we met, and he put out his arms and I said, "Oh Madison!" And a girl came up from this side, and I knew her then but I haven't been able to recall her. And they both of them said, "Oh what you've done for me. For me and my life," and so on. And I said, "Why I never preached a sermon in my life!" And she said, "You don't have to preach 'em. You live 'em." I've tried not to do anything that would make any of those children -- mine and yours and everybody else's that I come in contact with -- be able to say, "You fed me the poison."

The theme of Being Special is also portrayed in a rather unique way by several male centenarians who survived accidents, injuries or other close calls.

Monroe spoke of being struck by a car at age 99, and how amazed people were that he recovered. Winfred talked about joining the Army in the waning days of World War I only to be discharged when the Armistice was declared and "the Kaiser heard about me joinin' and he give it up!" Some centenarians report that they feel that accidents that would kill lesser men had little effect on them. For example, Bill mentioned how a car accident "cured" him of his arthritis. Frank, a pony soldier who fought Pancho Villa's army in skirmishes along the Mexican-American border, had a taste for adventure even in old age. He tends the property around his house as best he can, whacking at weeds with a sling blade. Up until a few years ago, he was still climbing trees to trim off dead limbs:

> I used to have prostate trouble pretty bad. And I always liked to climb. And I was up a tree back here...I can't think of what kind of a tree they are -- but they shed their limbs. I got the ladder and I went up as far as I could on the ladder and got to climbing and I got ahold of those limbs that shed and I just dropped! I'd got ahold of that limb to transfer over to that tree, and that limb just popped off and I fell about 13 feet. And I'd had this prostate trouble. And never had it a day after...I'm lucky. Seems like I lived -- like with that tree. Seemed like it always do something for me, more than it do against me.

These accidents, and their survival, mark centenarians as lucky and even somewhat "superhuman." Not only are they not killed by events that would undue lesser men, they come out the better for it.

Theme 2: Being Active, Doing and Working

Centenarians in this study are united in the high value they place on hard work. Whether they are describing exploits from their youth or enumerating the

tasks they face today, they portray themselves as energetic and effective. Activity is their life's blood. To be active, to do and to work, is to be alive. They admire energy in other people and consider it essential for themselves. They celebrate the extraordinary capacity for hard work they enjoyed in their past, and strive to be as active as they possibly can in the present. When doing and working are denied them, their loss is sorely felt. This theme -- Being Active, Doing and Working -- was found in all protocols and expressed in stories the centenarians told across several of the situations -- in the accomplishments they have enjoyed, in stories about their health and their bodies, and in instances that reflected their connection with other people.

Participants reflected on their successes over the years, and noted that the "prime" of their lives lasted well beyond their 60s. Most of them were active in work or volunteer roles into their 80s. Monroe, for example, was on the board of directors of a YMCA chapter when he was in his 80s, and taught Sunday school until his late 90s. Paul's life is still filled with volunteer activities for the church, the YMCA and the retirement center where he lives. Up until three years ago, he could play nine holes of golf, and he reminisced about his tenure as an international administrator for the YMCA and how he and his wife visited 30 countries in eight months. While Paul walks with a cane now, he notes that he is still active mentally:

> I can keep on, from the neck up, so to speak.
> In other words, I haven't found any diminishing
> of my outlook and interests and so on. I keep
> speaking and carrying on responsibilities,
> almost every time I'm asked. So I'm glad to
> have that part of me unimpaired by a hundred years.

Often their accomplishments were the envy of others, and in their telling, centenarians betray a striking sense of competitiveness. The Ford dealer, for example, talked about his record-breaking sales efforts that attracted the attention of Ford's corporate headquarters many years ago. At the height of his achievement, Ford sent a representative to ask Bill the secret of his success:

> So I was all over the country. I was workin' day and night. The district manager in Cincinnati...called me and made an appointment to meet me here one morning, 10 o'clock. Said he don't want to take up my time. He said we'd outsold everything on the Cincinnati branch -- 150 units a month -- and he wanted me to tell his sales manager and his field man how I done it. I told 'em it's simple. He says, "How's that?" I said, "I'se out here sellin' 12, 1, 2 or 3 o'clock at night. And I'd work a day shift at 9 too. That's how I did it." He said, "I told these boys that's how you do that." You had to work a night shift to do that.

Bill summed up his life story with a little advice:

> Hard work. Clean livin'. That's all it takes. Ain't nobody works himself to death. But hard work, clean livin' takes care of 'ya.

These centenarians do not simply turn to the past for examples of active doing. Several of them are engaged in on-going work, both on a grand scale and in small ways, building a legacy of accomplishments that sustains them in the present and benefits others in the future. Again and again, centenarians spoke about their current efforts to contribute to their families and their communities. Ralph, for example, spoke about his efforts developing the Andrew Johnson estate and how energizing the work is for him:

> Maybe ten years ago, I would often wonder
> about my life expectancy. How much longer
> you gonna live? Are you ready to go? I am.
> but I don't feel like going at all. I have too
> much to do, and that helps me a lot too.
> It's good medicine. Best that I take.

Paul listed his weekly activities -- leading a discussion group, performing wedding and church services, and consulting as an administrator "emeritus" with the YMCA. He recently detailed his life in an autobiography. His life has been so full, in fact, that he can barely imagine death as it is customarily viewed in the Christian tradition. He prefers to think of it as a kind of:

> recycling ...You may exist but you don't know quite
> in what way. It may be there are permanent elements within
> you that continue. So I don't fear death. The only question
> is I want to live as long as I can to get some of the things
> done that I want to do. I'd hate to have to leave and yet
> I know that I could...I don't have an interest in eternal rest.
> I hope there'll be an opportunity to keep growing and doing
> whatever it might be.

Audrey, who works as a copy editor, spoke about the importance of her work. For Audrey, to work is to live:

> If I couldn't come back I wouldn't know what to.
> It would shorten my life when they'd tell me not
> to come back anymore.

Participants also find small ways to contribute to their families and the people who care for them. Nanine, a retired preschool teacher, talks about giving her grandniece a car so the younger woman can visit her at the nursing home. Bill mentions the $3,000 he recently spent repairing the house he shares with his

daughter-in-law. Ralph gives extra money to one of his caregivers who is short of cash. These are some of the ways centenarians continue to be a significant presence in the lives of other people.

Being Active, Doing and Working also is expressed in the ways centenarians talk about their bodies when referring to their health and the close calls they have experienced. Winfred, for example, mentioned his record as the oldest athlete in the Tennessee Senior Olympics. He described his daily exercise routine:

> I bend my knees a hundred times when I get up,
> and I pat my feet 100 times. I hit the ground real
> hard 100 times. That's for my feet. I was just active
> like that. Everything I could get into. I danced too!

Julie spoke about walking the malls with her middle-aged daughter. "We don't stay home much," Julie said. "We get out and go." She often slips into her sneakers to accompany her daughter on the day's activities -- errands, helping with the great-grandchildren -- "I just get my little buns together and away we go!," she explained.

After his World War I muleskinner days were over, Frank worked as a pipefitter until forced to retire at 75. Nowadays, he does much of his own yard work, and walks with his nephew, Philip, a mile a day around his country property. When asked about his daily activities, he described a continuing battle against his leaky basement, cooking his own meals, doing the laundry and keeping track of the bills:

> I always liked to work. And if I failed,
> I'd just go back and do it again. To accomplish
> what I wanted to accomplish...I got a certain amount

> of work to do around the house. That's what I do. And talk on that old telephone. Sometimes I get with the people and go out to eat.

Hard work must run in his family. Philip mentioned that Frank's mother raised nine sons alone on a West Texas ranch after her husband's death. "She'd ride horses, drive teams," Philip said. "She never went anywhere without her pistol."

While centenarians make special note of their own level of activity, they also notice and admire it in other people. Winfred, for example, mentioned that the past few years have been especially happy ones for him since he moved closer to his niece and her husband who invite him to dinner and dances:

> In the eight years I stayed down at Edde and Louvenia's, I had a better time then I had all my life put together before that, because they believe in going! They think going from Knoxville to whatever that other city is, they don't think any more about it than we'd think of going to Fountain City from Knoxville. And Edde's a pretty good sport and we have a pretty good time. And Louvenia is wonderful. She -- they go to square dances, and I go and watch 'em. Last time I went, I got out there with Louvenia and danced one.

Julie gave glowing reports about both her husbands, noting what hard workers they were. Her first husband, Paul, was a maintenance man who was always ready to leap out of bed in the middle of the night if a service call came. She described him as a "workhorse -- He wasn't happy if he wasn't out having jobs, doin' something." Her second husband, Pappy, was active at the senior center, the board of health, and the school board. They met, in fact, at the senior

center where Pappy was a host. What caught her eye (besides Pappy's flannel shirt) was his can-do attitude:

> They were trying to organize a senior citizens' club. And he -- his wife had died, and I don't know, he was just like a daddy to all of 'em. There's a lot of widows in that club. So I never will forget. You know, men used to -- they may still do -- wear these flannel shirts, the big plaid. And he -- so he was a coffee maker. He fixed the coffee for the meetings. If you wanted him to pour you coffee, he'd tilt that big old pot up. And I went up to get a cup of coffee. And I said, "Do you make the coffee?" And he said, "Yes I do." And I tasted it and sipped it and said, "Hmm-hmm good!"

Losing the ability to be active, to do and to work, is mourned and in some cases, fought, by these participants. For them, doing is living. When "doing" is curtailed, these centenarians report feeling uncomfortably close to death. This is most clearly expressed in the conversation with Audrey, who uses activity as a lifeline to the living. She comes to work every day. When she's home, she plays the television for company. She especially likes the TV show "Wheel of Fortune," she says, "because they're doing things." She misses the authority she had as a younger woman in charge of an office. Now, instead of telling other employees what to do, she has to make suggestions and ask the boss' permission:

> I think that's probably the crux of the whole thing. I've lost my authority. I've lost my power to live to the best that I know. And I know it ought to be this way. It just hurts like everything.

She likened a forced retirement from a job at age 65 to being "turned out to pasture. They'll feed 'ya. Take care of 'ya. You get down and we'll shoot 'ya in

the head." She had some strongly-worded criticism for Social Security, which she believes robs people of the chance to be useful throughout their lives:

> That's the worst. I can't imagine what our government was thinking of. Reach 65 and lay out on the shelf and then offer to take care of you the rest of your life with Social Security and feed you and take care of you...And I still think it's the worst mistake our government ever made. I don't know what our representatives were thinking of. You got 65 now, you don't have to work anymore.

Despite others attempts to impose limitations on her because of her age, Audrey finds ways to fight back . When her doctor warned her, for example, not to work in her garden this year, she said, "I've just gone about doing what I wanted to do anyway. I haven't put in any garden, but I get around, take care of my bird bath, that sort of thing."

Even Margery, who spends much of her day dozing in her bed at the nursing home, is aware of activity -- in this case, in the way that she is not as active as she used to be:

> Then when I was younger, more active, they'd take me out somewhere for a special meal. I can't go now. The last time my daughter took me she got a chair lift van, and I could go in a wheelchair and stay in a wheelchair, you know, and they lifted it up in the van.

As the examples illustrate, centenarians place a high value on being active throughout their lives. Volunteer work, paid employment and household tasks form a large part of their day now, just as they did in their youth. When

centenarians can no longer contribute to their families, the memories of their energetic youth comfort them in old age.

Theme Three: Accepting Things and Being Satisfied

Centenarians' lives have a remarkably even quality. They do not torture themselves with guilty ruminations or obsess over trivialities. They avoid emotional extremes. They appreciate the small things, rather than long for the great. They often attribute their longevity to this patient acceptance of what life sends their way. Accepting Things and Being Satisfied is the third theme in this study. This theme is found in the situations in which participants spoke about their health and close calls and their connection with other people. Every participant offered examples that exemplify this theme.

Nanine's conversations, for example, are flavored with small exclamations of joy over her surroundings. Even though she lives in a nursing home (not a place most people would think of with affection,) she is struck by how pretty the day is, how lovely the facility's landscaping is, or how good the food is. Even in situations that others would find challenging or burdensome, Nanine looks on the bright side. When her sister's children were young and needed someone to look after them, Nanine stepped in, even though it severely limited her social life. "I had to do what I could do to make it happen," she explained. Even at her sister's death, a year shy of 100, Nanine looked on the bright side. "My sister," she said, died "in the night. She didn't know it. And it was a very good death because she just died in her sleep, which is a very good way to do."

Acceptance seems to be her life's motto:

> You make life for yourself. You can accept things
> that come along or you can wail against it. And I've

> always accepted it...I believe people with good dispositions live longer than other people. They're always fighting against everything, you know.

Other centenarians in this study also share her sentiments. They accept their physical limitations as the natural course of events. Margery talked of how she decided it was time to enter a nursing home:

> I reckon it was sort of a gradual adjustment. Gradually I had to give up one thing and then another, you know. When I found out I couldn't keep house for myself, I had to go somewhere. Well, that was just normal. It just seemed normal to me. The progressing years..I've kinda got adjusted to what my limitations are. I don't worry about it.

Bill the car dealer commented on his unsteady gait, but minimized the difficulty it causes him:

> That's my trouble now, fallin.' But I don't never get a scratch of any kind. You think you're gonna git hurt. I'm limber, I reckon. I just hit the ground.

Frank, in talking about his life's philosophy, said he learned early on how to get along in a large family as one of nine children:

> I remember when I was small, my mama would tell me to eat what you put on the table and keep your mouth shut. (Laughs.) Which was hard to do. Eat and keep your mouth shut. The right thing is to be satisfied.

Frank carried that ability to accept things as they are throughout his life. He reflected on his tenure as an army soldier in World War I, hauling supplies with

wagons and mules. Frank's patience apparently outlasted even the stubbornness of the mules:

> My job was driving a wagon that picked up supplies for four companies. Went out and draw the meat and groceries. Meat was the main thing. Had to get a quarter of beef every day for each company, and we had four companies. Go down there and draw that meat. Draw that bread. And I drove that wagon. Four mules. You couldn't hold them. You just had to let 'em run. And when they'd get short of wind, they'd stop. So you didn't worry about them. You just let them run. It was rough riding. Especially when you'd hit those rocks. But you couldn't hold 'em. Had to hold on and keep the reins as tight as you could. But they wouldn't run far. They'd get out of wind, you know. And have to slow down...I never did worry about anything.

Several centenarians talked about their acceptance of death. Ralph calls death "like a dream. You see your parents. You see your contemporaries." He says he doesn't fear it:

> When you think of it, we're just here for a short time. How'd we happen to be here? Here today and gone tomorrow. That's a good motto.

Even Audrey, who acknowledges her fears of dying, at times can approach the inevitable with equanimity when speaking about deaths in her family:

> I have grandchildren that are dead. We lost three of them. Drowned. One of them poisoned.

> Things like that, you know. It's reality.
> Where there's life, there's death.

Margery also takes a realistic view of dying. In an interview from her nursing home bed, she said without bitterness:

> I feel like I'll die here. That I won't make an improved change...I don't know if I anticipate dying anytime soon, but I'm just ready when the time comes. I say, "This will be my last place to live," you know...You just accept that everybody's gonna die. And you say, "Well, when my time comes, I'm ready to go."

Centenarians in this study tend to minimize the negative and accentuate the positive. They realize contentment is key. Paul expressed this beautifully in speaking about how grateful he is that his mind is sharp, even though age has taken its physical toll on him. He moves slowly and cautiously and walks with a cane. And yet, he says:

> I feel that somehow things work together, and if you do your part, things will work out. If they don't, you make the best of what's happened. (Interviewer: Should people be afraid of getting older?) No. Unless you have a -- I agree, if you have some incurable disease, like cancer or Alzheimer's -- so many of my friends have Alzheimer's -- you can't control. But I feel one is bound to be handicapped some as you get older. And there's things you'd like to do, you regret that you can't do anymore when you see people running around. On the other hand, you're thankful for what you have left, and you make the most of what you have left, at any age, any state. I think in a sense, every age and every stage has its advantages, and its difficulties, and you just make the most.

Having lived a century gives these people a unique perspective. They have a strong sense that a lot of troubles are not worth worrying about. Their sense of self has an integrity and consistency enriched by surviving 100 years of struggle and joy. As Julie put it:

> I have known in my life what a pauper is and what
> a millionaire is. I can't see no difference. I guess
> I was just as happy in one stage as I am in the other.

Theme Four: Caring and Being Cared For

Paul is well-known at the assisted living center where he lives. He serves on several committees, conducts Sunday church services and leads a weekly men's discussion group. His room is a clutter of books and boxes of mementos. Scrapbooks compiled by his children and grandchildren are heaped under the coffee table. Art gathered by he and his wife from their travels abroad -- Russian icons, a Japanese screen, folk art -- decorate the walls.

Paul mentions he is a writer, and that he has just published his autobiography. He shows a visitor his small bedroom -- a garret, really, with barely enough room for his single bed. One entire wall is lined floor to ceiling with books. There's a desk with a simple black manual typewriter perched on its edge, where he does most of his work and keeps up with correspondence from friends around the world. Since his wife's death several years ago, Paul has struck up a relationship with a woman at the nursing home nearby. She is 97. He visits every evening and watches TV with her. Companionship, giving and receiving, are important to him. Even casual visitors get a hug from him as they leave.

Like Paul, the other centenarians in this study appreciate gestures of friendship and value opportunities to treat others with kindness. This final theme,

Caring and Being Cared for, is expressed in all the protocols. It embodies an enduring connection to loved ones that transcends time. Caring is something that centenarians both provide and receive, and echoes a theme explored earlier -- Being Active, Doing and Working. This theme of Caring and Being Cared for exemplifies the life-sustaining bonds centenarians enjoy with family and friends. Centenarians expressed their need to feel cared for and to care for others in return. In actively giving gifts to loved ones, whether money, time or talents, centenarians feel vital and effective.

The theme of Caring and Being Cared for was reflected in the situations in which centenarians described their connection with other people. The most enduring connections described by centenarians were with family members. Participants spoke of beloved husbands, children and parents and offered examples of relationships that supported them in the past and those that sustain them in the present. Several centenarians pointed to their long history of caregiving, noting how they were called on as young adults to sacrifice their time and careers to look after aging parents and younger family members. Nanine, for example, recalled how as a young woman, she'd taken care of her mother and helped raise her sister's children, even though it meant giving up an ideal teaching job in Atlanta. Her mother became her companion:

> As I say, I went to Teachers College, Columbia University, and I taught two years in Atlanta. It was too good a job to give up, but as I say, at that point, my mother was by herself. And she said that she would never learn to drive a car. It was in the days a hundred years ago, when people were just learning to drive. And she said she would never do it because she'd be thinking about solving some business problems and no telling what she would do. She would never drive.

> So I did things with a lot of older people that way, taking her around everywhere and belonging to clubs she belonged to along with her. So I wasn't with people my own age but it was all right.

Margery mentioned that she'd lived at home for a few years after graduating from college because "my mother wanted me to stay so she could enjoy me some." These family bonds are not looked on as a burden but as the natural course of things. Margery mentioned how her grandmother had lived with her and her family when she was young, noting that grandmother "naturally would be happier with one of her children."

Now in old age herself, Margery has moved into a nursing home to be closer to her daughter. Her daughter and grandchildren visit her often, bringing her little treats. Because relocating brought the possibility of continued caring gestures from her family, Margery said her decision to move to a nursing home was not difficult:

> I realized that I had to go somewhere and of course, I decided -- My daughter said, "If you're going into a retirement home, mother, come where I can see you." So she helped me make that decision. But it was easy to make...And I got to see her oftener by coming here than when I was seeing her when I was in South Carolina. She didn't get to see me but once or twice a year. Christmas and Mother's Day...You want some family. I think that's one thing. As long as you live, you like to be near someone you love.

This theme of Caring and Being Cared for conveys the enduring role of relationships and the importance of affectionate gestures in the lives of

participants. Julie, for example, cried when she mentioned her first husband, although he'd been dead for over 50 years:

> I just miss, miss -- Paul...I never felt left out. Or jealous. Because I loved him. And we had a little house we lived in by ourselves.

After a long marriage and Paul's death, Julie married again when she was in her 70s. She still laughs when she thinks about how she became engaged to Pappy, the take-charge, coffee-making, flannel shirt-wearing fellow she met at a senior citizens center. Pappy had caught Julie's attention by being the most active participant at the center. Julie and Pappy were running errands for the center when he proposed:

> I went with him two years. I didn't think it was courtin'. I just thought it was friendship. And one day, he asked me to marry him...See they were trying to build up this senior citizen club, and if anybody had to go anyplace to get supplies, they sent him because he had a car and was by himself. And he asked me to go along with him. We went over to get greeting cards so they could get them out. They were trying to build up the club, you know. And on the way back, he asked me to marry him. And I laughed and laughed and laughed. It's a wonder he hasn't opened the car door and shoved me out. But he didn't.

Julie went on to describe the gestures of kindness she extended to her children's teachers and the nuns where her children went to school:

> And I was always acquainted with all the sisters and the teachers. And after we got -- I felt like

> I could spare the money -- I bought things for them. I'd buy ham and sent it to 'em. Or dressed turkey at Thanksgiving time. I always felt like those little gifts was just appreciation.

Julie's caregiving continued into old age as she and her husband started taking care of their grandchildren, despite her husband's initial reluctance to help:

> When the grandchildren started coming along, he (her husband) said, "Now, we had ours, and we didn't have anyone to help us with them. Seven." And he said to me, "You're not going to take care of grandkids and stay home all the time, 'cause I want you with me." But we kept 'em a lot. He changed his mind when he seen 'em. He loved 'em dearly.

Julie even attributes her long life to caring:

> Tender loving care. I had it everywhere. From my children and my two husbands.

Caring companions are a lifeline to the living. Audrey, for example, rehearses the names of her former Sunday school students. They are her tether to life. "As long as I can grasp their names," Audrey said, "I won't feel like I'm losing touch." Frank couldn't get along without help from his nephew and his family. As he put it, "If you didn't have somebody that cared something about you, you wouldn't be able to get out and go places all the time. You wouldn't be able to get any groceries like you need to."

Companions are a lifeline for Winfred too. A gregarious man who enjoys parties and dancing, Winfred attends activities at a senior center during the day, where he loves being the center of attention. In the evenings, he eats supper with

his niece and her family. Otherwise, he lives alone in an apartment. While he is often busy and outgoing, Winfred talked about those moments when he is alone and fearful. He described what that experience is like:

> Sometimes I get a little lonesome some time when I -- when nobody comes around, you know. I feel better when I've got company. And when they quit comin', I get kinda lonesome...It's sort of a sick feeling in your stomach. You just -- I don't know -- you just don't know what's gonna happen...You just feel like you're by yourself and nobody cares anything about you. And you wait for the morning to come and get rid of that night. Now most of the time, if I'm out there having a good time, I don't have that feeling. But it's when I'm lonely. Next door to me was a woman, her last name was Mrs. Finley. I forget her first name now. And she was the best thing to me there ever was. If I needed groceries or drugs from the drug store, why all I had to do was call her. She'd come and get them for me. She kinda got stuck on me a little bit. I tried to stay out of it much as I could. But she was good. I miss her. She was a good neighbor. Good friend.

Centenarians deeply feel the loss of companions. Age has taken most, if not all, of the comrades of their youth. This awareness is especially acute for Ralph, who never married, has no close living relatives, and often finds himself isolated from the contemporary world:

> When I tell you I live in another world, I don't like it. I mean, I'd rather not have it that way. I wish I had more friends. I wish people would drop in, call me up and say, "Come over." There's nobody to do that. The people I once knew, their children, they don't care anything about me. Especially their grandchildren. The people I'd associated with socially a great deal, if I still have respect for the name it'd be the

> great-grandchildren, not grandchildren. (Interviewer: You must miss your contemporaries.) Oh indeed I do! I tell you what's a fact. I do not have a confidant. I don't have a person who I can go on the telephone and say, "Ben, let me have $500. I've gotta have it right now." I don't have a man I can call. I don't even have a man I can call and say, "Come down here; I need you." He'd come, but he can't understand why I'd call him. They're not that close.

While caring attention from family and friends sustains centenarians in day-to-day activities, centenarians themselves continue to provide care to other people. This active caring fulfills another, somewhat subtle need centenarians express -- the desire to be a vital, contributing member. Caring for others is a way of caring for oneself. Giving gifts solidifies relationships and secures caring attention from others in return. Bill, who lives with his daughter-in-law caregiver, was quick to point out all the money he has invested in her property -- including the $3,000 mailbox he recently installed out front. Nanine, another centenarian, admitted she has less than altruistic motives in bestowing a car on her grand-niece, Nancy:

> And Nancy is so good because I've done things for her and made her a friend for life. I bought her a new car. She had no car and she couldn't get around and so I bought one for her. I had $300,000 in the bank.

Caring is a vital part of the centenarian's world. It binds family members to the elder, and the elder to the world. Caring ensures survival for centenarians, and it is their way of continuing to contribute to their families.

Centenarians and the Rorschach

In this final section of the chapter, several unique qualities from the Rorschachs of nine of the 11 participants will be discussed from an idiographic perspective. While the Rorschach is sometimes used to make judgments about the cognitive soundness of elders, no effort was made to use the Rorschach to evaluate the mental status of these participants. Rather, Rorschach images were examined with an eye for percepts that may help enrich the themes uncovered by means of protocol analysis.

The most striking characteristic of the protocols produced by these centenarians is the abundance of images related to death and transitions from one realm or state to another. All nine participants who took the Rorschach offered percepts in these categories. Some of these images -- doorways, creation stories, scenes from the judgment day -- are only rarely found in the responses given to the cards by people under age 65 (Exner, 1993). These images may represent a developmental process in the life world of centenarians as they grapple with their sense of mortality and the meaning of their lives.

Images of death were found in seven of nine protocols. Most typically, the percepts were of animals or creatures associated with danger and decay -- a buzzard, scorpions, "old hags," "screaming animals" and wasps with "the part that would sting you, do you damage." One participant saw "animals fighting" with their claws on Card II. Another participant mentioned a "feeling of destruction" on Card V when she saw a moth eating holes in clothes.

What was more striking, however, was that these dreadful visages were almost always followed by more benign, almost mystical images of transitions or transformation generated by all nine participants. Three centenarians mentioned doorways and gates. One woman saw a front door with a peephole on Card I, "so

you'll be sure to know who's coming in." Others mentioned landscapes in a changing season, or animals poised between two realms -- a creature, for example, "that can swim and fly too," or the "tree of life;" "a flower in late fall," or a "vine growing on a pole" with its dead leaves below, and new green leaves above. There is a sense that these images capture life suspended between two worlds-- part bird, part fish; summer and fall; life and death -- the full sweep of time conveyed in a single card. For some participants the connection between two worlds, the past and the future, life and death -- is vividly drawn. Certainly the retired librarian whose Rorschach was described earlier in this study, (Church, Handler, Benoit, 1997), illustrates this idea of transformation with her images of the "forming of creation" on Card IX, followed by animals rising from the ocean and crawling up onto the land on Card X. As if peering behind a parted curtain, the centenarian sees into another world here -- that of her own death, which occurred three weeks after she gave these Rorschach responses to the last two cards:

> **Card IX:** We're getting nature into creation here, because these animals are here. And nature's in trees, and that's coral, and here is blood. This is the most interesting one. I think of such funny things. It's about creation. The forming of creation.
> **Card X:** They're getting out of the ocean and climbing up on the sand. Crabs and shrimp and this is coral and sea urchins. There's even the formation of snakes and eels here...It's like when the doors begin to separate...

Another centenarian described what appears to be a creation myth when asked to respond to Card VIII:

> This is the Ice King up here. He's talking to the animals, "You go down on this side, and you go

down on this side..." It's from ages and ages ago,
when the world was covered with ice, and the Ice
King is waking everybody up."

Waking everybody up -- from the slumber of death, perhaps? The centenarian doesn't say. But she followed that response with an even more direct reference to mortality on Card X, where, overwhelmed by the colors and her own brooding thoughts, she quoted the poem "Thanatopsis" by William Cullen Bryant:

"So live, that when the summons comes to join
The innumerable caravan that moves
To that mysterious realm, where each shall take
His chamber in the silent halls of death,
Thou go not, like the quarry-slave at night
Scourged to his dungeon, but, sustained and soothed
By an unflattering trust, approach thy grave
Like one who wraps the drapery of his couch
Above him, and lies down to pleasant dreams."
So I try to tell myself, "So live. So live. Your
summons will come one day." See all the
beautiful people out there. (Participant gestures
to the next room, where her colleagues are
busy working. Inquiry: It seems to
be an image of an afterlife?) Yes. Because of the
change, the colors. They're spread out more, more
independent. They're not answerable for anybody
else's sins, only for their own.

The important thing is not the dying but the living. "So live, so live," the centenarian reminds herself. In this way, the Rorschach images amplify the themes centenarians spoke about again and again in their protocols. That they see themselves as special and active individuals, willing to accept what life offers, is clear from thematic analysis. In the Rorschach they are special, active and accepting too. They transcend death, translating it from a grim specter into

beautiful flowering plants or doorways that are easily crossed. It is as if death is the final "close call" that someone with special qualities, like these centenarians, can prevail over. These are active transformations -- God-like figures like the Ice King bid animals to wake up from their dreams, and creatures crawl out of the sea to take new shapes on land.

Some of these images are terrifying, without a doubt. Scorpions, stinging wasps and old hags are images related to humanity's darkest fears of aging. Yet the centenarians don't dwell on these images. They reinvest that fear into something vital, meaningful and alive, in the same way that they refuse to dwell on their slowed, aging bodies but instead relate stories of active engagement with the world and continued caring for family and friends.

CHAPTER IV

DISCUSSION

Old age hath yet his honor and his toil.
Though much is taken, much abides
And though we are not now that strength
Which in old days moved heaven and earth
That which we are, we are.

"Ulysses"
Alfred, Lord Tennyson

Lying in her bed at the nursing home, Margery remembered the grand celebration that greeted her 100th birthday. Thirty-two family members gathered -- children, grandchildren and great-grandchildren, some traveling from as far away as Europe to be with her that day. And though she appreciated the cake and balloons and their good wishes, Margery had a confession to make. "I hadn't felt any different," she explained in an interview. "I hadn't felt that I was getting old, that old, you know. It seemed like ordinary doings."

One of the most remarkable things about centenarians is their relationship with time. More than people at any other life stage, these centenarians seem to experience time as continuous, as a river flowing without treacherous upheavals or shallow detours. Rather than a crazy quilt, they see the parts of their lives as sewn from a single fabric. They look back and remember their childhoods. They live in the present and talk about what they're fixing for breakfast. They peer into the future, and see new monuments being erected in memory of their relatives in the

town square. They are often puzzled that people would make a fuss over them for living so long. As Audrey noted, looking at her photo on the cover of Parade Magazine that celebrated her longevity in the workplace, "I can't understand. It isn't because I'm pretty. It isn't because I'm smart. It isn't because I was well-dressed. (I was just doing) what comes naturally." Unlike Washington Irving's Rip Van Winkle, that 19th century tale of time and discontinuity, these centenarians do not awake from a "long nap" to suddenly find themselves as aged men and women out of time, strangers in their own bodies. Rip Van Winkle stumbled into old age exclaiming "I was myself last night, but I fell asleep on the mountain...and everything changed and I'm changed, and I can't tell what's my name or who I am," (Irving, 1974). Centenarians know who they are. The things that have been important to them in the past -- loving and being loved, staying active and being satisfied with life -- are the same things that are important to them now. That is why they talk about feeling the same in old age as they felt in youth. They, like Margery, tend to be surprised at the attention other people make over the "ordinary doings" of growing old.

That these centenarians see their lives in a way that is remarkably different from our current cultural interpretation of aging is clear. How can it be that centenarians come to define old age in terms of being special, as a time of activity, acceptance and caring, when the medically-driven model of aging understands it only in terms of decline? The idea that the final years of life are marked by disengagement and physical downturns has been previously discussed. It is important to note, however, that this view of aging is not one shared by these centenarians. It is culturally determined and is the result of a philosophical shift in our perception of aging that occurred chiefly in the Victorian era. Historian Thomas Cole in his book The Journey of Life (1992), discusses how western

civilization came to represent the aged as a medical problem that needs managing. While today's biomedically-oriented version of aging burdens the old with the yoke of decline and despair, our medieval and Puritan ancestors perceived it as a mystery that mirrored the mystery of God. For these ancient ones, aging was a time to be accepted and not fought against, a natural part of life and not an abomination. Life was circular. The body's decline in age lead to its glorious rebirth in heaven. Life was not a matter of discrete stages but a continuous journey that led to Christ. The endless coming and going of days and nights, the seasons, deaths and births, reflected the eternity of God. Those ideas were lost in the religious revivalist fervor that swept through America in the Victorian era. America adopted the imagery of being "born again," and embraced childhood and youth as the time of possibilities and aging as intractable limitation. Revivalists pitched their message of redemption to the young, and left the old to their ingrained ways. Rather than a reflection of the mystery of God, the elderly became a symbol of shame. Victorian reformers spread the gospel of health and hygiene, linking illness in old age with the sin and excess of youth. Rather than view the infirmities of age as a reflection of our universal inheritance of original sin, as the Puritans did, these reformers conceived of aging as evidence of personal moral degeneracy and advocated moderate eating, drinking and sexual fidelity as the secret to a long and healthy life.

The consequences of this vision reached a crescendo at the close of the 1800s, when a New York physician named George Miller Beard published a series of influential lectures noting scientists, generals, artists and industrial leaders reached the height of their professional success in their 40s, followed by a period of rapid intellectual decline. He chided any lingering sentimentality for the old as a "barbarian folly," (Cole, p. 165). Soon after, Beard's ideas were adopted by

another physician, William Osler, who suggested that men over 60 were useless. He proposed the country adopt a suggestion by satirist William Trollope that at age 67, elders be deposited in a special "college" called the Necropolis to enjoy a year of comfort and peaceful reflection, followed by a gentle chloroform death. Osler's remarks touched off a rash of suicides by men who felt time had consumed their usefulness (Cole, 1997). His proposal found a contemporary supporter in Colorado Gov. Richard D. Lam, who in 1984 advocated rationing limited health care dollars and proposed the elderly had an "obligation to die and get out of the way," (Cole, p. 169).

Psychology was not immune to this shifting view of aging. Coinciding with the flowering of Freud's developmental theories, German medical encyclopedias in the late 1800s devalued old age and noted human growth and potential was confined to youth and young adulthood. Is it any wonder that Freud's theory of psychosexual development celebrates the changes of youth, or that his intellectual peers, Erickson and Piaget, confine most of their developmental milestones to infancy, childhood and young adulthood? The Victorian image of old age as a vast desiccated desert, populated only by creatures waiting to die, slows our journey today.

In the midst of this wasteland are the lives and experiences of these centenarians. They belie this image of death and insist on life, even when it is limited by ill health or death of loved ones. They tell stories about their childhoods and talk about their futures. In the telling and retelling of their lives, they do not appear to be rehearsing for their death as Butler noted when he proposed older adults engage in a "life review" as preparation for their demise (Butler, 1963). Their reminiscing, rather, is a way to bring the past into the present (Merriam, 1993; Merriam, Martin, Adkins and Poon, 1995), to reinforce the continuity of

life, rather than its discontinuity. In telling stories of the past, elders are able to maintain a sense of integrity of themselves -- to see themselves as a whole, rather than the sum of their aching parts. Datan, Rodeheaver and Hughes (1987) note that in reflecting on the events of one's past, elders come to develop a consistent sense of themselves that transcends physical and emotional losses. This retelling of the past may make the present even more intense for elders. These centenarians in this study sense the preciousness of the everyday world, how rare each moment and how beautiful. That is what drives Audrey into work every day, and what keeps Ralph writing letters on behalf of the Johnson estate, and prods Paul to attend meetings and push those around him to contribute to social causes. Audrey talked about how she came to realize the importance of this extraordinary gift of time in her later years:

> I used to think, "Well, this year, this year. They're repetitious." They're not! Only once! When this minute is gone, it'll never come again. Life. The world. Eternity -- goes on that way. It'll never be there again. And people waste it.

It is this awareness of time that enriches the Rorschachs of these elders. Their protocols are filled with ancient symbols of life, death and transformation -- the seasons, the sea, plants and doorways. Images such as these have long been used to convey the idea of time in western culture. Hippocrates was the first to compare age with the seasons (De Beauvoir, 1996) and Merleau-Ponty drew the analogy between time and a flowering plant bursting forth (Chapman, 1997). The Rorschachs of these centenarians embrace those same ancient symbols, and in doing so, present an understanding of life that harkens back to medieval epistemology when earthly time was a reflection of heavenly time and death lead

to a new rebirth (Cole, 1997). There is no doubt that death is feared in these Rorschachs. It is a stinging insect, an ugly witch, a fearsome creature -- but death is also translated into an image that represents continuity, not discontinuity, transformation, not termination. There is a sense that these elders have their feet firmly planted in both life and death, that they can see simultaneously into the past and into the future. Trees in transition from summer to fall, plants with brown, dead leaves below and green above; creatures that crawl from the sea to take new life on land -- these sorts of images betray a sweeping sense of time and an ability to embrace the mystery of life in death. That is what the centenarian Paul means when he exclaims that he has no desire for "eternal rest," and that he hopes "there'll be an opportunity to keep on growing and doing whatever it might be." Living is so powerful, so meaningful for him, he cannot imagine death as cessation but only as a new beginning. These elders, then, have discovered a true being-to-death, an authentic mode of living that Martin Heidegger says is the result of confronting the inevitableness of death (Chapman, 1997). This confrontation of inevitable nothingness leads to anxiety -- the images of dread on the Rorschach such as stinging scorpions and spiders. But rather than only embracing the nothingness, they recreate new life in the Rorschach protocols. Every ending is a new beginning, a new doing.

That longing to be is underscored in the themes elicited from the various protocols. The challenge in old age is to continue to find ways of caring and being cared for, of doing and working, even if only in small ways. Frank stays active by whacking at the weeds on his property and going for a daily walk. Audrey does it by reporting to the office every day, and after work, by gardening a bit. And while her doctor has forbidden her from hoeing in her garden anymore, she strikes a small note of defiance by continuing to take care of the wild birds that visit her

yard. For centenarians too ill or limited to do physical work, the mental rehearsing of past glories and acts of kindness provides comfort and a sense of continuity. Monroe mentions his many advanced degrees and volunteer work. Bill brags about his sales record. Nanine talks of raising her sister's children. Memories of her first husband bring tears to Julie's eyes. Even if one can't "do," or has only limited opportunities to express caring in the present, one can remember the "doings" and affections of the past and feel satisfied.

The centenarian's active engagement with the world has been discussed by several social scientists exploring the terrain of old age. In documenting the lives of long-lived people in the Soviet Union, Alexander Leaf (1973) and Kenneth Pelletier (1981) have noted the importance of physical work in living to be 100. Belle Boone Beard, in her interviews with hundreds of centenarians, also was impressed by their proclivity for physical labor. Work is a cardinal virtue for centenarians, and has been since their youth. In a report on an on-going study of the effects of lifestyle factors, cognitive functioning and Alzheimer's disease among an order of Roman Catholic nuns, David Snowdon (1997) found that one 101 year-old-nun, Sister Mary, appeared quite cognitively intact at her death, despite the presence of telltale signs of Alzheimer's disease in her brain upon autopsy. Snowdon suggests the disease may be somewhat ameliorated by the sister's active life, which included teaching full-time until age 77 and part-time until age 84, followed by daily schedule of prayer and visits with friends until her death. Even in talking about their future ambitions, centenarians' plans focus on active engagement. Those in one study (Merriam, Martin, Adkins and Poon, 1995), mentioned projects like "finish quilts," "do charity work," "build a log house" and "get married again" among their future plans. The will to live, to care and be cared

for, and to leave a mark upon the world didn't end with middle age for these participants.

Just as this project underscores the importance centenarians place on remembering past accomplishments as a way of feeling active in the present, researchers have noted elders' ability to redefine old notions of health to accommodate their physical limitations in the present. The oldest-old tend to view declines in their health and functional abilities as temporary or "not-them, "even though the changes clearly are permanent (Becker, 1994). During times when their health is stable, disabled people tend to see their bodies as whole (Becker, 1980; Frank, 1986). Becker, in her 1994 study, found that people whose lives were constrained by living in nursing homes focused on what they were still able to do rather than on the abilities they had lost. Becker was struck by the striving for autonomy in her participants, all of whom were 80 years and older. She noted that they never used the word "frail" to describe themselves -- no matter how frail they actually were. Other researchers have proposed that much of the anxiety people feel over growing old is fear of dependency (Motenko and Greenberg, 1995). What these research studies highlight is the overwhelming desire be active in old age. Being unable to work, to contribute in some way to family and community, is a death sentence for centenarians like Audrey, who likened someone receiving Social Security to being a lame work horse who, having served his purpose, gets a bullet through the head. Retirement frees workers from the daily grind of commuting, deadlines and surly bosses, but it also eliminates what Patricia Moen of Cornell University (1998) calls the "social capital" of the workplace -- the sense of being valued for one's contributions and contact with like-minded peers. The subtle message of Social Security is that older people should retire because they have nothing to contribute; they have earned the right to be passive recipients of

assistance rather than active participants in their own lives. That these centenarians continue to work, both in paid positions and as volunteers, shows just how special they are. The knowledge that caring and doing are needed throughout the lifespan has begun to influence long-term care institutions. The Eden Alternative, a new philosophy of nursing home care, seeks to combat the loneliness, helplessness and boredom endemic in nursing homes by filling these often sterile communities with plants, animals and children (Church, 1998) to be nurtured by residents.

Of course, centenarians do not need to work to be considered "special." While we do not consider those who live to their 70s as unique, those who far exceed the customary lifespan have long been considered "special." Prior to the Victorian era, longevity was associated with virtue, and elders routinely exaggerated their age to gain respect (Cole, 1997). In contemporary times, elders in the Soviet Union, particularly those in the region of Georgia, have claimed to be upwards of 150 years to garner respect from other villagers (Bennett and Garson, 1986; Medvedev, 1974). Politics may play a part in age misrepresentation in Russia. Medvedev reminds readers that Stalin was a Georgian and enjoyed listening to tales about his long-lived countrymen, prompting local politicians to "uncover" more and more Georgians of extraordinary longevity.

The centenarians in this study, however, do not seem to place any great importance on the fact that they are 100, but that they are 100 and still doing and caring for other people. The ability to contribute to others is what makes centenarians "special." Researchers have commented on the esteemed role these elders play in the lives of their families, and that they typically are asked for advice or consulted on important matters or even asked to help with chores (Kropf and Pugh, 1995). The centenarians in this study also fill significant roles in the lives of their families and friends. Bill is awarded great accord and a special spot on the

showroom floor of the car dealership he founded. Nanine and Ralph give money to younger family members and caregivers. Ralph has a sweetheart in the nursing home with whom he spends time every day. Winfred is the unofficial "mascot" at the senior center where he eats lunch and takes great delight in joshing with the center's young female director. In her extreme old age, Margery left her native South Carolina to move to a nursing home closer to her daughter. "As long as you live," she explained, "you like to be near someone you love." Age alone doesn't make these centenarians special. The loving and caring they give to other people, and that they receive in return, does.

The final theme in these protocols -- Accepting Things and Being Satisfied -- is reflected in the literature on personality studies of the oldest-old. Becker (1994) notes that the elders in her study tended to view their lives optimistically, despite their physical impairments. Elders of this age tend to focus on what they can still do, rather than what they can't do anymore. Johnson and Barer (1992), for example, found that as the oldest-old become sick and their health declines, they redefine their social world and become content with living in a more restricted environment. Alexander Leaf (1973) spoke of the ability of the oldest-old to accept things as they are if they cannot be changed. That ability to accept the turns of life, to be flexible and optimistic, may be characteristic of those who live to the extremes of old age. Margery Silver of the New England Centenarian Study reports that female centenarians score significantly lower on the neuroticism scale of the NEO Five-Factor Inventory than a normative sample (1998). Silver thinks centenarians have a natural ability to handle stress, and remarked on their sense of humor and ability to roll with the punches, often despite having horrific lives. The centenarians Silver spoke with had survived the Holocaust, extraordinary poverty and other traumas. Yet as Silver described them, "They take a long perspective on

life. They don't get upset about little things. Even the changes that come with age, they accept," (Church, 1998).

The four themes elicited in this study -- being special, being active, being accepting and caring -- are a far cry from the model of decline and despair typically presented as descriptions of old age. These themes point to a new way of understanding these elders and of judging the normative qualities of aging at the extremes of life. If Freud is correct in asserting that love and work are the hallmarks of a healthy life in our younger years, why not in old age? Aging entails a multitude of physical losses, but for these participants, losses are offset by their continued striving to engage the world despite limitations, combined with a rich appreciation of the importance of other people in their lives. Their ability to cope may be an important factor in their longevity (Silver, 1998), and may have been evident early in their lives (Costa, Metter and McCrae, 1994). Perhaps one reason why centenarians are so accepting of life's changes and struggles is they have a remarkable ability to endure. Even on the Rorschach they turn images of death into images of life. These elders have developed a sense of what is important to them honed by many decades. And what is important to them is not the extraordinary events of history but the ordinary events of everyday lives -- their families, their commitments, their work. Aging for them is not a problem to be overcome but an opportunity to contribute to their families and to their communities. Their ability to endure and to appreciate daily existence is what makes these men and women special -- and what should rightly be a new focus for longevity studies in the future. Successful aging is not about disengaging but about learning to live despite one's limitations. The desire to love and be loved doesn't diminish with age, and the need for satisfying work endures throughout life.

It is important to note that the sample employed in this study departs from national norms for centenarians in several ways, particularly in gender, education and living arrangement. The present study attracted an almost equal number of men and women, whereas females far outnumber men in the general population. Data from the Bureau of the Census indicate that for every 100 women who reach the century mark, only 31 men remain (Krogh and Pugh, 1995). Women outnumber men by a three-to-one to four-to-one margin in most centenarian studies (Kinzel et al, 1986; Clayton, Dudley, Patterson, Lawhorn, Poon, Johnson and Martin, 1994). The education level of the present sample also is remarkable, with most participants having attended college. In national census data cited by Krogh and Pugh (1995), most centenarians had less than a 9th grade education and up to 10 percent had no formal schooling at all. Education level is correlated with longevity (Rowe and Kahn, 1998); well-educated people are more likely to engage in health-promoting behaviors like exercise, avoiding smoking and preventative health care. While the education achievements of this particular sample are notable, they likely will become the norm in the coming decades, as the World War II generation of men educated under the GI Bill -- and of course, their college-graduate baby boom children -- reach the century mark.

It is difficult to compare employment characteristics of this sample with those from larger studies. Few American researchers have tracked employment trends among centenarians. A Swedish study found that 39 centenarians out of a sample of 100 in that country had been manual laborers, 32 were in non-manual professions and 29 percent were self-employed (Samuelsson, Alfredson, Hagberg, Samuelsson, Nordbeck, Brun, Gustafson and Risberg, 1997). In his study of Social Security records from the 1950s and 1960s, Segerberg (1982) notes most centenarians grew up in rural areas and worked as farmers, but this is likely a

cohort effect, given that these individuals were young men and women when small family farms were the norm and more Americans lived and worked in rural areas. Certainly in the coming years more and more centenarians will likely reflect the range of professional occupations seen in the present sample.

In some ways then, this sample is unique and could surely be classified among the ranks of centenarians that University of Georgia gerontologist Leonard Poon calls "expert survivors" (Poon et al, 1992). They are well-educated, independent professionals. They do for themselves and contribute actively to their families and their communities. Their very departure from the demographics of the "average" centenarian highlights the heterogeneity of this group of remarkable people. Their engagement with the world stands in sharp contrast to attempts to reduce them to biological oddities devoid of coherent thought. In the coming decades as their ranks swell with the advance guard of the baby boom generation, it is likely that these 11 people will no longer be considered unusual, and their longevity will more likely be viewed as ordinary, not extraordinary.

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APPENDICES

APPENDIX A

HUMAN STUDY INFORMED CONSENT FORMS

HUMAN SUBJECT INFORMED CONSENT FORM

TITLE OF RESEARCH: Aging and the Rorschach: A Qualitative Analysis

PROJECT DIRECTOR AND CO-DIRECTOR:

Susan Church, University of Tennessee, Department of Psychology, 227 Austin Peay Building, Knoxville, Tennessee 37996; telephone (423) 974-2161.

Leonard Handler, Ph.D., University of Tennessee, Department of Psychology, 227 Austin Peay Building, Knoxville, Tennessee 37996; telephone (423) 974-6846.

The purpose of this research is to try and understand the role emotional and interpersonal relationships play in the lives of the elderly. As part of this project, you will be asked to complete a Rorschach Inkblot Test. The test takes approximately one hour, and will be administered at a location of your choice. This consent form will be stored at the University of Tennessee for three years past the completion of the study.

Your participation is voluntary. Should you feel uneasy or uncomfortable at any time, for any reason, please feel free to tell the researcher that you would like to stop and discontinue participation.

Your name will not be disclosed or reported as part of the study.

If you have questions regarding this study, please feel free to call Susan Church at (423) 974-2161.

I certify that I have read and understood the above and that I may end my participation at any time during the testing process.

_____

Signature

_____

(Please print name)

_____

Date

HUMAN SUBJECT INFORMED CONSENT FORM

TITLE OF RESEARCH: Milestones: A Qualitative Study on Centenarians

PROJECT DIRECTOR AND ADVISOR:

Susan Church, University of Tennessee, Department of Psychology, 221B Austin Peay Building, Knoxville, Tennessee 37996; telephone (423) 974-2161.

Howard Pollio, Ph.D., University of Tennessee, Knoxville, Tennessee 37996; telephone (423) 974-4361.

The purpose of this study is to understand the experience of having lived a very long time. In this project, you will be asked to reflect on some times that you were especially aware of having lived a long time, and to describe those times in as much detail as possible. Your interview will be audio taped, and will last one to two hours. Rest breaks will be offered. You are free to talk about any circumstances you wish, in as much detail as you wish. Your participation is completely voluntary, and should you feel fatigued or uncomfortable or wish to stop the interview at any time for any reason, we will stop. Many people find pleasure in talking about their lives, and I hope this will be true for you.

All material will be held confidential. You will be identified by a code number in transcripts derived from our conversations. Only the project director and project advisor will have access to your audio tapes and consent forms, which will be kept in a locked cabinet at the University of Tennessee.

It is possible that results from this study will be published or presented at conferences. By signing this form, you agree to allow your transcribed, written interview to be part of presentations or publications.

If you have questions now or at any time in the future about this project, please call or write me at the address listed below. I will give you a copy of this form.

Susan Church
Department of Psychology
221B Austin Peay
University of Tennessee
Knoxville, TN 37996
(423) 974-2161

I have read the above information and consent form, and agree to participate in this project, as well as to have all or part of my transcribed interview included in any publication or presentation of the completed study.

Signature: _____

Date: _____

Name (print):_____

VITA

Susan Church has worked as a news and features writer for newspapers, magazines and radio, and as a publicist for corporations, universities and public television. She also has worked as an aide in a nursing home and as a housekeeper in an orphanage. She was born in Honolulu, Hawaii, in 1957. She graduated with a bachelor's degree in English from the University of California, Irvine in 1980 and entered the doctoral program in clinical psychology at the University of Tennessee, Knoxville in 1993. She is serving an internship in health psychology at the South Texas Veterans Health Care System in San Antonio, Texas. She is the mother of two daughters.