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A Living Trilogy: Aging, Perception, and Environment

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Abstract

Aging is not theoretical. It is lived. Theories about aging are the result of deductive reasoning where scholars use the stories, observations, and history of individuals in their last quarter of life until death to better understand this final developmental stage of life.

In this article, the story of two elderly couples in their last years of life until their death serves as a foundation for considering the quality of aging in the details of daily living.

Not unlike studies that review the process of increase cognitive, sensory, and emotional resources in children, the same can be valuable to understand the lived experience of adults who are aging naturally until death. For those who "live it", letting go of well-established living patterns, personal effects, and meaningful activities become far more difficult when such an action symbolizes the end of a stage of life.

The individuals discussed are the parents and in-laws of the author all of whom died prior to the writing of this work. Personal and long-term knowledge of the individuals provided more detailed understanding of the individuals, their histories, and personal characteristics.

Using this narrative as example, theories of aging and human development a from gerontology, social psychology, environmental psychology, and human development, conclusions are drawn that give more insights into the overall experience of aging applicable to many who will go through the same experiences.

Keywords: aging in place, environments for aging, gerontology, Eden Alternative, successful aging

1. Introduction

Aging is not impersonal, academic, or theoretical. It is what happens to all of us if we are fortunate enough to live long enough. Therefore, the following paper looks at this universal human process starting with the brief story of two couples, four individuals, whose last few years of life provide a strong framework for discussion of aging, perception, and environment.

2. What Happened and Why It Matters

Born in 1919, my father, Al, experienced one World War in which he participated, the great depression, the advent of television and color television, air travel becoming an everyday affair,

records, cassette tapes, compact discs, and DVD's, fax machines, computers, dial phones changing to push buttons. He also was married to my mother for 46 years and, following my mother's death, married to Dottie for 22 years, until his death. He was a paradox: handsome, macho, impatient, driven, funny, and family-centered, often insensitive, mean-spirited, and selfish man. Having a brother who developed epilepsy at age 10 in 1935, Al despised the sick, the old, and basically, the weak. He held in contempt all that he would eventually become.

In watching him navigate the trials of aging, I witnessed his anger as he tried to compensate for his loss of hearing, his humiliation with incontinence, his dangerous driving, his sense-of-humor replaced by irritability timed to cover his inability the comprehend what was going on around him, his immaculate-care-of-Self-transformed into sweatshirt tops worn and spotted with food dropped from his fork or his mouth.

I further saw my dad, once able to add complex numbers in his head, become unable to manipulate a calculator or read his own writing. I watched helplessly as my father was shamed into using Depends® while becoming too stiff and inflexible to clean or dress himself. An avid newspaper reader, he wanted to read the newspaper and, yet, played with it, upside down, unable to comprehend the confusion he felt. I watched helplessly as my father was shamed into using Depends® while becoming too stiff and inflexible to clean or dress himself.

Not the first person I witnessed suffering through the ravages of age-related debilitation, my father followed my husband's parents, whose aging years became symptomatic earlier, at a younger age, and lasted longer. My mother-in-law, Latane Bryan Smith, had been diagnosed as bipolar, requiring institutionalization every few years for a manic episode. Although we thought whatever was wrong could be handled with medication, even that began to fail. By the end of her life, physicians had estimated she had had hundreds of Transient Ischemic Attacks (TIA). She could no longer swallow, talk, walk, understand, or remember. Until the last two years of her life, Latane had been a vital, energetic, active woman. As if she had awakened from a long sleep, her last lucid moment was prior to surgery for a broken hip, when she clearly expressed her fear to her son. She died from an infection one month later, at the age of 73. Her mother had lived well into her 90's.

Ossie, my father-in-law, had it a bit easier than either Latane or my father.

He remained good-natured. His decline was accompanied by a certain kind of acceptance or resignment to life as it changed. Having been a Superior court Judge for 26 years, when he retired at the age of 62, he seemed to relax into a life of less activity, less motivation, fewer things to do…and far less responsibility. Keeping his sense of humor, seeming to no longer want what he could no longer have, his last few years were peaceful. He was diagnosed with Chronic Lymphocytic Leukemia (CLL), subjected to periodic infections, pneumonia, and confusion. The CLL was not how he died. He died because he died. He had his sense of humor; he was always Judge Smith; he loved his family. And he was at peace.

Ossie's decline began long before that of either Latane or my dad.

Everyone in the family expected him to die first. He died two years after Latane and two years prior to my father. He died on time, at the end of his life at the age of 83, in an easy chair watching television. Latane died, frightened, and worn out. My father died frightened most by his own fear. Ossie and Latane had lived in an assisted-living facility for two years, loving it and appreciative of the help they received. My father spoke, with great clarity, only two months prior to his death, saying matter-of-factly, that the only way he would leave the nursing home, "get out" was to die.

The person not yet represented in these stories is Dorothy (Dotty), my father's wife, two years his junior, and the one who took care of him until four months prior to his death. Dorothy, also in her 80's, when my dad began his decline, had been an artist, a photographer, active in the Jewish community, well-read, and very particular about her dress and her home. As my dad became less competent, he began to be messy in his eating. Dotty would give him a visual cue to wipe his mouth and, eventually, gave him a napkin-turned-bib to prevent him from soiling himself, which he always did. She would criticize him briskly for not eating her food, for wanting foods that he 'should not' eat, for not being more physically active, for losing his balance (which somehow, he was supposed

to find), for watching the news, war movies, and anything on television (which was "a waste of time"). She also was not happy with him using the computer, being on the internet, and playing solitaire, the only game he ever played.

While a drone of mutual 'do it my way' dictums would come from both, the urgency of directives increased in acuity as both of them aged. My Dad slowed down and began staying close to home, not wanting to go out for anything but dinner and gave up golf. Dotty wanted more mutual stimulation, more intellectual discussions, and more books to talk about between them. She wanted what she had had but could no longer have while my dad was trying to hold on to what he could of himself.

The house was immaculate, every piece of furniture in place and every element, including artistic rugs and casual seating, was placed with great care. When my father began falling, the suggestion (imperative) that the throw rugs be removed was met with great disdain and resistance. When Dad could no longer get out of bed and a hospital bed was needed, Dotty said she did not want her bedroom "to look like a hospital room". She eventually conceded to removing the top mattress from their platform bed. When the carpeting became stained from a serious of bowel accident, she pleaded for new carpeting, which never happened. Her aging was timed differently than my father's. She was strong, driving, cognitively intact, and angry at the new reality suggested by moving literally anything, let alone removing even the smallest rug.

Regardless of all of this, my father and Dotty loved each other, bickered throughout their marriage, and were dependent in ways subtle and not so subtle. Until my father was unable to participate, they traveled together, went to Yiddish classes together, art shows, movies, and enjoyed most of their 22 years of marriage. The enjoyment was ended with the dramatic decline of my father and his inability to participate in the activities of their lives. His frustration, depression, irritability came from his awareness of his situation and inability to change it and, as well, was symptomatic of changes over which he had no control.

One additional change in my dad's behavior that upset Dotty and was without comment from my father was that he started calling her "Mother," which she felt was a referral to my mother. He never referred to this name because they had no children together. Thus, Dotty suffered more thinking that he did not know who she was and was missing my mother more than loving her. It was a chronic slip for which my father had no attachment and one that we tried to minimize to Dotty with little success.

Ossie and Latane referred to each other as they always had: "Maw (in the most Southern of drawls)" and "Ossie (Shortened from Oscar since his childhood)."

This account of these four people, related in marriage, but individual in their humanity, is not atypical. It includes, in part, the diverse and numerous physical and social challenges of aging. The question that remains well beyond the lives and deaths of my father, Latane, and Ossie, is whether their fate was determined by genes, was predictable by observing their age cohort, or was inevitable given their personalities or capacities. Or is the living process in older adulthood individual, based on complex, randomized, biological, cultural, social, spiritual, emotional factors predetermined only by the individual life lived? Does one, as Elizabeth Kubler Ross said, die as one lived, aging into the already mature and well-versed script in its final expression?

3. Aging, Perception, and Environment

While human development theories have attempted to explain or describe the essence of how we become who we are, the question remains to this day as to the integrated impact of human time, personal space, and perception. As a trilogy, inseparable from the experience of self and others, each of these factors has been studied. They each exist in the context of the other.

Bringing greater density to the trilogy is the contextualist framework that basically states emphatically that rather than person-in-environment, it could be said person-as-environment-as-person.

Contextualism, as explicated by Stephen Pepper, holds that rather than the typical duality between person and environment, the environment as perceived by the individual is the developmental mechanism that becomes the person. The *historic event*, often described as a time and place, is not so much an event as it is an embodied framework that, from the person, is indistinguishable from the experience of self. Perhaps a good example of the inseparability is

the relationship of a piece of music to a listener: the existence of music is dependent upon the perception of the listener and the listener only knows only his own experience, at once objective and subjective.

Age alters the experience of life and the environments in which it takes place. It puts into more rapid motion the conscious perception of self and brings to the forefront the duality between the world that once took on a sense of stability and the world that is but ephemeral in its very nature. The familiar changes in function and character; what is or becomes unfamiliar is manageable only to degree of capacity one must adjust. Personal spaces that at one time were secure, comfortable and easily taken for granted may become conflicted as time passes.

And perception of oneself and others, of the world as one sees it, once assumed, now demands conscious and intentional purposefulness. Cognitive experiences and skills mastered may be replaced through adaptation to different circumstances. (Baltes, 1987; Erikson, 1968; Kastenbaum, 1984; La Gory, 1988) Subsequently, the direct and indirect relationship between these three factors offers a myriad of theories and, as well, ample factors to consider.

4. Aging: Do We Know What It Is?

To provide a generic starting place, the *Encarta World English Dictionary,* now provided on most home computers, offers common definitions and usage options for the terms under consideration. For example, *aging* (or *aging)* is defined as "the process of changing with time, especially during the later part of life, however, the next definition, is "that natural or chemically assisted process of bringing foods to maturity or of making materials like wood appear older."

In considering adult development, what is striking here is the paradox between a person changing over time, either by growth (as in a child) or decline (as in getting older) and achieving maturity— striving to fain experience and age, to appear older, than one is. In current Western culture, age at once an achievement in youth, becomes a nemesis as life progresses. Resisting the evidence of time, it seems that once adulthood, or post adolescence is met, age is denied rather than celebrated, dreaded rather than anticipated, and hidden rather than showcased.

With life-span in the West having doubled from 45 years to close to 90 years between the start of the 20th century and that of the 21st century (Baltes, 2006), the paradox becomes more evident and less easy to reconcile. Many organisms achieve adulthood and independence in short order from birth, spending their life span involved in survival and procreation. When either of these efforts fails, life ends with little remorse. It is remorse, the conscious striving to live and continue living with purpose that differentiates humans from other species. The ability to project a future, conscious intentionality in living, has defined life progressively and contextually, causing the dilemmas and paradox of aging.

So enmeshed is the role of consciousness or meaning in the human life cycle, that loss of cognitive function, the ability to think and reason, has been linked to closer proximity of death. Like other organisms, physiological stability is based on biology and person-environment mutuality. However, aging may lead to reduction "in adaptive capability in general, hence increasing susceptibility to a number of internal and external events that increase the probability of death (e. g., Swan et al., 1995).

This is the primary relationship of perception to the aging process: to provide a means of appropriately responding to the environment so as to prevent injury.

Perception is defined as "the process of using the senses to acquire information about the surrounding environment or situation; the observation or result of the process of perception; an attitude or understanding based on what is observed or thought; the ability to notice or discern things that escape the notice of most people; any of the neurological processes of acquiring and mentally interpreting information from the sense (*Encarta World Library)*." Perception, then, is the conduit between the person and life, physical, social, attitudinal, relational. It is the development of the physiological capacity and the maturation of sensory system, together with increased cognitive capacity to interpret and respond to the environment, that defines development (Baltes, 1990).

Not limited to mechanistic functionality, human beings have the capacity and desire to construct meaning, develop motivation, and reflect, basically human agency (Dai, 2004; Zimmerman,

2004). This said, humans as living, adaptive, and open systems also make self-regulatory changes (Ford, 1992), and develop new patterns of behavior, skills, self-perceptions, values, dispositions, in response to adaptive pressures (Matthews & Zeidner, chap. 6; Zimmerman & Schunk, chap.

Such development is the basis for intellectual growth (Dai, 2004). Subsequently, over time, over a lifetime, as meaning changes, so perceptions change. The ability to interact with many environments (physical, social, economic, personal) of living is also impacted. In turn, as physical capacity changes, as demonstrated competence redefines itself, adaptation becomes more challenging.

5. Place and Its Meaning

This brings us to the definition of *environment*, a term with multiple meanings and comprehensive impact. The *Encarta World Dictionary* states that *environment* means **"**the natural world within which people, animals, and plants live; all the external factors influencing the life of organisms, such as light or food supply; the conditions that surround people and effect the way they live." Herein lays the challenge conditioned by both age and perception. The debate has been between mechanistic and organismic theories which hold the environment as a thing apart from the person, an influential aside, but not more than incidental.

Contextualism, however, assumes the person-in-environment to be merged, inseparable, unified, one impacting and becoming the other. The environment is inclusive of the person. Taken further, the person-as-self is defined by the environment. The whole (person-in-environment system) [can be defined/described as] people embedded in their physical, interpersonal, and sociocultural environments (Craik, 2000). This symbiosis is further complicated by the resulting perception which uses cognition as its mediator (Craik, 2000). In its most malleable state, the physical environment may be objective, but its meaning mutates, changes, is both subjective and objective, and, in many ways, becomes yardstick of age (Salthouse & Craik, 1991; Schneider & Pichora-Fuller, 2000; Whitbourne, 1996). "Environments do not change as humans change; they become the evidence of the process of "redevelopment," when the developed adult regresses for lack of capacity from normal aging process (Molnar, 2004)."

6. Aging and Perception of Self

What is aging? Is it solely a measure of time passed, generically attributable to all human beings? Is it culturally defined, an achievement of pride or shame depending upon social values? Is it inevitable?

Not everyone ages prior to dying. In fact, according to 2007 actuarial tables published by the United States Department of Social Security (Security, 2007), the older one is, the longer one is expected to live with longevity scales increasing with every year lived. Some people "age" in the process of dying, with acute terminal illnesses accelerating normal decline by decades. This could be relevant to the second definition of aging which refers to an artificial speeding up of the process. "Artificial" here might mean unnatural, or occurring as a result of an anomaly, such as disease, rather than the undisturbed organic process.

However, what is significant is the assumption that aging is the cause of physiological, mental, biological decay, all of which is likewise assumed to be inevitable part of life.

Studies have shown, however, that "aging" and "dying" are not the same but may be perceived to be related because of the expected termination of life, regardless of its timing. For this reason, the perception of self becomes relevant in one's quality of life and in what Baltes states as "Selection, Optimization, and Compensation (SOC)" (Baltes, Staudinger, & Lindenberger, 1999). Baltes and other lifespan developmentalists consider aging to be a stage of life rather than a preparation for death. However, it is the perception of self, filtered through the lens of either of these options that influences the quality of this process.

Of course, the debate has also triangulated between the role of evolution, of the human genome, and that of culture, within which are arts, sciences, and technologies. "Among these cultural resources are cognitive skills, motivational dispositions, socialization strategies, literacy, written documents, physical structures, and the world of economics as well that of medical and physical technology (Baltes et al., 1999)." In challenging evolution or genetic causes for the dramatic changes in longevity, Baltes points out the while life expectancy almost doubled between 1900 and 2000, the

human genome does not change that fast. Rather, he attributes the extended longevity to new technologies which have improved health status over the course of life and provided requisite means for adaptation to longer living. As well, Baltes points to higher educational standards and economic growth as equal variables.

While we will consider the application of Baltes' theories further into our discussion, what is relevant here is that lifespan theory has developed a strong argument for the role of culture, in its broadest definition, trumping the human genome, in extending life and, as well, as the quality of life. The assumption for this discussion is that illness has not impaired what could be considered a natural process. Cognition takes on a greater role in compensating for physical decline and, in turn, the more demanding of cognitive mediation, the fewer resources are available for 'innovation' (Baltes, 2006).

Baltes concludes with the quality of aging being dependent on the management adaptation and compensation for natural, biological decline. When capacities change, whether in hearing or seeing, walking, bending, or eating, basically the performance of *activities of daily living* (ADL), the process of selection, optimization and adaptation provides a method for management.

Further, as the tasks become more difficult, similarly managing and adjusting to inevitable physical and cognitive change becomes more challenging.

7. Self-Perception: Mirror, Mirror, on the Wall, Who Have I Become, After All?

Perception of self is and remains throughout the lifespan a developmental determinant. Sometimes linked to self-esteem, this connection is not as obvious as the relationship between self-concept and life expectations. Interest in the relationship between self-concept and performance, competence, and its deterministic role is plentiful. Studies on self-image and eating disorders, self-image and athletic performance, on potential and outcomes all, point to the weight of the self- perception being substantive.

For Ossie and Latane, their sense of who they were in the community in which they lived endured throughout their elder years, well past retirement. Once moved in the assisted-living facility, Ossie's sign from his court was put on his door, a red sign that read "Judge Oscar D. Smith, Jr. Presiding." He a remained a Judge his whole life and, for Latane, that also grounded her in who she was. For a Judge, getting older was a plus, one that goes back to the stories of King Solomon holding court.

For my father, in contrast, by the end of life, the work he had done as a manager of a family-owned hardware and lumber company for 27 years, was only talked about occasionally when an aide would ask me what he had done prior to retiring. His identity was far more linked to his health, his independence, his ability to be a good husband and father. Therefore, as he aged and his health, independence, role as a strong parent and husband deteriorated, so did his self- esteem and identity.

As telling symptoms of changes in age become evident, their meaning is not neutral or simple. While they may indicate a shift from youth to adulthood, mid-life to later-life, from old to older, they may also begin to deconstruct a well-developed self-image (Personality (CB), 2006). *Age identity*, because of social values, is positive in youth, feared in adulthood, and seemingly negative in later years, its momentum being identified as *aging,* symbolizing substantive values and projected decline.

One could look at age identity, or its meaning, as a bell curve. In this case, the infant, at the beginning of the curve, is innocent and time projects positive gains. In every society, while the exact rise of the curve and its peak may vary, that there is a positive trajectory in youth is without exception. One could say the middle-adulthood is a plateau of undefined length, with the years of professional and family maturing being, seeming to achieve stability. The question remains as to what indicators there are of an actual commencement of decline to the other side of this bell curve. Also, whether looking at the anticipation of getting old, which is life-long, intensifying with age, while expectation may be 'the worst,' once the chronological point is reached, the specific age previously thought to be 'old,' it is not uncommon for perception to change (Carp, 1981). How well an individual navigates the changes throughout the life changes, causes dissonance between the extant self-image and the new reality.

Transitions, as events, may serve as signposts that symbolize movement from one age category to another, as in the shift from worker to retiree.

Second, role occupancy, or roles as states, may have a more subtle or cumulative effect, as ongoing interactions and preoccupations lead people to feel a certain age because of the things they are doing, experiencing, and thinking about in their day-to-day lives. Indeed, chronological age may itself affect age identity for similar reasons. As noted above, there are some ages (such as 21 or 50 or 65) that have particular significance in our thinking about age, and that serve as signposts for movement into a different age category or status. In a more cumulative fashion, age is also associated with changing activities and experiences that may alter self-perceptions of aging. (Logan, Ward & Spitze, 1992, p. 452)

Maturation, emotional and cognitive development that provide leverage to forgive these unwanted changes in oneself becomes evidence of continuing development. "Although many changes occur in the later years of life, these changes must be seen in the context of both successful and unsuccessful adaptations to previous gains and losses throughout the earlier years of adulthood. This issue of continuity versus change is a major theme in lifespan developmental psychology as applied to the adult years and beyond. (Whitbourne, 1996).

8. Why Contextualism

If there were a need to define the mechanistic and organismic theories of human development, as Baltes claims, as "incomplete," it would be based on this concept that each person has an opportunity to experience their own life, in all of is length and breadth, uniquely until life ends. The continuity Whitbourne describes allows the uniqueness of the individual to be volitionally redefined, the quality-of-life indicators to change, and the losses to be outweighed by the gains.

Furthermore, while death may be the end of life, its inevitability is not necessarily a determinant as to the nature of the aging process or whatever turns out to be the last years or days of one's life. Nonetheless, the conscious awareness of time no longer being endless causes a significant shift in prioritization, and how challenges are viewed and allow the older person to set aside those difficulties that become irrelevant by virtue of a new point of view. Seeing goals in limited time frames is itself an adaptation and a distinction from how younger people may view their own goals. "Because aging is inextricably and positively associated with limitations on future time, older people and younger people differ in the goals they pursue (Personality (CB), 2006)."

Lifespan theory (LS) defines human development as a process that begins with birth and ends with death. In spite of continuing research and study, however, LS theorists have found that "individual (biological) maturational models of development (and, for that matter, purely social structural ones) are inappropriate and inadequate" for fully understanding the process of aging (Georgoudi & Rosnow, 1986).

The continuity of life is about all of us aging all the time. However, it is in aging at the last stages of life that we take issue with not until we reach this final stage, or become aware of our own mortality, that that separate it from. However, lifespan developmentalists put forth this concept of adaptation rather than change, with the process of moving from early adulthood to later adulthood as continuous.

9. Aging and Perception

9.1 A World View and the View of the World

From birth, so say human developmentalists, maturation of an integrated sensory system is requisite. This integration is so complex and sophisticated that regardless of which sense delivers the information, the same object is perceived the same way (Dai, 2004). For example, a marble is a marble whether perceived by touch or sight. Furthermore, "given the appropriate physical input, the structure of the human sensory apparatus in a human of any age, will ensure registration of the appropriate sensory experience. There is no developmental change in the registration of these direct givens, nor should there be any cultural diversity whatsoever (Gibson, 1979)," Barring any anomaly or injury, the human organism is universal up to the point when cognition, meaning, interpretation, and environment enter the fold. This is not long after birth, but certainly, as contextualism has claimed, provides evidence of variation of a unique nature and makes perception, as well, a distinct experience for each individual.

Until cognition develops, the infant's sensory development is not fully integrated, meaning the infant's self-identity is not in conflict with itself or its view of the world. Infants question or challenge the sensory input they receive.

Without going into detail regarding infant

development, Whitbourne describes the profound difference age makes in the following description:

Urinary incontinence, fear of urinary incontinence, experience of urinary incontinence, and causes of urinary incontinence is different for the young than the old, for a child vs. an elder. Thus, begins the adaptation phenomena of loss rather than gains. It brings to mind how an infant has no problem with diapers, with being changed, with any bodily function that is 'normal' and pain free. An elder, however, perceives self and future and present and attributes different meaning to such incontinence (Whitbourne, 1996).

The perception of self and the experience of life is filtered through this telling 'incontinence' that at once reveals the unidirectional process of age that can only be mitigated by cognitive and cultural resources. While incontinence is symptomatic of physiological inability or decline (depending on age), for the elderly, it can be perceived as part of the dreaded symptoms of a transition into the next stage of life, often feared to be the last.

The way someone perceives their role and place in the world has meaning. An individual can "feel a certain age because of the things they are doing, experiencing, and thinking about in their day-to-day lives… identities, including age identity, are developed and sustained in role relationships, and altered when roles change (Logan, Ward, & Spitze, 1992)."

Certainly, when referring to my father's last years, incontinence controlled his daily activities, it ruled his self-image, and it imprisoned him. The tyranny of the bathroom kept him from social events to avoid humiliating himself. Ossie, whose short-term memory was much worse, was unaware and unashamed. He lived up in the country and had few if any inhibitions about his body. He had not issued with an aide (female or male) changing his underwear or bathing him. My father was far more private and shier about his body. My father experienced these changes in him through clear thinking. He was painfully aware of his own decline and loss of identity and had little inner resources to help him manage.

There was not much discussion with Ossie or Latane about these changes. But, with my father, I was the one who valiantly bought him his first package of Depends and declared the breakfast conversation to be about "poop," trying to make light of what so very human.

Baltes provides a more positive view of aging by empowering the elderly, making the aging process non-fatalistic. He claims that making appropriate choices (selection), adapting to the inevitable changes by focusing on strengths rather than weaknesses (optimization), and compensating for losses attributable to age, offers a means for successful, and progressive development throughout the last years of life. He looks at aging as a heuristic process, one that can be and is often managed consciously.

9.2 Making Sense out of Sense

Perception takes other turns natural to the aging process. Visual and auditory acuity each take on changes that, in turn, cause a shift in perception. However, these changes often are confused with cognitive decline. Schneider points to the confusion or at least the ambiguity between perception and cognition that makes it difficult to identify which part of information processing is failing (Schneider & Pichora-Fuller, 2000).

The circle is formed this way: Perception informs cognition which informs perception. For example, for an older person to not fall, he or she must call upon visual cues, haptic cues, and proprioception. The well-integrated sensory system fluidly moves among its resources to compensate for areas of insensitivity. The sense of hearing, seeing, touch, spatial orientation, balance… if any one of these senses is impaired, the others take on a greater burden.

If an older person is slow to respond to verbal cues, while it may be caused in part by diminished hearing, it could also be caused by slower cognitive processing. The fact that an elderly individual has a clinically normal audiogram is no guarantee that there has not been a significant amount of sensory, neural, or sensory-neural degeneration leading to abnormal auditory functioning. Regardless of the cause, however, the very nature of an inability to respond appropriately to normal dialogue, again, becomes the environment in which one ages as much as incontinence does.

Given that development begins with the maturation of the sensory system, as this process reverses itself, the maturity as an individual allows one to compensate for sensory loss. Baltes claims that wisdom grows with age and expresses itself in acceptance of non-negotiable physiological deterioration and balancing

between cognitive skills by using resources as they exist. "…The older we get, the more the body calls on cognitive resources—for instance, when keeping one's balance or thinking while walking on uneven terrain (Baltes, 2006)." He goes on to refer to the "mortgaging of the mind," for the sake of making up for sensory loss as being part of the adaptation process.

This said, living with sensory loss in ways unintended becomes the social and interpersonal environment in which an individual lives regardless of their momentary location. Heinz and Browning outline the outcomes of dual sensory loss, specifically visual acuity and hearing impairment. It is not merely a loss of sight and hearing; it is clearly, as described in the chart below, a progressive disruption of social connectedness, self-expression, and participatory living.

While not all people may respond this way, the broad outline of long-term outcomes is not uncommon. (Heine & Browning, 2004)

10. Habituation: The Alter-Ego of Perception

The sensory system activates when aroused by new or extant stimuli. The stress experienced when things are new is reduced upon repeated exposure or reduction of stimulation intensity.

Kastenbaum offers a description of habituation studied in relationship to infant development, which continues throughout life. He considers habituation to be requisite to free the individual to focus on multiple events, people, ideas, lest the stress from over stimulation would be imprisoning. Behaviorists would describe habituation as the decreasing arousal related to repeated exposure to the same stimulus. What is new and unfamiliar becomes familiar. When something novel to our experience is introduced, the sensory system awakens, alerting us. However, habituation occurs with repeated or continuing exposure. It is, in effect, a desensitization process (Kastenbaum, 1984).

What this means in older adulthood, according to Kastenbaum, is different than at other stages of life. He looks at the intentional clinging to the familiar, the fear of new events (and the stress that accompanies it) as *hyperhabituation*, or the process of treating new stimuli as if they were familiar, having historical responses and meaning rather than being generative.

Symptomatically, it looks like "fatigue…, an inability to make certain discriminations among stimuli, and a disposition toward clinging to the past (p. 111)."

If perception is the result of sensation made meaningful, then habituation is, indeed its alter-ego. Hyper-habituation can be described as the imprisonment of the continuity of life as it is halted, frozen in a past, that, in its desire to repeat itself, bars new experiences from being new.

From his theory of hyper-habituation, Kastenbaum offers the following considered definition:

Aging *or Oldness is the emerging tendency to over adapt to one's own routines and expectations rather than to adapt flexibly and resourcefully to the world at large.* (Kastenbaum, p. 113).

The challenge in this discussion is the dialectic between perception and habituation, security, and development, offering comfort to the aging elder while not wanting to render them insensitive to themselves or others, or to the enlivening activities and new events which could be unintentionally rendered irrelevant.

11. Aging and Environment: What Changes?

The interface between person and environment is the sensory system and cognition. Conscious learning or experiences require the bare signal, triggered by external stimuli, processed by the senses made meaningful by the cognition. "All knowledge takes its place within the horizons opened up by perception (Merleau-Ponty, 2002, p. 241)." Memory plays a role in cognition as a lifetime of experience becomes the frame of reference from which meaning is extracted.

The epistemological framework used by adults is a complex, layered mix of objective truth based on perception and subjective interpretation of experience. There is an argument to claim that it is all subjective (according to the social constructivist view), especially when memory plays a role. Regardless, the physical environment in which one lives in both its embodiment and its relationship to the person, plays an active role daily life.

The residential environment has a major influence on older people's capacities to remain independent, to participate in the community and to maintain their sense of meaning in life. Housing and the built environment sustain and support human life, and thus directly and indirectly impact on health, social support,

absence of disease, quality of life and well-being.

Particularly for older people whose mobility is limited, the home environment encompasses the major activities of everyday life such as eating and preparing food, sleeping, socializing and spending time in meaningful ways. (Bridge & Kendig, 2005)

To fully understand the ways in which age and environment each play a role in individual perception relevant to aging, identifying the concerns or challenges does not always result in volitional redesign of living spaces. Urban elders whose homes were part of decades of personal and family history were reluctant to make changes that altered their connection to the past. However, these same homes that were the harbor of safety, security, good health, and familiarity, may imprison the older adult who no longer can manage its unyielding challenges.

In contrast to the urban elder, the rural elder experiences are different by virtue of how the community is experienced over a lifetime. Urban sprawl, changes in highways, adding higher-speed freeways, and loss of open spaces, resulting in a sense of loss they may be unspoken. While not a great deal of research has compared the rural and urban elder, it may well be that both experience a sense of "placelessness," with society moving too fast around them, experiencing profound loss. (Cooke, Martin, Yearns, & Damhorts, 2007).

Here we can revisit the concept of habituation if only to point out the obvious challenge in wanting to hold on to the stasis of the past (or its illusion), unable to do so for reasons beyond one's control, and being unable to re-develop into a new identity that requires a new space. Age identity certainly plays a role in this process and, as well, the risk of living a life that has slight change or has been designed to have little change.

Those who accept as real the stigma of aging are more willing to change behavior than to remodel their homes which could then tell those who visit that they have 'aged' or are otherwise less physically able (Bridge & Kendig, 2005). The collective shame born out of cultural and societal symbols that see age as a bell-curve of incompetence at birth, leading to competence peaking in adulthood, leading to incompetence in later adulthood. The assumption of aging being a social deficit comes in many forms and is depicted in many ways.

…We … seem to not see older people (over 65, say) as fully functioning and fully endowed citizens. How often do you see older people sold products in the media (except Depends, false teeth fastening gel, and vitamins)? How often do you see them portrayed as sexual beings in films or on TV—except as a joke? How many times are elders depicted as heroic?

Sometimes it seems we regard elders as little more than stumbling, bumbling, dementia-bound burdens on society. The social being of people—the social, historical, contextual content that frame older persons—has been painted in perpetually negative colors. This is a part of ageism (Saleebey, 2001).

Significant in this discussion is the social and political environment that makes it ever more difficult for an older person to easily seek assistance or make necessary changes lest she 'be found out' to be older. The harsh reality of Saleebey's statement is that it represents fears and anxieties that make compensation an admission of weakness or frailty symbolic of one's own decline. Ageism, if taken, suggests that living as an old person is of lesser value than dying as an old person. This would imply that, for the elderly or 'getting- older' adults, the fear of living could easily be more than that of dying.

The kinds of visible changes that make obvious the physical decline of an older person may include raised toilets, bars in the bathroom, televisions cranked up so loud that one might think that they were meant to broadcast into the next home. However, behavioral, and social modifications may look like irritability, or loss of sense of humor, repetitive discussions, and expressed fears before not mentioned. In the form of out-of-sync dinner discussions, what can look like memory loss, early dementia, or out-right self-centeredness, may easily be loss of hearing undiagnosed and, subsequently, untreated. The auditory environment plays a dramatic role in relationships and dialogue between family members, including the elder member (Mazer & Smith, 1999).

Not in conflict with Baltes, however, there are competing theories that state that the elder adapts to the environment in ways to maintain continuity rather than to instigate change. "…The congruence between individual competencies and environmental demands is

fluid, changing as aging individuals' energy and abilities wane. In response to concerns that this model of competence and press portrayed the environment as deterministic and the person as a passive recipient, the environmental proactivity hypothesis was advanced (Lawton, 1989 as cited in (Cooke et al., 2007)).” This theory looks at the challenges of the environment being taken on by the elderly who proactively, rather than passively, adapt. “As competence [in managing the environment] increases, a greater proportion of environmental resources becomes available with which the person may interact (M. P. Lawton, 1998).”

12. The Closed Triangle: Perception and Environment

While our focus has used aging as the constant, with environment and perception being changeable, the relationship between the environment and perception is one that holds perhaps the key to the outcome of inevitable decline.

We have already stated that perception links the person to the environment through the five senses, and those additional ones, such as balance, and place. However, what happens if perception becomes distorted or the environment, once home and secure, becomes hostile?

In response to the resistance of many aging adults to leave their homes of decades, the concept of “aging in place” has become a viable option. M. Powell Lawton has put forth the strongest argument and framework for this practice.

Achieving a congruence between the capacity of the individual and the demand of the environment is requisite for this to be possible (M. P. Lawton & Nahemow, 1973). The fluidity and malleability of space take on critical roles as the capacities of an elder change over time although the less the individual can adapt, the fewer environmental options are available.

Recent market changes anticipating the dramatic increase in a ‘getting-older’ population has resulted in adult communities that provide a full continuum of care. From independent living, to assisted living, and to skilled-nursing, custodial care, these communities offer a one-place-houses-all model so that those who can afford to plan and may not want to age in their existing home can securely move one more time without worrying about having to relocate again.

Looking at this model, however, the aging process remains individual, sometimes optimized by community living and other times succumbing to stereotypical isolated environments that are avoided.

Our concern here is not with the most ambulatory, financially stable population, as they have freely chosen to move their residence and change their lifestyle. Rather, for this discussion, we learn more from looking at assisted-living and nursing home care, what is referred to as long-term care.

Assisted living offers independent apartments, no kitchens (for safety), community dining, and supportive care. This could include assistance in bathing, dressing, in transportation to doctor's appointments. However, the population here, because of licensing, must be ambulatory (even in a wheelchair or walker, must be able to move around), feed themselves, and, while there are some activities, are left to their own choices. Medication may be administered, but the nursing staff is minimal. There is no physician on staff and most employees are low-paid aids. This progression in eldercare is not covered by Medicare or Medicaid. What is significant here is the partial, if not total, loss of independence. These residents do not drive; they need assistance with the activities of daily living and not a danger to themselves. While they can leave the facility with a family member or on a group outing, they cannot do so on their own, according to their own time and interest.

Nursing home care is one more extreme step in the loss of independence and control. When a resident in assisted living can no longer walk, starts wandering (from dementia or early Alzheimer's), and requires more supervision and control, they are referred to a nursing home environment. In this setting, few options are at the choice of the resident. They bathe, eat, take medications, and must basically set their daily lives according to the schedule of the nursing home. Many cannot leave for a disability. Their families visit but do so on a limited basis.

Taking these descriptions, the loss of independence becomes significant in adult development as other symptoms begin to evolve. While rehabilitation and acute care facilities are short term residencies, long-term care is often 7-weeks to 6 months, to several years. Studies have shown that such extended loss of control,

lack of anticipated changes or re-establishment of autonomy, can lead to depression (Barder, Slimmer, & Le Sage, 1994). Further, depression becomes symptomatic of learned helplessness, increasing over time.

In learned-helplessness theory, the expectation is that no action will control or affect outcomes now or, more relevant, in the future (Seligman & Elder, 1986). These symptoms include "passivity, cognitive deficits, and emotional deficits including sadness, anxiety, and hostility, a lowering of aggression, a lowering of appetitive drives, a set of neuro-chemical deficits, and an increase in susceptibility to disease (Seligman & Elder)." Like depression, these symptoms, as stated earlier, can become causal in further decline and may accelerate death.

The impact of the environment, the institutional setting, plays a role in messaging the lack of power back to its residents. Subsequently, and often not perceived as such, helplessness becomes the institution's environment as one person is to another. Human agency is as much dependent upon perceived rights and powers of self-determination as it is upon it being acknowledged in the social and physical milieu of one's life.

In her review of nursing home life, Ice provides some sobering statistics pointing to an improvement in the physical structures, increased regulations, have not dramatically changed the lived experience for the institutionalized elder. She looks at the daily life of the residents, observing them every 5 minutes for 13 hours. She finds that they spend "56% of their time doing little or nothing in passive activities, 23% of their time in personal care, and 20% of their time socializing." She continues describing independent living residents spending approximately 40% of their time in passive activities and 28% of their time in social/expressive activities (Harper, 1998). In a recent study of healthy community-dwelling elders, we found that 38% of participant's time was spent in social/expressive activities, while 17% was engaged in passive activities (unpublished data) (Ice, 2002)."

13. It May Not Be as It Seems

Nursing home administrators and activities directors consistently work to draw in residents into activities knowing the benefits of participation and the risks of passivity. However, the reasons for the lack of participation may not be obvious.

Baltes, in his detailed study of perception and cognition, separates the issues of cognitive decline from the self-aware elder who volitionally isolates or stops participating because they cannot keep up, their responses are not fast enough nor are they comfortable bringing attention to their predicament (Baltes, 1987, 1996; Ice, 2002). This would apply to the isolated elderly, unable to handle daily stresses and tasks, but living alone, no longer participating in the community.

There are reasons to consider the risks of institutionalized care beyond the obvious. Kastenbaum would say that habituation and hyper-habituation resulting from the sameness of institutional care would contribute to cognitive decline and isolation. Learned helplessness is, itself, a kind of habituation and resignment that would make participation in new activities with new people huge challenge. If we add the changed self-concept defined within a context of collective decline, the sum begs for a more positive outcome.

Optimizing life for an older person whose individuality becomes defined by Their diagnosis, their disabilities rather than their abilities, and their compliance with institutional rules rather than their self-determination is the spoken goal of long-term care. However, the systems themselves do not set their objectives around individuals; they are generationally defined. New models of care are being developed that focus on the empowerment of older individuals by utilizing what they can do rather than designing according to limitations.

14. The Eden Alternative®

In 1991, Dr. William (Bill) Thomas founded the Eden Alternative as a new model of elder care. Focusing on capacity rather than incapacity, the Eden Alternative sets up a human ecological system, where the residents, through the practice of horticulture, introduction of resident pets, and a proactive focus on the individual-as-person, become stakeholders in the environment, rather than passive dependents. Its mission is to rid the nursing home setting (which includes assisted- living and skilled-nursing), of "the plagues of Loneliness, Helplessness, and Boredom that make life intolerable in most of today's long-term care facilities (www.edenalt.org)." The focus is on meaningful companionship

among residents, caring relationships among the residents and staff, intergenerational interactions, and an active relationship with nature.

The success of the Eden Alternative to date has been stunning. While still anecdotal, the obvious benefits have generated Eden-like frameworks. The market is demanding better experiences without wanting to wait for years to tell the story in firm data. Currently, there are over 300 facilities that are certified as Eden sites.

If we look at the ten principles of the Eden Alternative, it becomes clear that the theories described here are in play:

1) The three plagues of loneliness, helplessness and boredom account for most of our Elders' suffering.

2) An Elder-centered community commits to creating a Human Habitat where life revolves around **close and continuing contact** with **plants, animals and children**. It is these relationships that provide the young and old alike with a pathway to a life worth living.

3) Loving companionship is the antidote to **loneliness**. Elders deserve easy access to human and animal **companionship**.

4) An Elder-centered community creates opportunity to give as well as receive care. This is the antidote to **helplessness**.

5) An Elder-centered community imbues daily life with **variety and spontaneity** by creating an environment in which **unexpected and unpredictable interactions** and happenings can take place. This is the antidote to boredom.

6) **Meaningless activity corrodes the human spirit**. The opportunity to do things that we find meaningful is essential to human health.

7) Medical treatment should be the servant of **genuine human caring**, never its master.

8) An Elder-centered community honors its Elders by de-emphasizing top-down bureaucratic authority, seeking instead to place the maximum possible **decision-making authority into the hands of the Elders** or into the hands of those closest to them.

9) Creating an Elder-centered community is a **never-ending process**. Human growth must never be separated from human life.

10) Wise leadership is the lifeblood of any struggle against the three plagues. For it, there can be no substitute. (Thomas, 2007)

Without going into a long discourse regarding these principals, the bolded words address the issues discussed in this paper: the need for meaning, avoidance of learned helplessness, the need for change, new activities and continued learning, control placed back into the hands of the elders (or their loved ones), and, most of all, the empowering of the individual, identified by who they are, not their age cohort or symptoms.

Unlike acute care or rehabilitation facilities, long term care facilities are the homes of those who live there. There is no expectation that they will leave prior to death. Because of that, the relationships that occur, the environment in all of its forms, and the self that either adapts or struggles becomes the self that is the final identity of the individual. A new or different identity defined proactively as one finds new methods of self-expression, albeit different than at any other time of life, is far healthier in terms of the traits of healthy aging described by Erikson than a vacuous identity lost in the prison of institutional anonymity.

15. Summary

Revisiting the stories of my father and Dorothy, Ossie and Latane, it seems that the aging process and its challenges expressed themselves in distinct ways. However, what represents the void in their developmental process was having the knowledge, insight, or guidance to prepare for the changes in their spouse and themselves.

Looking at adaptation, each family did so reluctantly. As my father continued to fall, Dotty refused to move the throw rugs or change the furniture arrangement to make it easier for him to avoid accidents. She did everything she could to maintain her life, as she knew it. When we finally got 24-hour live in help for her, she was at first relieved, and then most critical. My father was irritable, most comfortable watching the television, sleeping and eating. He had congestive heart failure, which exhausted him. Meals were the highlight of the day…which it seems continues in all settings.

For Ossie and Latane, their country-place of 50 years became unmanageable.

Ossie, long before being diagnosed with Chronic Lymphocytic Leukemia, had memory challenges and un-characteristic passivity. His self-test for competency was working with the Rubik's cube (formula memorized) and doing crossword puzzles. Latane was panic stricken about losing Ossie, which exacerbated her mental condition.

At one point, after years of being told no one could clean the house but Latane and they did not want anyone in their house, I offered …insisted…upon cleaning it. This was the first break in the standing refusal to allow us to help them. Other changes then took place over the next year, including moving them from the country place into town, into independent living, then into assisted living. Their home stayed in the same condition until after they died. We would take them there to visit…but after a while, they did not have any interest in going.

Habituation expressed in holding on to the past and not seeing their home as unkempt, in need of repair, was the outcome of many years of maintaining stasis rather than succumbing to changes they did not want. Continuing to do what they had always done was the pattern. As they could do less, exerting control could only be expressed in their individual right to veto decisions offered on their behalf; this increased as their individual abilities to act for themselves decreased. The "terrible two's" often used to describe two-year-old children who begin to find their own identity by saying "NO!" over and over is repeated at the end of life for the same reason.

While much more can be and has been said and studied about aging, environments, perception, self-perception, and social and cultural values that become contextual determinants in how individuals see themselves, the focus of this paper has been to look at the relationship between to these three factors regarding how lifespan development is evidenced.

Perception is a function of neurological systems, cognition, and meaning derived from lived experience. Perception is ongoing over life, with changes being the source of information being processed. Vision is supported by memory and context; hearing is supported by vision; touch or haptic response begins to rely on memory, vision, and any other accessible resource. The sensory system integrates information in ways that create and recreate new environments to the degree that an individual can create meaning.

All of this being accurate, perception of the external environment is underwritten by the perception of self, the filter through which meaning is derived. For this reason, environments for aging remain a challenge that has yet to fully optimize the capacities of older adults regardless of their stage of decline. "People do not grow older in a vacuum, but in a complex environment that is also changing over time. Because an increase of one year in age is necessarily accompanied by an increment of one year in historical time, and because aspects of the environment relevant to cognitive functioning could change over time, a serious confounding may exist between effects attributable to age-related endogenous changes and effects attributable to exogenous changes in the environment. (Salthouse, 1991, p. 84)

Institutions deal with physical and organizational spaces. However, an older person's world, as described by Erikson and Baltes, is first generated from who they think they are, from their capacity grown over a lifetime to re-develop at each life stage. Therefore, unless the cues in the micro-environment, nearest the individual, supports individual agency, dependence will replace independence in the vacuum of unspoken helplessness.

The nature of the study of human development is that it is never conclusive, nor does it conclude. As an ongoing study of generations lived, those living, and those not yet conceived, the dialectic between the biology, or historic evolution of the human organism, and the consciousness as expressed through cognition, perception, and meaning making, will continue. Studying aging as one is considering one's own age gives yet more press to understand what is real from what is not, where human agency expresses itself and where the wear and tear of living comes to a natural conclusion. Even with the small, myopic view of life we have, generations overlap with the preceding and the next, defining the human processes anew. Therefore, it is hoped that while this discussion offers a glimpse into the complexity of a life lived and its many layers and contradictions, it will stimulate the desire for greater insight into the many ways of aging.

16. Epilogue from a Personal Perspective

It is not possible to research and write this kind of paper without identifying in my own experiences, fears, and ways of living that may be in front of me because I, myself, am aging. While on an intellectual level I have a much greater understanding of the 'why's' of specific behavior, I also feel that I do not live in my understanding. Rather, I live in my conscious

engagement with life and living in a way beyond and so much deeper than intellectual comprehension, than objective data and qualitative theories that, while accurate to a degree, are also unrelated to how I see myself now or in the future.

During the lifetimes of my parents, Al (and Beatrice, my birth mother), Dottie, Latane and Ossie, aging and being aged were observed, experienced, but not discussed. There was neither a place nor time to engage in personal and intimate sharing of fears and expectations, feelings and thoughts about oneself and others that would bring some relief to the innermost fears that clearly accompanied each person in unique ways. I recall my mother saying to me, unexpectedly, "My hands still look ok, don't they?" At the time, I did not fully understand what she was saying. Now, however, as I look at my own hands, mildly speckled with still not-too-obvious age spots, I think of her and wish we could have discussed her concerns.

I had many discussions with my father, and yet his curt answer was one of detachment until it turned into fear and anger. He had no ability to accept this process for himself. It was painful for me to see his fear and not be able to effect relief for him. It was also a sign of my own adulthood that I began parenting him, comforting, and counseling him, a role that was both comfortable and uncomfortable.

In closing remarks to this journey, the most pertinent unanswered question regarding aging, perception, and environment, is what, if anything, could have made a difference in the lived experiences of these four adults so personally enmeshed in my own life. From one perspective, a case could be made that the research indicates their individual and distinct struggles with failing bodies and minds were within the norm of their age group and condition.

However, taking a different view, I would offer that what made this so much more difficult for everyone involved, directly and indirectly, was the lack of candid dialogue over a lifetime that would allow more forthright discussions and decision making between my father and Dotty, and between Latane and Ossie. The lack of understanding on the part of the physicians who stayed within the confines of the physiological and medical challenges, again, made this process more difficult. Each of individuals I was unable to fully discuss how they felt, what they wanted and needed, and what was happening to them.

Add to this the inability of the physicians to address the obvious, the cardiologist whose goal was heart-attack prevention when the outcome was a dramatic loss of quality of living, the internist who kept telling Latane to take B-12 rather than deal with her emotional distress regarding her fear of losing her husband, and my own frustration and failed efforts to permanently remove throw rugs to take care of my Father while Dotty saw her whole life being shattered.

I do not believe that knowledge in and of itself can cause change or provide comfort. I do not see that in a moment, as an older old person, fears of aging can be mitigated by being told that their experience, thoughts, and feelings, are "within the norm." Rather, in agreement with Erikson and Baltes, the vital involvement in one's own life, the ability, will, and desire to compensate and renegotiate priorities to adapt to an ever-changing mind and body, offers a better chance of travailing the unpredictable journey of life until its very conclusion both successfully and resiliently.

17. Conclusion

Optimal aging requires acknowledging and adapting to ongoing changes in the individuals, including physical, emotional, sentient, and cognitive shifts. For those whose lives have been defined by stable living, such as living in one home for over 50 years, decades of artistic investment in home décor, and traditions represented by specific rugs or chairs, giving those up in any meaningful way is difficult.

Challenges that arise when using only evidence from studies that suggest changes appropriate to the health status of a senior may conflict with personal preferences, habits, and autonomy of the individual. When combining an understanding of the individual circumstances, history, and meaning attached to their own life histories with recommendations, outcomes will be more satisfying and successful.

Aging is personal and private and not always linked to chronological numbers. Evidence-based practice calls for the best available research, expertise of the practitioner or clinician, and the personal values and preferences of the patient. Additional research, including case studies and literature reviews, is

needed to fully understand the lived experience of elderly whose circumstances demand changes they may not want.

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