Self-expansion in Adults Aged 50 and Older: The Role of Volunteering

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Abstract

Theories in gerontology often imply that successful aging requires the avoidance of disease and decline. The self-expansion model of motivation and cognition (SEM, Aron & Aron, 1986) offers a framework in which phenomena in later life can be examined from a perspective of personal growth and continued development. A pilot study explored self-expansion in adults aged 50+ across different life domains; subsequently, a longitudinal study focusing on self-expansion in volunteering was implemented. A total of 111 active volunteers in the Retired and Senior Volunteer Programs (RSVP) in northern Nevada completed a modified version of the self-expansion questionnaire (SEQ, Lewandowski & Aron, 2002) approximately three months apart. Measures specific to volunteering (role-identity, commitment, volunteer functions) and more general measures (future time perspectives attitudes toward own aging, morale, mastery, attachment style, curiosity and exploration, and personal need for structure) were also included in the survey. Findings of these studies provide evidence that self-expansion occurs in adults aged 50+. Self-expansion in the domain of volunteering was remarkably stable over time. Self-expansion at Time 1 predicted the development of a volunteer identity at Time 2. Future time perspective was found to be concurrently predictive of development of volunteer identity: however, to a lesser degree than self-expansion. An increase in the volunteer function of understanding was also predicted by self-expansion at Time 1. Overall, results from these studies support the use of the self-expansion model in populations aged 50+, and focus attention on aging as a process of continued psychological development.
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Becoming is difficult; becoming a Ph.D. is extraordinarily difficult. There have been many extraordinary people along my academic journey who have influenced, motivated, mentored, and guided me. I am very grateful to Dr. Colleen Murray who has been an ever-present, yet subtle, influence throughout my educational experiences at the University of Nevada, Reno. Dr. Murray gently guided me from my undergraduate studies into believing that I could accomplish a master’s degree and ultimately the doctoral work presented herein. Dr. Murray’s knowledge of research methods, theory, and survey design greatly influenced me throughout my academic experience.

On this journey, in a very intriguing and challenging seminar taught by Dr. Markus Kemmelmeier, I first learned of Aron and Aron’s (1986) self-expansion model, a model that has fascinated me and is the source of my dissertation research inquiry. What if the self-expansion model was applied to research with older adults and across theoretically identified domains other than close personal relationships; would a different perspective of both aging and self-expansion emerge? Could a core social psychology theoretical framework be successfully applied to inquiries in the field of gerontology? Dr. Kemmelmeier’s willingness to take on the challenge of answering these inquiries as my ever patient, yet demanding, advisor was pivotal in my academic career. Danke schön!

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Finally, thank-you to all of my colleagues at the Sanford Center FOR Aging and the amazing RSVP volunteers! Together we are “Filling the GAP”¹ and working towards a better world!

¹ Gerontology Academic Program (GAP), Sanford Center for Aging, University of Nevada, Reno; also the student based Gerontology club which strives to fill the GAP between students and professionals specially trained to work in the field of aging and the needs of older adults.
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Chapter 1 - Introduction

Being “old” is not popular. Some even say that becoming old makes you invisible (e.g., Wolf, 1991). Nevertheless a rather large group of Americans are entering the category of “older adult” as they begin to reach the traditional retirement age of 65 (Kinsella & He, 2009). This group is composed of 78 million Americans born between 1946 and 1964 known as “the Baby Boomers.” Boomers have traditionally challenged societal norms with events such as Vietnam War protests, civil rights demonstrations and Woodstock representative of their cohort. Now, as the Boomers retire they are a challenge to the already overburdened healthcare systems, financial institutions, and social resources (e.g., Lee & Skinner, 1999). Boomers will also be withdrawing their extensive accumulated skills and expertise from the workforce. On the one hand, more jobs will be available for younger cohorts; on the other hand, there will be a lot fewer employees available to mentor, train, and disseminate corporate culture to new employees (Rix, 2007).

The actual effect of Boomers on various institutions may be related to how they view their own aging and their perception of what it means to age. If Boomers perceive becoming older as inevitable decline, their behaviors will likely reflect this belief. An outcome of this may be decreased cognitive and physical capacity, which could lead to chronic disease such as diabetes or high blood pressure. For instance, as Boomers reach retirement age they may perceive themselves as being too old to learn, to try new activities or to pursue new goals. However, if Boomers perceive reaching retirement age as being a time of personal freedom and an opportunity to explore and pursue personal
interests, they may engage in activities that support cognitive and physical health. Healthy, active Boomers are less likely to be a burden on society and more likely to contribute to or enhance society with their accumulated skills and experience (e.g., Bass, Caro, & Chen, 1993).

Persons commonly internalize the attitudes of the society in which they live. Dominant societal attitudes are often internalized by an individual without cognitive awareness of the validity or origin, but become evident in the implicit attitudes a person holds (Eagly & Chaiken, 1993). Ageism, that is, a negative attitude towards someone based solely on their actual or perceived age, is a ubiquitous aspect of American society (Butler, 1975). Research has shown that attitudes towards one’s own aging, both explicit and implicit, can have a significant affect on a person’s health, behavior, psychological status, and overall quality of life (e.g., Levy, 2003; Levy, Slade, & Gill, 2006). Generally speaking, the process of aging tends to be viewed as a health problem that needs to be cured rather than as a normal and privileged aspect of human life that may also include health issues (e.g., Nussbaum, Pitts, Huber, Raup Krieger, & Ohs, 2005; Palmore, 2001).

Early research in gerontology seemed to support the notion of aging as a health problem (e.g., Rowe & Kahn, 1986; Whitbourne & Hulicka, 1990). Studies generally focused on convenience samples of older adults, such as studies with older adults in Veteran’s hospitals and in convalescent hospitals. Findings from such studies supported the notion of aging as a negative experience with aging being viewed as a process of inevitable cognitive and physical decline (e.g., Whitbourne & Hulicka, 1990).

It was not until 1984 that a “new gerontology” was developed with support from
the MacArthur Foundation, which focused on gathering information necessary to improve the physical and mental abilities of older adults (Rowe & Kahn, 1997). Results from this 10-year endeavor included recommendations for “successful aging” which focuses largely on notions of avoiding disease and decline in order to age successfully (Rowe & Kahn, 1997). Successful aging was posited to consist of three overlapping components: avoiding disease, engagement with life, and maintaining high cognitive and physical function (Rowe & Kahn, 1987). Aging successfully was framed as within the control of the older adult. This implied that to age unsuccessfully meant that the older adult was somehow failing to offset the inevitable effects of growing older. Although the process of aging was being conceptualized as malleable rather than inevitable, the emphasis of avoiding disease and decline suggests that disease and decline occur uniformly during aging and that action must be taken to avoid them thereby aging successfully.

Similarly, other research suggests that older adults who remain active can avoid disease and decline (e.g., Butler & Gleason, 1985). Specifically, the notion of productive aging suggests that older adults who stay active and remain autonomous and independent, age better with higher ratings of overall health and quality of life (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003). Productive aging is similar to Rowe and Kahn’s (1987) concept of active engagement; however, active engagement is only one of three necessary components in Rowe and Kahn’s model. Nevertheless, just like these authors’ approach, the productive aging framework also suggests that inevitable disease and decline is part of the natural process of aging.
In another research approach, perspective aging is construed as a social justice issue. Researchers argue that societal structures, such as government and health polices, influence the status of older adults more than the actual aging process (e.g., Estes, 1978; Estes, Gerard, Zones, & Swan, 1984). Further, researchers suggested that older adults should not be discounted simply because of their age or lack of ongoing contribution to society; rather, older adults earned the right to be inactive \emph{and} valued (e.g., Estes et al., 1984). Although the notion of being a producer in order to be worthy of receiving social support was subsequently challenged, the central notion of older adulthood being a time of infirmity was not. Rather, aging was defended as a period of the human life cycle that required no additional contribution to society. Although this line of inquiry attempts to legitimize aging as an honorable aspect of human life, it does not refute the notion of aging as being an inevitable time of disease and decline.

Yet another approach to aging focuses on conscious aging as a time of self-actualization and on-going growth in the face of loss (e.g., Schachter-Shalomi, Zalman, & Miller, 1995). Conscious aging comprises the transition from “age-ing to sage-ing” (i.e., becoming sage or wise) and notions of “spiritual eldering” (i.e., becoming more spiritually focused). For instance, aging is proposed to be a time of reflection, where life narratives are composed and self-reflection occurs. Conscious aging holds a more positive view of the aging process than many other theories on aging; yet, there continues to be a presumption that aging is a time of inevitable change and loss. The underlying premise is that individuals need to reframe aging so that the aging experience can be perceived as positive rather than the negative experience that it might otherwise be. In
sum, contemporary theories in gerontology continue to reflect and reinforce the view of aging as a deficit by proposing ways to circumvent or avoid its negative effects.

Because such a prominent proportion of American society is nearing retirement age, understanding the motivations of older adults to participate in successful, productive, and/or conscious aging activities or to do anything at all would be beneficial. However, the motivational aspect of older adults to age successfully or productively is not readily apparent. An underlying premise of contemporary theories of aging is that the self, the “experiencer” of aging, is actively interpreting and reacting to the experience of aging (e.g., Baltes & Baltes, 1990; Baltes & Carstensen, 1996). For instance, in research examining the self-perceptions of aging in the remaining participants from the longitudinal Berlin Aging study, researchers found that even when controlling for socio-economic status, age, gender, functional health, and dementia, participants with higher satisfaction with their own aging survived three years longer (Kotter-Gruhn, Kleinspehn-Ammerlahn, Gerstorf, & Smith, 2009). Findings also supported the need to conduct further research examining the factors that optimize maintenance of psychological vitality. Examining aging in a theoretical framework that does not assume inevitable disease and decline may provide information that redefines what it means to age.

The research presented in this dissertation uses a well-established model in the social psychological literature, the self-expansion model (SEM; Aron & Aron, 1986). The self-expansion model of motivation and cognition (SEM) is a conceptual framework for understanding human motivational processes (e.g., Aron & Aron, 1986; Aron, Aron, & Allen, 1998; Aron, Aron, & Norman, 2001). It has been previously applied to human
relationships, but, even though its scope allows application in other domains, it is new to
the literature on gerontology. Perhaps because this model was originally developed in a
different domain, has an emphasis on self motivation, and does not implicate age as a
moderating factor, it is arguably devoid of any ageism. In this dissertation, the SEM will
be employed to understand older adults’ motivations, experiences, and behavior in a
central domain in which older adults tend to be engaged: volunteering. In fact, according
to the Bureau of Labor Statistics (2010), approximately 52% of adults aged 55 and over
are engaged in volunteering activities.

The basic premise of the SEM is that the metaphorical expansion of the self (i.e.,
the cognitive structure of the self) is a core human motivational process (Aron et al.,
1998). There are two central ideas of SEM: (1) People seek to increase their potential
efficacy by increasing personal resources such as knowledge, social status, community,
physical strength, health, possessions, and wealth, and (2) one way people seek to expand
is through close relationships in which they cognitively include others in the self thereby
possessing the “other’s” perspectives, identities, and resources (Aron & Aron, 2006).

Self-expansion is said to occur in a two-phase process: First, an expanding
experience occurs, such as when an individual learns a new language or begins a new
friendship (e.g., increase communication abilities; increase social resources). Second, the
experience is integrated into the self (e.g., incorporation of the experience into the self;
making sense of the expanding experience). SEM also posits that there are individual and

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2 At the Society for Personality and Social Psychology conference (2009) I asked Dr. Arthur Aron if he
thought that older adults would still experience self-expansion. Dr. Aron responded, “Of course! Why
wouldn’t they?”
cultural differences in determining what is considered an expanding experience. An individual can expand in one or more areas simultaneously or sequentially, and failure or punishment in attempts to self-expand in an area may preclude trying to self-expand (e.g., Aron & Aron, 1997).

Another supposition of SEM maintains that attachment styles are a reflection of early attempts of self-expansion, and therefore may influence an individual’s likelihood and mode of self-expansion (Aron & Aron, 2006; Aron et al., 2001). Attachment styles refer to the pattern of attachment first experienced between an infant and the infant’s primary caregiver (e.g., Hazan & Shaver, 1987; Bartholomew & Horowitz, 1991). The experience when growing up sets the stage for an individual’s future relationships, which qualify if and how people relate to others. With self-expansion referring explicitly to how individuals create and maintain connection between their own selves and others, it must be assumed the habitual patterns of relating will also be evident in the ways individuals self-expand. For instance, if an individual is avoidant of relationships the individual may be less likely to self-expand by being in a committed intimate relationship (e.g., Aron & Aron, 2006).

Clearly, application of the SEM in research examining a wide variety of psychological and social concerns, especially in an older population is reasonable. SEM provides a conceptual framework through which motivational aspects of behavior may be further explored. For instance, as the self grows into older age SEM may assist in explaining older adults’ choice of activities, quality of life, overall well being, and relationships. SEM may bring new insights into currently existing theories of aging while
also complimenting many existing notions of aging.

Theoretically, self-expansion should occur throughout the lifespan; however, most research in the field of self-expansion has focused on young persons, typically college students. Also, SEM research tends to focus in the area of close personal relationships with inclusion-of-others being the main method of self-expansion explored (Aron et al., 1998). According to the SEM model, self-expansion can occur in four overarching domains: physical influence (e.g., possessions), cognitive complexity (e.g., knowledge), social and bodily identity (e.g., inclusion of others), and awareness of position in the universe (e.g., meaning of life). Presumably, older adults are still self-expanding and may be expanding in a variety of areas.

A more robust application of the model to include older adults and other purported areas in which self-expansion can occur can broaden understanding of the aging process and facilitate integration of contemporary gerontological theories. For instance, successful aging or productive aging may be the result of this influence of the self’s motivation to expand. Further, older adults may be seeking opportunities to self-expand but their efforts may be thwarted by societal ageism or other barriers. Research using the SEM has not clearly established that self-expansion occurs in older adults and in areas other than close personal relationships. For instance, encouraging civic engagement in older adults, e.g. through volunteering, has been suggested as one way to offset the “brain drain”, that is, the loss of accumulated skills and expertise of retirees leaving the labor market (e.g., AARP, 2008).

Volunteers currently are involved in a variety of tasks such as reading to
elementary school children, providing companionship to homebound frail older adults, and being docents at museums (AARP, 2008). The humanistic benefits of volunteering to society can also be viewed as financially beneficial, offsetting significant costs for labor. For instance, the Retired and Senior Volunteer Program of Washoe County, Nevada provided over 125,000 volunteer hours with each hour valued at $19.75 by the US Department of Labor in 2007 (USDL, 2010).

Snyder, Clary, and Stukas (2000) theorized that individuals participate in volunteering activities as a way to create desirable situations in which an individual can explore various roles while utilizing past life experiences. Volunteering is believed to be motivated by a person’s values, desire to increase understanding, desire for personnel enhancement, desire to explore career goals, or desire to protect the self by reducing negative feelings (Clary & Snyder, 1999). Expression of important values such as being charitable or helping those in need, seeking to learn or gain knowledge, seeking to grow and develop psychologically, gaining career-related experience, strengthen social relationships or “networks”, and reducing personal guilt are believed to be served by participation in volunteering activities.

The body of literature examining how to engage older adults in volunteering activities continues to grow. Some examples of the growing literature include: exploration of recruitment and retention of older volunteers (e.g., Grano, Lucidi, Zelli, & Violani, 2008); the designing of volunteers’ tasks to increase volunteer engagement (Millette & Gagné, 2008); role identity, organizational experiences, and the dispositional aspects of volunteering (e.g., Grube & Piliavin, 2000; Penner, 2002). Yet, a clear
understanding of why anyone would choose to volunteer and what anyone would get from the volunteering experience is not clearly identified. Conceivably, volunteering may be an area that can facilitate ongoing self-expansion in older adults.

In addition to applying the SEM to a group of older adults who volunteer, a selection of known and hypothesized moderators of self-expansion will be examined in this dissertation: role-person merger (role identity), commitment to volunteering (commitment), sense of mastery (mastery), attitudes towards one’s own aging, overall sense of morale (morale), attachment style (secure, avoidant, anxious), and importance of religion. SEM maintains that self-expansion can be influenced by repeated failure at attempts to self-expand or from punishment for trying to self-expand. Research examining older adults’ attitudes toward one’s aging has shown that attitudes can be very influential in older adult’s behavior (e.g., lifestyle choices, physical activity levels) which in turn influences the actual aging process (e.g., Levy, 2003; Kotter-Gruhn et al., 2007). Research has also demonstrated that attachment style influences volunteering behavior (e.g., Erez, Mikulincer, van IJzendoorn, & Kroonenberg, 2008; Gillath, Shaver, Mikulincer, Nitzberg, Erez & van IJzendoorn, 2005). For instance, egotistic reasons for volunteering were more common for those with attachment anxiety and those with attachment avoidance were less likely overall to participate in volunteering activities (Erez et al., 2008). Conceivably, ageism should mediate older adults’ self-expansion levels between Time 1 and Time 2 and their self-attachment style should moderate self-expansion levels between Time 1 and Time 2. SEM also suggests that attachment style may be a moderating variable influencing likelihood and area of expansion (e.g., Aron et
It is also possible that the choice of domain in which self-expansion is attempted may be influenced by the individual’s future time perspective. Lang and Carstensen (1996) maintain that an individual’s perception of the future influences present-day behavior. When the future is perceived as infinite or open-ended, behaviors supporting novelty seeking and attaining knowledge are more likely to occur. In contrast, when the future is perceived to be non-existent or very constraint, individuals are more likely to seek emotionally rewarding experiences, that is, individuals would attempt to enjoy the current moment. This theory presupposes that individuals would enjoy the familiarity of emotionally rewarding relationships more so than they would enjoy learning or novel experience if they were not future oriented. For instance, individuals who do not believe they have a future would be more likely to be spending time with close loved ones in familiar surroundings; whereas individuals who see an open-ended future may spend their time meeting new people in novel situations. Therefore, although ageism may influence self-expansion, future time perspective may influence which domain of self-expansion would be chosen.

Historically, religion has been found to contribute to participation in volunteer activities (e.g., Wilson & Janoski, 1995; Ruiter & De Graaf, 2006). Ruiter and De Graaf (2006) examined religiosity, national context and volunteering in 53 countries and found that religious people are more likely to volunteer. Interestingly, results suggested that the overall sense of the importance of religion within the society influenced volunteering activity more than church attendance, suggesting that one’s readiness to help others is
more rooted in personal conviction than being of a community or organization.

Presumably, older adults who view religion as very important would be more likely to volunteer because this behavior is reflective of their faith or religious belief.

Considering the need to better understand aging, the societal influence of Boomers entering retirement age, and the economic consequences to both retirees and social support systems, further exploration of self-expansion in older adults is warranted. Findings from such exploration may give researchers insights as to the motivation underlying older adults’ activities thereby providing information that can be used to enhance programs focused on the well-being of older adults.

**Summary**

As the American population continues to advance in age and enter into retirement, attitudes towards aging remain negative (e.g., U.S. Department of Labor, 2010; Palmore, 2005). Along with an aging society there are increased costs to society (e.g., brain drain; increased health care costs). Contemporary approaches to the study of aging continue to support the notion that actions must be taken in order to avoid inevitable disease and decline (e.g., Rowe & Kahn, 1987; Morrow-Howell et al., 2003). The self-expansion model (Aron & Aron, 1986) provides a theoretical framework which understands the aging process from an innovative, aging neutral, position.

The stage has been set in Chapter 1: an unprecedented portion of the population is aging and is soon to become part of a demographic that is neither popular nor well understood. Chapter 2 discusses the development, usage, and potential of Aron and Aron’s (1986) self-expansion model (SEM) to inform gerontological thinking. In Chapter
3, perspectives of aging and contemporary theoretical models are explored. Chapter 4
delves into the current state of volunteering in America as it relates to adults aged 50 and
over. In Chapter 5, a pilot study is described in which self-expansion was successfully
measured in a population of adults aged 50 to 96 years.

Chapter 6 opens, with a more focused, longitudinal study, which built on the pilot
study described in chapter 5. This research examined self-expansion in older adults who
participated in volunteering activities over a period of 3-months and the role of attitudes
toward one’s own aging; further investigation of the effects of attachment style,
importance of religion and other variables of potential correlation to self-expansion were
examined.

Chapter 7 describes the methods used to conduct the research described herein.
Recruitment strategies, measures included in the survey and their alpha coefficients are
described. Number of participants for each phase of the study is given. Approaches to
data analysis and rational for analyses are described.

Chapter 8 provides the research findings for all hypotheses and subsequent
research questions described in chapter 6. Details of analyses for each area of inquiry are
described with explanations of analyses findings. Discussion and implications of research
findings are provided in Chapter 9. Further, lessons learned, limitations, and future
research directions are discussed.
Chapter 2 – The Self-Expansion Model of Motivation and Cognition

The self, conscious and reflexive, consists of both a knowing that the self is the perceiver, “I am,” and the self is the perceived, “me” (e.g., James, 1984). Aron and Aron’s (1986) self-expansion model (SEM) starts with the premise that the self is a motivational force seeking experiences to enrich or add to the sense of “me” of who I am. The self seeks the ability to achieve whatever goal that may arise, that is, to have a strong sense of potential self-efficacy. The self also seeks to experience the enjoyment of becoming “more” by experiencing the feeling of the self expanding. Novelty and arousal are key components of self-expanding experiences. Self-expansion can be viewed as an expansion of the self via enriching “me” experiences (Aron, Paris, & Aron, 1995). As the self successfully expands its sense of “me” by incorporating expanding experiences, the self becomes more; the self becomes enriched. This entails that the self is rarely a completed concept; rather the self is an active agent involved in the ongoing state of becoming. The self-expansion model of motivation and cognition (SEM) first emerged in the literature in 1986 as a proposition that all humans have a core motivation to expand the self (Aron & Aron, 1986). The motivation to self-expand is likened to notions of exploration, competence, and efficacy (e.g., Aron & Aron, 1996). According to Aron et al. (2001) the SEM’s primary global principle is “…that people seek to expand the self in the sense that they seek to enhance their potential efficacy by increasing the physical and social resources, perspectives, and identities that facilitate achievement of any goal that might arise” (p. 478). Expansion of the self is seen as a motivational process in which the ultimate goal is to actualize the full potential of the self with the inclusion of the “other”
into the self as a common strategy for achieving this goal (Aron et al., 2001). By “other” the authors refer to someone “other” than the self. The self plays a central role as the motivator engaged in seeking opportunities to enrich the “me” aspects of self (e.g., the “seen”).

**Theoretical Roots of the SEM**

Notions of the model of self-expansion emerged from early work in efficacy models of motivation (e.g., Deci, 1975; Maslow, 1963; White, 1959). In essence, the theoretical roots of the SEM were derived from the classical argument of White (1959) that posited that there is a drive or need for individuals to experience efficacy or competence (i.e., an effectance motivation) and that these needs reflect biological drives. Efficacy was conceived of as similar to drives such as hunger and thirst. White argued that organisms have a need to feel competent, to master, manipulate, and control critical facets of the environment (1959).

White’s work evolved from earlier psychological notions of understanding behavior as “instincts” (e.g., Freud, 1959) and homeostasis-oriented “drives” (e.g., Hull, 1943). White endeavored to understand why people, who were in a state of homeostasis or equilibrium, still seek out new experiences or increase their arousal beyond the level necessary to maintain homeostasis (White, 1959). White theorized that people needed to feel that they could successfully manipulate the environment, that they could have control of their environment. Hence, people would express curiosity, play, and exploration as ways to gain knowledge, and, with that knowledge develop a sense of efficacy over an environment.
According to White (1959), the motivation to feel efficacious was purported to occur only after the more basic needs such as hunger were met. White argued that satisfying more basics needs would occur before the need to feel efficacious is in line with Maslow’s (1967) hierarchy of needs. Maslow theorized that basic needs such as hunger, thirst, and shelter would be met before self-actualization could occur. Although the theories of White and Maslow are in harmony on this point, Aron and Aron (1986) argued that even when hunger exists, individuals will seek novelty and forgo eating to satisfy a curiosity. Therefore, the need to self-expand is purported to be as essential to human existence as the need to satiate hunger or thirst. Theoretically, self-expansion would be in the service of meeting other physical needs. After all, self-expanding experiences increase potential self-efficacy which would, in turn, provide a greater likelihood of having the necessary resources to meet other needs (e.g., resources to purchase food; knowledge of how to hunt).

There is another key difference between “effectance motivation” as theorized by White (1959) and “self-expansion motivation.” White’s emphasis is on the satisfaction experienced when the self acts effectively. This contrasts with Aron and Aron’s (1986) emphasis on the satisfaction experienced by the self from knowing that one has the potential to act effectively. Potential self-efficacy focuses on non-goal specific competence such as feeling competent that, regardless of the situation, one can maintain competence or a sense of control over their environment. White’s conceptualization of self-efficacy tends to be goal or domain specific, for example, self-efficacy as demonstrated ability to meet current financial demands. Whereas Aron and Aron
conceptualize feelings of self-efficacy in a broader sense than White with the potential to have control over a situation rather than the actual sense of control. Theoretically, enhancing the potential for self-efficacy would be accomplished by incorporating those perspectives, knowledge, identities, or physical and social resources into the self that can facilitate the achievement of any goal. Further, it is possible that seeking out new experiences and increasing complexity may be pursued simply for its own sake. Goals are believed to be of value to the extent that they can facilitate self-expansion (Aron & Aron, 1986).

The notion of self-efficacy continues to be refined by theorists such as Bandura and Bussey (1995) and Pajares (2002). Self-efficacy is also a key element of social cognitive theory, which views the self from an agentic perspective (e.g., Bandura, 2001). Since the inception of the SEM, Aron, Aron and others (e.g., Aron et al., 2001) have continued to emphasize the importance of potential self-efficacy. Theoretical models of efficacy and motivation such as Gecas (1989), Deci and Ryan (1987), and Higgins and Sorrentino (1990) have prompted a refinement of SEM. For instance, the motivation to strive for a sense of self-efficacy is echoed by Gecas and Burke (1995), who states, “People typically seek to enhance their experience of self as efficacious” (p. 47).

The ability to see oneself as being able to affect (i.e., have potential to control aspects of) one’s environment is a key aspect of self-efficacy. In this sense, self-efficacy can be construed as a direct representation of the self as a social force (Gecas & Burke, 1995). This view is very similar to Aron et al.’s (2001) view of self-expansion and with the literature on social cognition theory. More specifically, the self is believed to be an
agentic causal force that is actively “becoming,” that is continually integrating experiences and redefining its own definition.

Researchers have also argued that the assumption of an exploration motive as suggested in the secure-base scenario as described by Bowlby (1969) is similar, if not the same, as self-expansion motivation (Aron & Aron, 2006). The secure-base scenario refers to one’s relationship with their caregiver or significant other, that is, feeling secure and willing to explore with the knowledge that if help were needed the caregiver or significant other would be there to provide support. This assumption has been explored in correlational studies in which adult attachment styles (e.g., Ainsworth, 1969, 1985; Ainsworth & Bowlby, 1985, 1991) and self-expansion in close personal relations were examined (e.g., Aron et al., 1998). Also, Broemer and Blümle (2003) built on assumptions of self-expansion in research that manipulated self models (positive and negative) while looking at the influence of attachment styles on self-evaluation (e.g., Ainsworth, 1989). Results of this research suggest indicated that participants’ who had secure attachment style were essential unaffected by negative self information. Based on these findings, Broemer and Blümle argue that attachment styles influence different responses to salient information about the self in close relationships (p. 456).

Central Propositions and Predictions of SEM

The SEM proposes that people seek to expand the “self” as an underlying motivational process. In the effort to expand the self, people seek to increase their potential self-efficacy by increasing personal resources. There are four theoretically identified general domains of self-expansion, and within each domain there are various
potential resources: (1) physical influence (resources may include possessions, territoriality); (2) cognitive complexity (resources may include, knowledge, insight); (3) social and bodily identity (resources may include inclusion-of-others-in-the-self); and (4) awareness of position in the universe (resources may include understanding the meaning of life, metaphysics). Preferences of domains vary and can change within a single day or over a life time.

Self-expansion is conceptualized as a two phase cyclical process, that is, a two distinct steps: the experience and the integration of the expanding experience (Aron et al., 1998). The process of self-expansion involves the self experiencing something novel or arousing (exciting) and then cognitively integrating the experience into the “me” aspect of the self. Importantly, having a new experience is not enough; the experience must also be incorporated into the self. This implies that the process of self-expansion must include a sentient and a cognitive experience. The continual cycling of expansive experiences and integration of those experiences results in gaining more knowledge, more complexity, more resources, and increasing feelings of competence thereby allowing for the self to become more cognitively complex (e.g., Aron & Aron, 1997). This process is similar to Piaget’s (1952, 1963) notions of growth of intelligence in which there is accommodation to a new experience alternating with assimilation of the new experience into existing schemas.

The experience of self-expansion is theorized to be an affectively positive experience (e.g., exhilarating, exciting) as suggested by studies examining attraction, novelty, and arousal in close personal relationships (e.g., Aron & Aron, 1996; Dutton &
Aron, 1974; Reissman, Aron & Bergen, 1993). However, the activity that an individual engages in may not necessarily be affectively positive rather it is the feeling of self-expansion occurring that is affectively positive. For instance, being fearful crossing a bridge – that is not positive, however, once on the other side (and no longer afraid for your life) having had the (exciting possibly near death) experience and integrating the experience would result in self-expansion. Also, perceptions of what is novel or arousing influence whether the activities actually provide expansion (e.g., Aron, 2003; Aron et al., 1998). That is, an individual may experience an activity that is novel yet not arousing or exciting based on their perception of the experience. For instance, going to a zoo for the first time may be exciting for one person but not another based, at least on individual perceptions of what is novel and exciting.

Self-expansion can occur in more than one domain, simultaneously or sequentially. When, and in which domain self-expansion occurs depends on various factors such as individual preferences for various domains of expansion and access to those domains, culture, preferred rate of expansion, and past attempts at self-expansion (e.g., Aron et al., 1998). For instance, changing life circumstances may preclude an individual from being able to participate in expanding experiences such as moving to a small town and not having access to a museum or to art centers. Also, if an individual continually meets with punishment or failure in an attempt to expand the self, the individual may eventually stop trying to expand in that domain. For example, if an individual is continually rejected by potential romantic partners, the individual may stop seeking a romantic relationship and may seek self-expansion via career goals. The key for
any expanding experience is that there is an element of novelty or arousal (e.g., Aron et al., 2001).

Individual rates of self-expansion are related to individual differences in perception of stress and ability to incorporate new experiences into the self. A person experiences (sentiency) an expanding event and subsequently integrates (cognitively) that experience into the self. The more a person experiences expansion the more likely expansion will continue; conversely, thwarted efforts or lack of opportunities to expand can lead to de-expansion or de-integration and lessen the likelihood of future expansion (e.g., Aron & Aron, 1997; Aron et al., 2001). Given that self-expansion is conceptualized as a basic human motivation, self-expansion would likely be a process that would normally be incessant and occur at varying individual degrees. Specifically, the process of self-expansion, in order to be beneficial, cannot occur too quickly, but must occur at a pace that allows the individual to process the implications of current experiences to the self. Presumably, if the self cannot process and integrate experiences the result can be stress, a period of non-expansion, or a change of domain in which self-expansion may be achieved.

A common way people seek to expand is through close relationships in which they cognitively include others in the self thereby possessing the “others” perspectives, identities, and resources (Aron, 2003). The inclusion-of-others-in-the-self (IOS) is conceptualized as an interlocking cognitive process where self construals include aspects of an “other.” Entering and maintaining close, loving relationships occurs as a result of the desire to enjoy the expansion experience of cognitively incorporating aspects of the
other into the self. The use of pictorial representations of self and other as two circles varying in degree of overlaps, from no overlap to almost full overlap, has aided in the conceptualization and measurement of IOS (Aron, Aron, & Smollan, 1992). Arguably, the use of pictorial representations assists in identifying the “expandedness” of the individual; that is, the outcome of self-expansion as represented as the extent to which an individual perceives their close other as being part of the self. Also, the IOS scale is well established in the literature as a measurement of the outcome of the self-expansion process.

Refinement of the SEM has resulted in SEM being used as a framework with strong metaphorical images such as the self expanding and including an “other” into the self (e.g., Aron, & Aron, 1997; Aron et al., 2001). Further, use of the SEM has grown from “inclusion-of-other(s)-into-the-self” to “inclusion-of-the-in-group-into-the-self” (e.g., Mashek, Cannaday & Tangney, 2007; Aron, McLaughlin-Volpe, Mashek, Lewandowski, Wright, & Aron, 2004). In these studies the notion of community connectedness and inclusion of group into the self are key variables of interest rather than romantic dyads.

**Research on Self-Expansion**

Conceptually, self-expansion is both a process and an outcome: the sentient and subsequent cognitive experience of self-experience as process and the expanded self or “expandedness” of the self as an outcome. The conceptual duality of self-expansion can be a challenging aspect when assessing self-expansion (e.g., Leary, 2007). Whether it is the process of self-expansion, the outcome of self-expansion (“expandedness”) or both of
these concepts that is of interest must be clear. The psychometrically sound IOS (e.g., 1986; 1992) measure, although used in many research studies on the process of self-expansion, is a measure of only the outcome of self-expansion (i.e., perceptions of how much the other is part of the self). The measurement of the process of self-expansion has been accomplished by use of the relatively new Self-Expansion Questionnaire (SEQ), Lewandowski & Aron, 2002). Further the SEQ focuses on how much an activity or relationship is being seen by the perceiver as enriching the perceiver’s self. Another method of measurement include quantity of self-report statements (“Today I am ….”) both before and after falling in love (e.g., Aron et al., 1995).

Thus far, empirical research using the SEM has been mostly conducted in the field of close personal relationships and intimacy (e.g., Aron, & Aron, 1996, 1997; Aron, Aron, Tudor, & Nelson, 1991; Aron et al., 1992). For instance, Aron, Aron, and Paris (1995) explored the effect of falling in love on self-concept change. Two longitudinal studies were conducted with the intent to examine the SEM specifically. In both studies undergraduate students were invited to participate and data was collected five times over ten weeks. Participants were asked whether they had fallen in love and were either asked to make a list of describing their self or to answer standardized measures of self-efficacy or self-esteem. Findings from this study indicated that self-concept domains changed and increased for participants after they fell in love (Aron et al., 1995). Another example of such research is the Aron, Melinat, Aron, Vallone, and Bator’s (1997) study in which three studies were conducted in a laboratory setting in which feelings of interpersonal closeness were experimentally manipulated. This study helped to establish procedures
that could be used to further experimental manipulations to induce closeness and control for relationship status. However, the SEM has recently been used in the field of sociology in an ethnographic study as a way to explain the difficulties of an outsider trying to do research within a stigmatized group (Crowly, 2007). Further, research using the SEM has predominately included participants that were young persons or students. Nonetheless, the SEM maintains that self-expansion is an underlying motivation for all humans (e.g., Aron & Aron, 1986, 1995) implying that self-expansion would occur across the lifespan.

The existing research on the self-expansion model has concentrated on the process of self-expansion; that is, self-expansion as a motivator has been researched more than the outcome of self-expansion (Aron & Aron, 2006). Ties between the motivation to self-expand and the motivation to explore as described in attachment theory (Ainsworth, 1969, 1985; Ainsworth & Bowlby, 1985, 1991) have also been explored (e.g., Aron & Aron, 1997; Aron et al., 1998). Although the motivational aspects of self-expansion have been a focus of researchers, psychometrically sound measurement of the process of self-expansion appears to be less developed than measurement of the outcome of self-expansion. Studies of the process of self-expansion such as those mentioned previously in this section, tended to rely on various strategies to measure self-expansion such as trait recall and spontaneous self-descriptions. Whereas an outcome of self-expansion (including concepts of a intimate “other” into the self) rely on the on the Inclusion-of-Other-in-the-Self scale (IOS, 1999), which is a one-item pictorial measurement with well established reliability and validity (e.g., Aron, Aron, & Smollan, 1992). However, the process of self-expansion utilizes a more recently (2002) established 14-item self-report
questionnaire, a scale which is not yet well established in the literature but has demonstrated solid psychometric properties (e.g., Self-Expansion Scale; Lewandowski & Aron, 2002).

**The Process of Self-expansion**

What makes an experience expanding is that it is perceived by the individual to be novel or arousing (Aron & Aron, 1986). Novel experiences and arousing experiences are generally considered exciting; therefore, experiencing expansion is generally associated with positive effect. As discussed earlier, the process of self-expansion has two phases, is cyclical, and can occur in one or more domain concurrently or separately (e.g., Aron et al., 1998). Generally, individuals are not aware of their underlying motivation to self-expand when they engage in self-expanding activities and self-expansion can occur even when an experience may be initially thought of as negative. For example, crossing a bridge made out of rope may be considered undesirable (i.e., negative); however, when crossing the bridge the individual may have felt excitement from the experience resulting in a sense of competency.

Research examining the process of self-expansion has focused on couples’ experiences that are considered novel or arousing (i.e., exciting). For instance, research conducted by Reissman et al. (1993) explored the relationship between couples’ time spent together and the degree to which shared activities were perceived to be exciting. Participants were randomly assigned to one of three different types of activity conditions: exciting, pleasant, or no special activity. Participants were then asked to spend 1.5 hours a week for 10 weeks in the type of activity and keep a record of their activity in a journal.
Findings from this study suggested that time spent together in exciting activities was related to greater relationship satisfaction than simply spending time together or spending time together doing pleasant activities. This study is one of the first to provide support of the role of excitement in relationship satisfaction as well as support the role of excitement in relationships (Reissman et al., 1993). These findings provide support for the basic premise of the SEM. The reader may recall that the SEM asserts that a primary motivation of people is to expand the self so as to increase their potential self-efficacy. Therefore, when couples participated together in novel (exciting) activities, the joint activities served as new resources or experiences that were associated with the partner supporting self-expansion (Reissman et al., 1993). Arguably, couples who shared these experiences felt some degree of increased self-efficacy for having participated.

In another group of similar studies, researchers examined the influence of shared participation in arousing and novel activities versus boring or mundane activities on experienced relationship quality. Aron, Norman, Aron, McKenna and Heyman (2000) conducted five studies using various methods; two were questionnaire studies and three were experiments. Results from all five studies supported the notion that novel activities and arousing activities are related to higher levels of relationship quality. Relationship quality is believed to be highly correlated to the ability of each person in the relationship to self-expand via the experience of the activities and acquiring new resources such as information and knowledge (Aron et al., 2000).

The above studies demonstrate the effect of couples participating in arousing (exciting) and novel experiences and the subsequent positive influence these experiences
had on their relationships (e.g., Reissman et al., 1993). These studies also serve as examples of the process of SEM. When couples participated in exciting and novel activities, the experience of participation served as new resources that became associated with their relationship providing self-expansion.

**Inclusion-of-Others-in-the-Self**

The classic suspension bridge study (Dutton & Aron, 1974), served as a basis for early exploration of falling in love and subsequently self-expansion (Aron & Aron, 1986). The bridge study consisted of two scenarios: one in which a fear-arousing bridge was walked across by a male participant and the other in which a non-fear arousing bridge was crossed. Once across the bridge, the male participant was subsequently contacted by an attractive female confederate. Feelings of arousal were likely to be attributed to attraction and potentially falling in love. Early development of the notion of self-expansion, which the role of arousal and novelty in expansions is paramount, focused on the inclusion of other to explore self-expansion. Further, notions of falling in love (e.g., Aron et al., 1989), understanding attraction and satisfaction aspects of love (Aron & Aron, 1986), and the effects of falling in love on the self-concept (Aron et al., 1995) were explored in greater depth. Findings from these explorations refined conceptual aspects of the self-expansion model and informed notions of how the self becomes more expanded. Specifically, including aspects of “other” into the self supports a more efficacious and complex notion of self. Therefore, a reliable measure of inclusion-of-other(s)-in-the-self was necessary.

The “inclusion-of-other-in-self” (IOS) single-item pictorial measure was
developed to measure a person’s sense of closeness to another. The IOS is an adapted version of earlier measures of close relationships such as in Lewin’s (1948) Venn diagrams which concerned the differing degree of “life space” overlap. A simplified version of the Venn diagram was developed by Levinger and Snoek (1972) to express close relationships as including other in the self – similar to a fusion of self and other. However, Aron and Aron’s (1986) notion of including the other in the self was broader than these conceptions of including the other in the self. Aron and Aron’s notion concerned the inclusion of the other’s characteristics, perspectives, and resources in the self (Aron, Aron, Tudor, & Nelson, 1991).

Research examining the psychometric properties of the IOS scale was conducted (Aron et al., 1992). The IOS test-retest reliability and convergent validity was established by comparing the IOS to other scales thought to be similar conceptually. For instance comparisons were made between scales such as the Relationship Closeness Inventory (Berscheid, Snyder, & Omoto, 1989) and the Intimacy Scale (Sternberg, 1988). Closeness is conceptualized as notions of sharing resources, of shared identities, and of the extent to which someone else is perceived as being a part of the self (e.g., Aron et al., 1992). The scale consists of seven pairs of interlocking circles that vary in their degree of overlap, with greater overlap symbolizing greater perceived closeness in relationships. This measure allowed for an exploration of the extent to which others were included in the self-concept, that is perceived closeness as inclusion-of-other-in-self as conceptualized by Aron and Aron in 1986 (e.g., Aron et al., 1991; Aron et al., 1992).

Research examining the inclusion-of-other(s)-in-the-self, has predominately
explored intimate relationships of younger adults. However, intimate relationships are only one possible outcome of self-expansion (e.g., Lewandowski, Aron, Bassis, & Kunak, 2006). Presumably, self-expansion could also occur in the domains of cognitive complexity, social and physical influence, and awareness of position of self in the universe. Further, since self-expansion is believed to occur in all humans, self-expansion should be occurring throughout the lifespan; yet, research regarding self-expansion in older adults, the fastest growing portion of American society, is lacking in the literature.

Researchers such as Aron et al. (1995) incorporated the usage of a longitudinal research design to observe the process of self-expansion over time. Aron, Paris, and Aron (1995, Study 1) examined self-expansion in new relationships by testing participants over a 10-week period: data were collected once every two and a half weeks. Falling in love was operationally defined as “the onset of a strong desire for a closer, romantic relationship with a particular partner” (Aron et al., 1995, p. 1102). Participants were asked if they had fallen in love between data collection periods. Participants were also asked, “Who are you today?” Participants were given three minutes to write as many words or phrases as possible describing themselves. Content analysis of participant responses indicated that a significant increase in the amount of self-content domains occurred in participants who had fallen in love. In Aron et al.’s (1995) Study 2, which also was a longitudinal study over 10 weeks with undergraduate students, self-efficacy and self-esteem were also measured every two weeks. As predicted by the researchers, a significant increase in the self-efficacy and self-esteem was found in participants who had fallen in love.
Aron et al. (1995) provided empirical support for the notion that the content of the self-concept changes when falling in love. Further, the change in self-concept can be metaphorically expressed as an expansion of the self that includes increases in self-efficacy and self-esteem (i.e., evidence of self-expansion via measuring the outcome of self-expansion). These findings influenced the development of the self-expansion model. The model originally emphasized self-expansion and love with close relationships being more cognitively oriented to the self-concept (e.g., Aron et al., 1995). However, other aspects of the model were being explored such as motivations in other theoretically identified domains in which the self was engaged in spontaneous self-concept expansion as well as engagement in arousing or novel activities.

Another example of an early study using the IOS measure is Aron and Fraley’s (1999) study in which the nature of (cognitive) closeness was examined as the basic element of interpersonal closeness. This study incorporated the IOS, the frequency, diversity, and strength subscales of the Relationship Closeness Inventory (Berscheid, Snyder, & Omoto, 1989), the Subjective Closeness Index (SCI; Berscheid et al., 1989) as well as measures of other aspects of relationship experience. Participants were asked to rate the similarity between themselves and their romantic partner on 90 trait adjectives. Approximately 75 minutes later participants were asked to identify whether traits presented on a computer screen represented “me” or “not me.” Participants’ reaction time varied based on levels of subjectively felt closeness. Specifically, there was a significant mean difference in reaction time for when participants identified a trait that was different for self and their partner as compared to a trait that was the same for self and partner, \( p < \)
Findings suggest that perceptions of closeness are a continuous variable rather than a dichotomous variable with degree of closeness dependent on the dynamics of the relationship. The IOS was shown to be an effective measure of feelings of closeness.

Seeking close personal relationships continued to be explored as a common way in which the self could expand. Notions of including “other” in the self was examined across various methods of inclusion such as including a close other’s resources in the self (e.g., Aron, Aron, Tudor, & Nelson, 1991); a close other’s perspectives in the self (e.g., Aron & Fraley, 1999); and a close other’s identities in the self (e.g., Aron et al., 1991).

The literature on intimate relationships is rich with studies using the SEM; however, other areas in which self-expansion is purported to occur have yet to be explored. Other areas of self-expansion such as physical influence (e.g., power relationships, possessions), cognitive complexity (e.g., knowledge, insight), and awareness of position in the universe (e.g., metaphysics, spirituality) have not been notably explored. Although these areas are repeatedly mentioned in the literature (e.g., Aron et al., 1998; Aron et al., 2001), exploration of the self-expansion model has remained primarily focused on aspects of the inclusion-of-other(s) cognitively in the self concept.

**SEM and other Contemporary Motivational Perspectives**

As discussed above, the SEM is rooted in early efficacy models of motivation (e.g., White, 1959). It shares this heritage with other contemporary motivational models such as self-efficacy motivation (Bandura, 1977, 2001), intrinsic motivation (Deci & Ryan, 1987), and hierarchy of needs (Maslow, 1967), thus requiring a discussion of what
distinguishes SEM from these competing theoretical frameworks.

**Self-efficacy Theory (Bandura, 1977, 2001)**

Self-efficacy centered theories are grounded in the literature of social cognition which assumes that people are agentic and actively shape their environments (Bandura, 2001). Social cognition attempts to understand how the individual, in a given situation, makes sense of information from both the individual (intrapersonal) and from others (interpersonal). The self is seen not as an outcome of an input, as a biological computer, nor as a linear being; the self is conscious, reflective, deliberate, and an active agent in its own creation. These notions are analogous with the underlying premise of SEM; the self is a force that actively seeks (e.g., situations and experiences to expand) and is influenced by situations (e.g., opportunities to expand; punishment or stigma when attempting to expand).

However, a key area in which these two models diverge is in the area of goal setting. SEM maintains that what makes any goal of importance is in its ability to provide self-expansion. By contrast, self-efficacy theory argues that goals are developed from the individual’s perceived likelihood that the goal can be achieved (e.g., Aron & Aron, 1986; Bandura, 1977). In this sense, Bandura views self-efficacy as a mediator of the motivational process, whereas Aron views self-efficacy as its goal (Aron et al., 2001). Bandura views self-efficacy from an “expectancy” perspective: the individual weighs the value of the goal and the likelihood that the individual can achieve the goal. Aron purports that an outcome of self-expansion is potential self-efficacy. That is self-expansion provides things such as resources, knowledge which can aide in the
accomplishment of any goal rather than one specific goal (e.g., Aron et al., 2004). Aron argues that the motivation to self-expand is a core human motivation whereas Bandura’s implies that self-efficacy is means to select specific goals in the fulfillment of core motivations. In short, both theories converge in the use of the concept of self-efficacy, yet the role attributed to this construct within the context of the respective theories varies dramatically.

**Self-determination Theory**

Self-determination theory (SDT: Ryan et. al., 2000; 2008) assumes that people have innate psychological needs for competence, autonomy, and relatedness along with inherent tendencies to grow. The self is conceptualized as an agentic entity that directs behavior. An individual’s behavior is believed to be motivated by the innate psychological needs with goals determined by a range of extrinsic and intrinsic factors (e.g., a goal mandated by an employer; a goal pursued for its own sake). Motivation is posited to range from amotivation (i.e., lack of motivation) to autonomous motivation (i.e., intrinsic, spontaneous). Further, people are seen as striving to master their environment and subsequently integrate those experiences into their sense of self. The expression of “self-determination” occurs when the individual engages in autonomous behavior reflecting intrinsic motivation. Specifically the motivation is believed to be self directed and chosen simply because it is interesting and satisfying to the individual (e.g., Deci & Ryan, 1987; Ryan & Deci, 2000; Grano et al., 2008).

SDT is similar to the SEM in that both theories view the self as agentic and that the self innately strives to be more whether it is through “growth” (Deci & Ryan, 1987)
or “expansion” (Aron & Aron, 1986). Further, both theories maintain that experiences need to be integrated into the self in order for growth or expansion to occur. However, SDT assumes that a person must feel autonomous, competent, and related in order for true self-determination to occur. Specifically, the self must freely choose goals for their own sake without factors extrinsic to the self influencing the choice of goals; goals must be chosen by an individual’s own volition. In contrast, the SEM assumes that the self will participate in self-expanding activities because of their ability to increase potential self-efficacy, that is, feelings of competence that the self could accomplish any goal that might arise (e.g., Aron & Aron, 1986).

SEM also does not specifically state that relatedness and autonomy are necessary components for growth or expansion as does SDT. Rather, SEM focuses simply on the motivation of the self to increase potential self-efficacy (e.g., Aron & Aron, 1996). Although much of the research in SEM examines a form of relatedness, that is, close personal relationships and the inclusion of others in the self as a common way in which individuals engage in self-expansion, SEM assumes that there are other domains in which SEM can occur. Theoretically self-expansion can occur even when a person has no autonomy such as in a prison or in a very restrictive culture so long as there are experiences that are perceived to be novel or exciting. For instance, a college student living at home may have very little autonomy yet experience self-expansion. Although it would probably be more difficult to achieve novel or exciting situations without autonomy; autonomy is not a requirement for self-expansion to occur.

Although SDT and the SEM share similarities in their assumptions of the self,
there are clearly differences. The most apparent difference discussed is that SDT uses three separate dimensions of motivation, whereas the SEM uses only one encompassing dimension. The SEM is not concerned about competency in relation to a specific goal rather; SEM emphasizes the importance of potential self-efficacy or feelings of competency to accomplish any goal that might arise. A majority of the research using the SEM focuses specifically on the process, especially as it occurs in the interaction with others (thus the focus on relationships).

The SDT and SEM have similar philosophical views of the motivational aspects of the self; however, the SEM is more parsimonious than the SDT and provides a clearer notion of its process. The SDT is not as clear of a framework as the SEM for understanding the underlying “why” human behavior. These attributes of the SEM are especially useful for research exploring what attracts individuals to participate in volunteerism. The SEM infers that volunteerism would be in the service of increasing the volunteer’s potential self-efficacy however; this proposition has yet to be demonstrated. Although SDT may be used more widely in the field of social psychology, the SEM is better suited for research endeavoring to increase understanding of phenomenon that occurs in later life because it is explicit about the nature in which self-expansion works – with a focus on the process of self-expansion.

Summary

The SEM model posits a conceptual framework to examine the ongoing efforts of individuals to self-expand (e.g., self-improve, enrich). Although research utilizing the SEM model has focused on close relationships as a method to self-expand, the close
relationships of older adults’ have not been notably examined. However, implications for use of the SEM model for older adults may be far reaching, especially when considering the possible effects of experiencing excess failure or punishment in efforts to expand the self over time.

For instance, if older adults were to use the inclusion-of-others-in-self as a strategy to self-expand, but ageist societal norms precluded their acceptance at dance clubs or other social gathering places (e.g., Palmore, 2001) it would be difficult for older adults to engage in self-expansion. Likewise if older adults were discouraged from participating in contemporary society (e.g., Eagly & Chaiken, 1993), it is possible that older adults would be deprived of the resources necessary for continuing self-actualization (e.g., Maslow, 1967). More specifically if ageist social norms preclude participation in society for older adults– access to and potential development of close relationships may be thwarted. Also, Aron et al. (1986) suggest that a diminished propensity towards self-expansion may occur when an individual may have experienced extensive failure or punishment for their efforts. It is possible that older adults may have a more difficult time in their efforts to self-expand. The stigma associated with being “old” as well as the challenges that can accompany growing older inhibit their efforts to self-expand. Further, older adults may have compromised access to novel or arousing experiences commonly experienced by young adults – barriers to access to these experiences may essentially result in failure or feelings of punishment. Conceivably, ageism, which is ubiquitous in American culture (Nussbaum et al., 2005), may be negatively influencing older adults’ self-expansion by implicitly discouraging older
adults from engaging in novel or exciting activities that may not fit societal norms for older adults.

The self-expansion model provides researchers a non-ageist framework that can broaden the perspective in which aging is examined. As a result, researchers may glean insights into the aging process previously undiscovered while enhancing currently existing gerontological theories. Understanding the “how” behind successful, productive, or conscious aging may provide insights into self-expansion throughout the lifespan and of aging previously unexamined.
Chapter 3 - Perspectives on Aging

A tacit assumption of the self-expansion model is that the self is motivated throughout the lifespan; therefore, expansion would continue regardless of an individual’s age. However, self-expansion in older adults would appear to be contrary to many notions of aging in the gerontological literature such as the pervasive idea of old age being a time of loss or a time to diligently avoid disease and decline. Further, many myths of aging still influence societal and individual beliefs regarding the aging process and reinforce ageist beliefs (e.g., Levy, 2003; Nussbaum et al. 2005). Assuming that self-expansion is a core human motivation, the SEM would offer s a view of aging through a different prism. A new perspective from which to examine contemporary theories of aging may serve to enhance or compliment these theories while allowing for further theoretical development.

Consider the reoccurring theme in the study of human aging: the waning body. Aging has been and continues to be portrayed as being synonymous with bodily decline, disease, decay, and loss. According to Warren (1998) this theme dates back to ancient times as reflected in treatises written by Greek and Roman Hippocrates (c. 400 BCE). Far back into ancient times the aging human, privileged with consciousness and thereby self aware, is betrayed by the aging body (e.g., Warren, 1998). Hippocratic writers linked the body to the Galenic system of “humors” (i.e., linking bodily fluids to the four elements of air, earth, fire, and water), astral influences, and heredity (Warren, 1998). Early handbooks on aging endeavored to counter the effects of the elements on the aging body (e.g., Arnaldus of Villa Nova, 1290; Bacon, c, 1240). For instance, breathing in the
breath of young people was thought to bring vitality to older adults. Also present in these writings is the notion of altering the aging process by use of moderation and (humoral) balance (Warren, 1998). Things have not changed much; the desire to alter the aging processes and viewing aging as a negative experience persists today (e.g., Friedan, 1993).

Research on aging has been lagging behind other sciences (Birren, 1959; Ferraro, 2007). Birren cites publications such as Problems of Ageing: Biological and Medical Aspects, (Cowdry, 1939) and Senescence, the Last Half of Life (Hall, 1922) as early examples of research on aging, albeit late to the field of science. These examples of early gerontology continue the trend from ancient times to address aging as “problem” to be solved by medical intervention with bodily decline being the focus of the aging process.

Differentiation between older adults who were simply older (“normal”) and older adults who were experiencing a disease process was beginning to be acknowledged by researchers in the 1940’s (e.g., Riley, Kahn, & Foner, 1994). The differentiation between aging “normally” versus being in a diseased state suggests that aging could be a normal part of human life with both positive and negative aspects. However, perspectives on aging in gerontological research continued to focus primarily on problems such as loss in older adulthood—a mindset that had a profound influence on gerontological thinking and theory (e.g., Ferraro, 2007). For instance, cognitive and physiological decline were thought to be inevitable and the aging process was assumed to be immutable (e.g., Riley et al., 1994). This perspective was in part driven by the fact that early research in gerontology tended to recruit participants from readily accessible populations such as those residing in Veterans hospitals or in nursing home. Although individuals in these
specific groups tend to face significant health issues they are only a small, non-representative percentage of the aging population. Reliance on the information provided in these early studies reinforced the problem-focused view of the aging process (e.g., Fry, 2007).

The influence of these early studies prompted gerontological scientists to develop theories that were arguably ageist. For instance, disengagement theory, once a staple of gerontological theory, argued that as one ages one gradually “disengages” from society and lessened engagement in activities such as employment and socializing in preparation for death (Cumming & Henry, 1961). Social networks of aging adults were found to become smaller and it was assumed that older adults were gradually withdrawing from society in preparation for death. Although this theory has since been refuted, it was popular for decades (Sneed & Whitmore, 2005). Subsequently, research has shown that older adults are hardly waiting for death after retirement; rather, many older adults are pursuing lifelong interests and discovering new adventures (e.g., Ryff & Singer, 1998). Although increasing age may involve losses in social, cognitive, and physical decline; aging also involves contentment, vitality, growth, and striving (e.g., Baltes & Carstensen, 1996).

Further, research has shown that, although with age social networks tend to get smaller, the size of the network may be more closely related to a preference of a few meaningful, affectively rewarding relationships over many superficial non-satisfying relationships as one perceives time to be more limited (e.g., Carstensen, Isaacowitz, & Charles, 1999).
Another influence to the direction and content of gerontological research was the advent of longitudinal studies on aging and their findings. These studies were initiated in response to the increasing longevity of the older adult population, which would undoubtedly have a significant impact on society. Longitudinal studies such as the Studies of Adult Life (Neugarten, 1987), the Duke Longitudinal Study (Busse & Maddux, 1985), the Baltimore Longitudinal Study on Aging (BLSA; Costa & McCrae, 1993), the Bonn Longitudinal Study of Aging (Thomae, 1990); and the Seattle Longitudinal Study of Intellectual Aging (Schaie, 1958, 1979, 1983) allowed researchers to examine aging over the lifespan and provided invaluable information regarding inter- and intra-individual differences of aging.

Recognizing that there were large differences in lifestyle choices, cohort influences, and genetics allowed different views of aging to emerge: aging is not a disease uniformly expressed in humans. Foremost, as data from longitudinal studies were collected and published, gerontologists discovered that many previously believed facts of aging were myths. For instance, traditionally, becoming older was thought to be associated with becoming cranky and rigid. By contrast, data from the Baltimore Longitudinal Study on Aging showed personality does not change very much after the age of 30; if you are happy and easy going at 30 you will most probably be happy and easy going at 80. Other findings from the Seattle Longitudinal Study of Intellectual Aging (SLS; Schaie & Willis, 1991) found that aging-related changes in individual intellectual abilities were much more varied across groups than the previous reliance on one an overall index of intelligence (i.e., intellectual ability) had suggested (e.g., Schaie,
1996). Findings from this study also showed that crystallized intelligence (e.g., life knowledge) persisted well into the seventies whereas decrements in fluid intelligence (e.g., quick recall) generally occur in the sixties. More than half of older adults in this study remained cognitively intact at the age of 81. The researchers also discovered that intellectual decline can be reversed with educational intervention and that cognitive decline may be more of a result of disuse rather than aging (Schaie, 1996).

Another common myth of aging is that, with advanced age, adults become more rigid and closed minded. The Seattle Longitudinal study, which focused on differences with personality and cognition, found that personality remains very stable throughout the lifecourse (Schaie, Willis, & Caskie, 2004). However, positive changes in personality have been noted in research focused on personality development in adulthood (e.g., Roberts, Helson, & Klohnen, 2002). For instance conscientiousness, emotional stability, and social dominance tend to increase with age. This may be in part because individuals who are more conscientious are less likely to engage in high risk behaviors and, therefore, live longer (e.g., Edmunds, Bogg & Roberts, 2009). Common myths of aging such as being sick, frail and dependent, becoming increasingly similar with age, and being psychologically and cognitively impaired have been subsequently refuted by research (e.g., Schaie, 1996; Diehl, Coyle, & Labouvie-Vief, 1996; Corrada, Brookmeyer, Berlau, Paganini-Hill, & Kawas, 2008). These and many other examples demonstrate that aging is by no means the inevitable decline that it once was considered to be. The view that self-expansion is a lifelong human motivation is enhanced by research findings that dispel myths of aging and allow for alternative perspectives to be
explored.

Although the modern understanding of aging is now informed by research on “normal populations” of older adults and from longitudinal studies, researchers in the field of gerontology continue to grapple with finding suitable theoretical models. Wilmoth and Ferraro (2007) proposed a multidisciplinary approach to gerontological discovery in which physical and social aspects of aging are integrated in the same model of aging. Moody (YEAR) maintains that contemporary research in gerontology is guided by four general ideological perspectives on aging: successful aging (e.g., Rowe & Kahn, 1987); productive aging (e.g., Morrow-Howell et al., 2003); aging as a social justice issue (e.g., Radical Gerontology, Estes et al., 1984); and conscious aging (Schachter-Shalomi et al., 1995). These philosophical perspectives influence how aging is defined and give direction to the methodologies used in aging research, and the assumptions made surrounding the aging process (e.g., Morrow-Howell et al., 2003).

**Successful aging.**

An important shift in the research reported in the gerontological literature occurred when Rowe and Kahn’s (1987) research findings from the MacArthur Foundation study of successful aging was published. This prominent study dispelled many previously accepted immutable notions of aging. The theory of successful aging focuses on three major components: avoidance of disease and decline; active engagement with life; and maintaining cognitive functioning. The role of the individual’s lifestyle choices became a central focal point of aging; the individual could influence seemingly immutable aspects of their own aging if they followed the guidelines of the theory.
Aging became viewed as a malleable aspect of the human condition; this perception significantly influenced the direction and focus of research in the field of gerontology (e.g., Strawbridge, Wallhagen & Cohen, 2002; Knight & Ricciardelli, 2003). Although notions of successful aging were more positive than prior theories on aging, the underlying assumption of advanced age as being a time of disease and decline still remained. Specifically, the avoidance of disease and decline presupposes that “usual” aging includes inevitable disease and decline and to avoid such aspects of aging results in “successful” aging. The notion of “usual” as compared to “successful” aging as defined by Rowe and Kahn (1987) continues to be a frequent focus in gerontological research (e.g., Baltes & Baltes, 1990; Knight & Ricciardelli, 2003).

Researchers such as Heckhausen and Schultz’s (1995) consider successful aging as being able to adjust goals to losses experienced as one becomes older (e.g., Lifespan Theory of Control). Brandstädter and Greve (1994) focus on older adults’ ability to assimilate or accommodate to losses during old age as an indication of successful aging. Baltes and Baltes, (1990) have argued in their notions of Selective Optimization with Compensation that the ability of older adults to maintain desired aspects of the self by finding information to support self beliefs or to adjust goals, by using self-enhancement or reduction/increase appeal of goals is detrimental to successful aging.

**Productive aging.**

Similarly, the notion of productive aging conceives of aging as a malleable process by positing that later life is a time of productivity and contribution to society rather than a time in which older adults are a costly burden on society. Presumably older
adults have developed expertise and skills, over a lifetime of experience that could potentially benefit society if older adults were provided a suitable opportunity to share these assets. Productivity is viewed from a perspective of staying physically and socially active and by engaging in various activities (e.g., hobbies, interests, socializing). Proponents of productive aging support their arguments by identifying the many ways that older adults contribute to society such as in volunteer work, care giving, and the arts (e.g., Bass et al., 1993). Older adults who stay productive are considered to be healthier and enjoy greater life satisfaction whereas unproductive older adults decline and develop disease(s). Productive aging promotes the actual and potential contributions of older adults and dispels the notions that becoming older means disengaging from society and becoming a burden to the young. Further, older adults’ activities are viewed as having both social and economic value with contributions ranging from paid employment, volunteering, family care giving, and self-care (Hinterlong, Morrow-Howell & Sherraden, 2001). However, once more, there is an underlying assumption that becoming older involves as a period of disease and decline to be avoided by remaining productive – thereby giving justification for older adults to receive social support.

The theoretical frameworks of successful aging and productive aging are similar in that they both promote staying active, either by active engagement in life or by being productive, as ways in which an individual can lessen the impact of aging (e.g., Rowe & Kahn, 1987; Butler & Gleason, 1985). Yet, aging is synonymous with disease and decline in these frameworks. The underlying message is to stay active and productive so disease and decline in the later years of an individual’s life will be slowed down. Based on these
theories, an individual might presume that staying active and productive is important only when an individual is “old”; younger individuals need only to be young to be healthy and not experience loss. However, researchers know that young individuals are not immune to disease and that losses such as the death of loved ones can occur throughout the lifespan. To presuppose that only the old need to stay active and productive suggests an ageist bias.

**Aging as social justice issue.**

Researchers that view aging as a social justice issue argue that older adults need not be productive or be deemed successful in order to be valued within a society (e.g., Estes, 1979). Rather than researchers portraying older adults as a social burden creating an economic crisis, becoming an older adult is viewed as a time in which citizens should expect to receive reciprocal support from society. Proponents of this framework maintain that the meaning of becoming old has been inappropriately construed as a political economic issue reflecting old age as a burden to younger members of society. Aging as a social justice issue informs discussions of the implications of public policies concerning older adults. For instance issues such as funding allocations for Medicare and the feasibility of sustaining the Social Security insurance program are argued from the standpoint of the equality of citizens regardless of age and ability to contribute monetarily to society (e.g., Estes et al., 1984). Research within the theoretical framework examines past and present constructions of aging in the political and economic arenas with focus on improving how older adults are perceived in the future.
Conscious aging.

Another area of research focused on the older adult population is that of conscious aging, becoming older is perceived as a time in which an individual can chose to become self-actualized; the older adult seeks greater self-understanding (e.g., Schachter-Shalomi et al., 1995). This framework is similar to Maslow’s (1967) pyramid in that the last and most difficult level of individual development, namely self-actualization, is believed to be acquired only after all other needs have been met which would presumably be during the later years of life. Researchers using the framework of conscious aging would view becoming an older adult as a time in which an individual may focus on reviewing their life and engage in self-reflective meditation. Further, becoming older may also be a time in which one may become more spiritual moving from simply “age-ing” to “sage-ing” (i.e., gaining insights and wisdom; Schachter et al., 1995). Conscious aging is viewed as a path chosen by an older adult; a journey on which the older adult struggles to live more consciously whereas notions of successful or productive aging focus on avoidance of aging (e.g., Moody, 2001). Conscious aging is similar to notions of gerotranscendence, which postulates that older adults can transcend socially normative beliefs and become enlightened; becoming older allows for the development of the perspective that there is intrinsically more to life than previously believed (e.g., Tornstam, 2005). This perspective of aging suggests that there is value in becoming older so long as an individual is consciously becoming older. Presumably, if an older adult did not seek spiritual meaning in their life or remained deeply ingrained in socially normative behaviors they would not be aging well. An implication of this framework is that age is
synonymous with wisdom.

Although lifespan development theoretical frameworks such as E. Erickson’s (1997) seven stages of human development support the notion of older age as a time of wisdom, being older does not guarantee being wiser. For instance, Joan Erickson (1999) refuted her husband’s claim of wisdom as the last stage of human development in her book “The Ninth Stage” (J. Erickson, 1997). Joan Erickson argued that although theoretically, wisdom should occur in the later years her empirical experience of growing older proved otherwise. It was not until she herself entered her later years did she discover that she did not feel any wiser than she did in her earlier years. Essentially, Joan Erickson argued that becoming older meant going back through each of the eight stages of human development and finding meaning in the challenges of retaining the hard won milestones acquired throughout life.

Although there are varied perspectives of aging which support differing assumptions of growing older, there remains an element of avoidance present in each of the perspectives described. Specifically, in order to age in an acceptable manner one must avoid falling prey to disease, decline, and loss. An individual must take appropriate steps to age successfully as promoted by Rowe and Kahn (1987); stay productive and contribute to society (e.g., Bass et al., 1993); have social justice in which becoming older is politically and economically deemed acceptable and treated equitably; or consciously age by finding deeper meaning in life in order to offset the inevitable negative aspects of aging. Theoretical perspectives of aging imply that becoming an older adult remains a time of life to be avoided and to take proper action to overcome or that an older adult
must somehow justify their existence by transcending social norms or developing wisdom.

**Application of Self-Expansion Model**

As suggested earlier, the self-expansion model offers a prism in which to view aging and to enhance theoretical frameworks on aging. According to the self-expansion model the self seeks opportunities to expand and to increase potential efficacy. The reader may recall that feeling of self-expansion is believed to be affectively positive, even when the activity that provided the experience may not have been positive (see earlier section on SEM). Motivation as viewed by the SEM is not guided by avoidance behavior (i.e., eliminate negativity) rather by the promotion of the individual’s self and well-being through the experience of self-expansion. Based on the assumptions of this framework so long as there is a “self” there is a motivation to expand; therefore self-expansion would occur throughout the lifespan *regardless of age*. Since the SEM treats self-expansion as a core human motivation, SEM does not share the implicit assumption that older humans stagnate or decline. Rather, by applying the core tenets of the SEM use of the SEM can actually expand and clarify contemporary theories of aging by offering another perspective in which to examine aging.

**Ageism.**

I have argued that the influence of ageism is implicitly expressed in gerontological thinking as evidenced by the assumptions of the theoretical frameworks described above. Ageism is a term originally coined by Butler (1969) to describe negative attitudes towards an individual or group based solely on age. Ageism is a ubiquitous
aspect of society and research has found compelling evidence of the influence of ageism in to be reflected in psychological theories and entry level psychology textbooks (e.g., Whitbourne & Hulicka, 1990). Increased awareness of the presence of ageism has suggested that the reduction of ageism and discrimination against older adults could be had by reconceptualizing notions of successful aging (Dillaway & Byrnes, 2009). For instance, political motivations are speculated to have influenced the development of the terminology used in the theories of aging such as “successful” or “productive” aging.

Ironically, although these terms provide a more positive notion of the aging experience, they also suggest that older adults have sole control over their success or failure to age well; suggesting that they must contribute to society indefinitely (i.e., be productive – produce) in order to be worthy of social support and be “successful.” For instance, an individual at any age would benefit from avoiding disease and decline, active engagement with life, and ongoing cognitive function. For instance children with obesity are at high risk of developing the disease of diabetes II and potentially declining (Olshansky et al., 2005) and would therefore benefit by following the recommendations provided by Rowe and Kahn (1986) in the successful aging theory.

Self-expansion Model and Successful Aging

The self-expansion model (Aron et al., 2001) offers a framework that can compliment and inform successful aging theory. Rather than looking at successful aging from a perspective of forestalling aging, self-expansion offers the possibility of successful aging as a means to embrace aging in service to the ongoing need to expand the self. Presumably, providing that the individual has overcome obstacles to self-
expansions, the older an individual becomes the greater the potential for self-expansion; therefore, participation in self-expanding activities would be compatible with and support by the tenets of successful aging. For instance, SEM maintains that the more an individual expands the self, the more likely the individual is to engage in self-expanding activities. However, older adults commonly face the effects of ageism, which may limit their opportunities to participate in self-expanding activities and compromise their self-efficacy. The self-expansion model posits that if an individual is repeatedly faced with failure or punishment when participating in a self-expanding activity then the individual may stop attempting to self-expand (e.g., Aron, Norman, and Aron, 1998). If an older adult were to no longer self-expand, arguably detrimental effects on an older adults’ ability to adhere to the recommendations of successful aging theory would likely also occur. By “staying engaged” in an effort to avoid decline, successful aging theory may actually be recommending a continuation of engaging in self-expanding activities. According to SEM, an individual who experiences and subsequently integrates self-expanding phenomena also experiences the individual continues to develop potential self-efficacy, which would provide older adults with the ability to “successfully age.”

**Self-expansion Model and Productive Aging**

Productive aging theory’s (e.g., Bass & Caro, 2001) focus on an older adult’s ongoing contributions to society coincides with the notion of self-expansion throughout the lifespan. In fact staying productive would likely allow for more self-expansion to occur because of the increased likelihood of encountering novel situations. Productive aging theory includes consideration of both potential contributions of older adults, based
on a life time of skill building, and actual contributions, such as being a family caregiver or tax payer. Similarly, the self-expansion model is concerned with the individual’s seeking of opportunities to increase potential self-efficacy and the individual’s actual self-expanding experiences in the service of expanding the self (e.g., Aron & Aron, 1986).

Further, productive aging theory maintains that an older adult is valued and perceived as productive simply because they possess a lifetime of acquired knowledge that could be shared; the potential of sharing is deemed as productive just as an individual would value potential self-efficacy (i.e., feeling confident that one can achieve any goal that might come to mind). Valuing the potential of an older adult is similar to the value an older adult would have in pursuing self-expanding experiences in an effort to increase their potential self-efficacy.

Productive aging looks to various modes of staying productive such as paid employment, volunteering, and family care-giving, all of which have social and economic value (e.g., Warburton, Le Brocque, & Rosenman, 1998). Research using productive aging theory found that both self-rated health and life satisfaction were positively affected by staying physically and socially active (Baker, Lawrence, Cahalin, & Burr, 2005). Self-expansion is believed to occur in various domains such as physical and social influence (e.g., power relationships), cognitive complexity (e.g., general knowledge), social and bodily identity (e.g., identities with individuals or groups), and awareness of position in the universe (e.g., meaning of life). The domains of self-expansion concur with the areas in which an older adult could stay productive thereby supporting positive
levels of self-rated health and life satisfaction.

Conceivably, participation in productive aging is beneficial for older adults because, at least in part, older adults are able to continue self-expansion while engaging in productive activities. However, not every kind of productivity is really beneficial, nor does any kind of productivity lead to self-expansion. A core premise of SEM is that experiences are novel or arousing and that the individual is able to integrate the experience into the self. Being productive by engaging a monotonous activity (e.g., digging ditches) may not be very self-expanding, though being productive. However, SEM offers clarification to the productive aging notion by emphasizing the importance of not only “doing” for the sake of doing but rather “doing” in the service of expanding the self.

The productive aging theory is primarily concerned to the individual’s contribution to society (a person’s productivity), whereas SEM is primarily concerned with the psychological effects of an activity. In many instances, the individual may indeed experience a productive activity to be self-expanding, to the extent that individual can experience as generative or emotionally invested in “making a contribution.” At the same time, and other than productive aging, SEM does not require a psychologically beneficial activity be linked to measurable outcomes that benefit others or society at large. For instance, whereas advancing one’s knowledge in chess might be considered a personal pleasure and unproductive, it might still be experienced as self-expanding.

**Self-expansion Model and Aging as a Social Justice Issue**

Social justice issues surrounding aging tend to focus on the political and
economic structures related to the cost of older adults to society. Aging is a construct that would be of little consequence but not for the social policies that render an individual of a certain age worthy of care or societal concern. For instance, notions of the “aged” being a burden to society because of the likelihood of increased health care costs when the aged no longer pay into the various systems of support is one way in which the meaning of being older is defined. The notion that you must continually pay into a system in order to be of value devalues older adults. Perceptions of older adults as burdens or unworthy on the basis of no longer contributing monetarily to society is considered denigrating to the aging individual as well as society as a whole. Estes (2001) argues that being older should not require ongoing monetary contributions; rather, a reciprocal exchange between past contributions and current needs should be upheld.

Aging as a social justice issue implies that older adults are not only worthy of social support and respect but also that older adults have intrinsic value beyond their ability to generate contributions. This notion of intrinsic value bodes well when considering the ability of an older adult to continue engaging in self-expanding activities. For instance, during younger years perhaps an older adult engaged in self-expanding activities in a specific career; as time went on opportunities to self-expand in that arena may have diminished or become less attractive. However, the older adult would theoretically be able to continue self-expansion in other areas of personal interest in part because of the increase of potential self-efficacy that occurred while self-expanding within their career.

The potential of an older adult who is engaged in active self-expansion would
plausibly be of greater value than one who has stopped self-expanding in response to punishment or failure (e.g., ageist policies). For instance, if an older adult repeatedly attempts to re-enter the workforce in a different career but is met with confusing policies and restrictions that result in failure to re-enter the workforce, self-expansion in that specific domain may cease. Or if an older adult is penalized for attempting to re-enter the workforce by reduction of retirement benefits or cessation of health benefits, both of which are related to public policy, self-expansion may cease. Theoretically, if self-expansion ceases in a specific domain, productivity within that domain would also cease which could in turn result in lower self-rated health and lower life satisfaction.

**Self-expansion Model and Conscious Aging**

Core premises of conscious aging include notions of self-actualization (e.g., Maslow, 1967), self-reflected mediation, life review (e.g., Butler, 1975), and gerotranscendence (e.g., Tornstam, 2005). Proponents of conscious aging suggest that becoming an older adult can be a process of moving from “age-ing” to “sage-ing” when an older adult “consciously” becomes older (Schachter-Shalomi et al., 1995). Conscious aging is not something that occurs within every individual who becomes older, rather only those who are mindful of their own aging and reflective of their life experiences.

Conscious aging implies that only older adults who are consciously aging are aging well; they are of value because of their ability to become sage or wise. Although conscious aging suggests that only the wise are worthy of societal support, the notion of consciously aging does reinforce the importance of self-expansion; that is the importance of the self in reflecting and making sense of life experiences.
The self-expansion model proposes that self-expansion occurs in a two phase process: first the experience of self-expansion (e.g., increasing complexity); then integration (e.g., incorporate the experience into existing cognitive structures). These two phases are similar to the basic tenets of conscious aging in that they assume that the self is reflective, that is, self-aware. Self-expansion would be in service to conscious aging but not exclusively, since self-expansion is believed to occur in various other domains. Specifically, conscious aging would be similar to the self-expansion domain of awareness of position in the universe (e.g., finding meaning in life); however, other domains, such as physical influence and cognitive complexity, are also options for the older adult to self-expand (e.g., Aron & Aron, 1986).

**Summary**

The self-expansion model can serve as a prism for contemporary theories on aging by informing and complementing assumptions. The self-expansion model provides an explanation for motivational components of aging successfully, productively, and consciously, while further highlighting the importance of positive social policy surrounding aging.

An area of interest in which self-expansion may be of significant value is in participation in volunteering activities. Volunteering offers older adults the opportunity to successfully age by staying active and cognitively engaged; a means to age productively; a way to support the notion of aging as a social justice issue; and a way to express “sage-ing” by giving of oneself.
Chapter 4 - Volunteerism in America

Volunteering continues to be an important part of society in the U.S. The centrality of volunteering in America was observed as far back as 1836 when Alexis de Tocqueville proclaimed in his book, *Democracy in America*, that American involvement in volunteering far exceeded involvement in all other nations (Tocqueville, 1836). Over 26% of Americans (approximately 61.8 million people) engaged in at least one volunteer activity between September, 2007 and September, 2008 (USDL, 2010). The Bureau of Labor Statistics estimates that the average hour of volunteer service is worth about $20.25. Hours engaged in volunteering activities topped $8 billion in 2008, which generated approximately $162 billion in the United States’ economy. Volunteers engage in various activities such as fundraising, providing respite care, and serving food to the homeless, to name only a few.

Although volunteers range in age, volunteers aged 65 and older spend more hours annually volunteering than any other age group; 96 hours as compared to 40 hours for those 16 to 19 or 25 to 34 years old (United States Department of Labor (USDL; 2010). In a study conducted by the Association for the Advancement of Retired Persons (AARP; 2003) individuals between the ages of 58 and 69 years volunteered more hours per month than any other age group (i.e., mean of 18 hrs.). Clearly, older adults provide an abundance of volunteer services at a substantial monetary and economic benefit to society.

The high level at which older adults are civically engaged in volunteering offers new opportunities to deal with the challenges of a graying society especially in an
economic climate where financial resources for social programs are dwindling. Policy
makers focus on civic engagement as a strategy to offset the financial impact that stems
from the older adults being an increasing proportion of the population. A case that
illuminates the importance attributed to civic engagement in older adulthood comes from
the 2005 White House Conference on Aging that passed no less than five resolutions
related to civic and social engagement (O’Neil, 2006-07). Among other things, politicians
touted civic engagement and personal responsibility, emphasize that older adults should
stay productive and give back to society. Moreover, two programs dedicated to involving
older adults in volunteering service, Senior Corps and the Retired and Senior Volunteer
Program (RSVP) were recognized for their efforts, and support for these programs was
extended.

Productive Aging/ Successful Aging and Volunteering

The reader may recall in earlier discussions of the theories of productive aging
(e.g., Hinterlong et al., 2007) and successful aging (e.g., Rowe & Khan, 1987) that these
theories share the idea that staying active offsets the undesirable effects of aging. It is
easy to see how volunteer activity on the part of older adults speaks to these perspectives.
Whereas older individuals may have left the labor market, their continued engagement in
providing goods and services on a volunteer basis renders them productive members of
society. As discussed in the last chapter, productive aging theory argues that, rather than
being a time of costly societal burden to society, later life is a time of contribution to
society if older adults are allowed to engage in activities that are productive (e.g., Bass et
al., 1993; Butler & Gleason, 1985). Research has suggested that older adults, by virtue of
their lifetime of experiences, have much to contribute to the well-being of society rather than take from society if given the opportunity to do so (e.g., Hinterlong, 2008). However, a core concern of productive aging theorists is that older adults are frequently excluded from activities such as part-time employment. Engagement in such activities would allow for an older adult to share their knowledge and continue participating in socially valued activities. Frequently perceptions of older adults as being unable or unwilling to embrace technology or learn new skills have been barriers to the potential contributions of older adults (e.g., Bass et al., 1993). Further, popular perceptions of the aged tend to focus on the costs to society such as health care costs rather than the potential and realized benefits of older adults such as civic engagement (e.g., Bass & Caro, 2001).

Proponents of productive aging maintain that by staying physically and socially active older adults can age successfully avoid the disease and decline associated with getting older (e.g., Morrow-Howell et al., 2003). Research on productive aging has shown that older adults do benefit from engaging in productive activities. For instance, a secondary data analysis from three waves of the Americans’ Changing Lives Study (n = 1,644) examined paid workers, irregular paid workers, unpaid volunteers, caregivers, and providers of informal social assistance. Researchers found that older adults, who engage in productive activities such as volunteering, tend to be healthier and enjoy greater life satisfaction (Hinterlong, Morrow-Howell & Rozario, 2007). Findings also suggested that multiple roles in productive activities are linked to health as evidenced by the positive correlation between one or more role and self-rated health scores; however, depressive
mood was not associated (Hinterlong et al., 2007). These findings suggest that although productivity can be an important component in supporting good health in older adults, but it is not yet clear as to the cause of improved self-rated health. Conceivably, the relationship between productive aging and good health may be due to self-selection. That is, those who are healthier may be more likely to seek out and participate in productive activities than those who are less healthy.

Participation in volunteering activities also provides a means for older adults to “successfully age.” Successful aging theory maintains that, when older adults stay actively engaged in life, retain mental and physical functioning, and avoid decline they will successfully age (Rowe & Kahn, 1987). Volunteers participate in a variety of activities, which could provide opportunities for older adults to interact with others thereby increasing their social networks and reducing the likelihood of social isolation. Further, volunteering can result in learning new skills and trying on new roles, which would support physical and mental functioning (e.g., Morrow-Howell et al., 2003).

Morrow-Howell et al. (2003) showed in three waves of data collected in 1986 ($n = 1,669$), 1989 ($n = 1,279$), and 1994 ($n = 900$) that older adults who volunteered reported higher levels of well-being compared to those who did not volunteer. This was the case especially when the nature of the volunteer work was meaningful and challenging (Morrow-Howell et al., 2003). Clearly, engagement in volunteer activities holds great promise in the pursuit of aging “successfully.”

Research on volunteerism also suggests that participation in volunteer activities serves a variety of psychological functions for older adults (e.g., Clary et al., 1998).
Functions such as expressing important values, seeking to learn, seeking to grow and developing psychologically, gaining career-related experience, strengthening social relationships, and reducing personal guilt are believed to be served by participation in volunteering activities. The body of research examining how to engage older adults in volunteering activities continues to grow. Some examples include exploration of recruitment and retention of older volunteers (e.g., Grano et al., 2008); designing volunteers’ tasks to increase volunteer engagement (Millett & Gagné, 2008); role identity, organizational experiences, and the dispositional aspects of volunteering (e.g., Penner, 2002; Grube & Piliavin, 2000). From the perspective of successful aging theory, participation in volunteering activities would benefit older adults by providing a way to stay actively engaged in life (e.g., Rowe & Kahn, 1987). Indeed, as discussed above, volunteering has been linked to greater well-being (e.g. Morrow-Howell et al., 2003).

Although both the productive aging perspective and the successful aging perspective highlight the contribution of volunteering to productivity and aging success, these theories do not address the motivations behind older adults engage in volunteering. As previously discussed, an implicit assumption of these theories is that inevitable disease and decline define aging. Presumably, older adults who participate in theoretically recommended activities are motivated by the desire to ward off the inevitable diseases and declines associated with aging in an effort to retain youthfulness. This assumption ignores the possibility that other motivations may be influencing older adults’ decisions.
Conscious Aging and Volunteering

A core premise of conscious aging is that with advancing age adults become more aware of their personal experiences of being alive; a deepened sense of personal meaning and purpose increases while conformity to societal norms decreases (Moody, 2001). Conscious aging is conceptualized as a holistic experience in which the self becomes more integrated and complex. Volunteering can be viewed as an effective strategy to bring meaning in later life by being productive. However, productivity could also be viewed as a barrier to consciously aging. In theory, in order to consciously age an older adult would need time to be reflective; being productive may take away the time necessary to reflect. However, it is possible that by engaging in volunteer activities conscious aging may occur if the activity offers the potential to gain deeper insight and meaning. For instance, if an older adult were to volunteer as a hospice caregiver it is conceivable that a greater awareness of the interplay between life and death may develop that may prompt a sense of greater spirituality. Notions of conscious aging as an emerging framework in the field of gerontology can be found in gerontological literature (e.g., Moody, 2001). However, a scientific methodology to explore the usefulness of this framework in empirical research has not yet developed. Therefore, an analysis of this framework in regards to self-expansion and volunteering will not be pursued here.

Social Justice and Volunteering

Frequently, older adults are viewed as a drain on social systems, no longer contributing to society, and engaging in predominately leisure activities (Rozario, 2007). This sharply contrasts with the reality that over 51 percent of adults age 55 and years and
over report participating in informal volunteerism (Zedlewski & Schaner, 2006). Not only do older adults continue to contribute to society, they also represent a potential resource to offset some of the workforce shortages. Shift from poorly funded government-supported programs to volunteer support may seem to be a reasonable strategy. However, from a social justice perspective, notions of aging may be at risk of transforming from a time of perceived frailty and dependence to a time in which older adults must engage in volunteering activities in order to be considered worthy (e.g., Martinson & Minkler, 2006).

Implicitly there is a presumption that all older adults, especially those in the Baby Boomer cohort, are better educated and vibrantly healthy as compared to prior cohorts. Therefore, this up and coming cohort is presumed to be a largely untapped social resource – ripe for filling budgetary deficits at little to no costs. There are potentially harmful consequences to this presumption. The viewpoint that all older adults want to give back to society and are capable of engaging in volunteer activities overlooks the heterogeneity of older adults and the possibility that many older adults cannot engage in volunteer activities. Older adults who chose to not engage in volunteering may be at risk of stigmatization and devaluation because they are not perceived as “giving back” (e.g., Martinson & Minkler, 2006).

However, underlying the view of older adult as volunteers with economic and social value is an implicit presumption that it is the responsibility of older adults to support communities and social programs rather than the government or other citizens (Martinson & Meredith, 2006). Although volunteering by definition is presumed to be an
act of an individual’s choice, the view that older adults commonly volunteer may become a social norm, that is, being older means being a volunteer (e.g., Estes, Biggs, & Phillipon, 2003; Martinson & Minkler, 2006). A social norm or expectation of older adults as volunteers may be especially problematic for older adults who are unable to volunteer in that they may be stigmatized because of their lack of civic engagement or volunteering. Estes et al. (2003) implore researchers to consider the broader implications of the political and economic context in which volunteering and civic engagement are promoted. For instance, volunteering and civic engagement are highly touted during difficult economic times and notion of older adults benefiting becoming popular.

Promotion of the notion of productive aging and of older adults as volunteers also serves to reduce both societal costs of caregiving and lessening the burden of health care costs of older adults by keeping older adults healthier longer. Estes et al. (2003) argues that this paradigm effectively takes the burden of caregiving and of health care cost containment off of society and places it on older adults. On the other hand, the notion of older adults as being synonymous to volunteering may actually improve the overall societal standing of older adults (in the eyes of others) and undermine or reduce ageism by emphasizing the importance of older adult volunteers. Therefore, careful consideration should be given in perpetuating a view that may undermine improvement in the way older adults are perceived.

**Motivations for Volunteering**

The sheer number of adults soon to be entering retirement age has prompted policy makers to focus on civic engagement as a strategy to offset the effects of aging and
lessen the financial impact of an aging society. The White House Conference on Aging (2005) focused on civic engagement with five resolutions being brought forward that were related to civic and social engagement (O’Neil, 2006-07). Civic engagement and personal responsibility were highly touted by politicians; giving back to society and staying productive were emphasized. Programs like the Senior Corps and the Retired and Senior Volunteer Program (RSVP) were being recognized for their efforts and support for these programs has been extended.

The governmental focus on supporting and developing volunteer programs provides increasing opportunities for older adults to be productive. However, increasing participation in these programs would conceivably require knowing as to why older adults choose to volunteer in the first place. More specifically, understanding why an older adult initially participates in volunteering activities and why and older adults continues to volunteer would be essential to increasing participation in volunteerism programs. Development of effective innovative volunteer programs would depend on knowing what motivates older adults to volunteer in the first place. Various theoretical frameworks have been utilized in research endeavoring to understand the motivational aspects of volunteering such as the functionalist approach (e.g., Houle, Sagarin, & Kaplan, 2005; Clary et al., 1998); role identity theory (Lee, Piliavin, & Call, 1999; Grube, & Piliavin, 2000; Chacon, Vecina & Dávila, 2007); and self-determination theory (e.g., Grano et al., 2008).

**Functionalist Approach**

The functionalist approach to motivation is based on a presupposition that
individuals have goals or psychological needs that they pursue in their everyday lives (e.g., Clary & Snyder, 1991). Generally, individuals will engage in those courses of action that are most likely to satisfy their needs or help them achieve their goals. Individuals with different goals engage in different activities; however, individuals may also engage in the same activity in the service of different goals. That is, the same action may serve different psychological needs. For instance, three people may choose to ride their bike to work: Person A may be motivated by saving money on gas; person B may be motivated by the desire to reduce carbon monoxide emissions; and person C may not have any other choice of transportation.

The functionalist approach to motivation has long been successfully employed in a long line of research to understand why people hold certain attitudes, or why they are more or less receptive to specific persuasion attempts (e.g., Smith, Bruner, & White, 1956; Katz, 1960). Since the same attitudes can serve different functions, understanding the function served by the attitude would be essential for persuading someone to participate in a volunteer organization. For instance, if an individual felt a moral obligation to help those in need, then successful recruitment of the individual would be more likely if the volunteer program emphasized the neediness and vulnerability of the population to be served by the volunteer organization (Clary et al., 1998).

Specifically, Clary et al. (1998) proposed that six different motivations are the basis for an individual’s decision to become involved in volunteering activities: values, understanding, enhancement, career, social, and protective. The values function refers to an individual’s need to express altruistic and humanitarian caring or simply concern for
others and is often a trait of those who volunteer (e.g., Allen & Rushton, 1983). If volunteering serves the function of expressing altruistic concern, then an individual’s completion of anticipated volunteer time commitment is more likely (e.g., Clary & Orenstein, 1991). The understanding function of volunteering refers to the opportunity for volunteers to gain understanding or engage in new experiences that facilitate learning new skills, self-development or learning in general. Social functions of volunteering include fulfilling a need to socialize or be with friends. Individuals who volunteer as a way to be social also are influenced by the perception of the behavior by society such as being rewarded or esteemed by society because volunteering is valued by the individual’s social network or the general society.

Volunteering may also serve the function of assisting an individual to prepare for a career or allow an individual to maintain skills in their chosen career as suggested in the career function. For instance, working as a volunteer on a political campaign may serve the function of learning how to run for a political office. The protective function of volunteering is tied to notions of ego defense, reducing feelings of guilt related to an individual’s personal problems or being more fortunate than others. For instance if an individual is wealthy but sees many starving children the individual may choose to volunteer in an effort to reduce any feeling of guilt for having so much while other have so little. Finally, the enhancement function refers to notions of positive strivings of the ego and the ego’s growth and development as well as increasing self-esteem (e.g., Jenner, 1982). Essentially, the enhancement function describes the ego’s desire to feel positive for the sake of feeling positive rather than to reduce negative feeling as in the protective
These motivations focus on the psychological aspects of volunteering and support the notion that individuals are active agents seeking opportunities that are reflective of the self and identity. In support of the functionalist approach research has indicated that different recruitment messages for volunteers appeal to different motivations (Clary, Snyder, & Ridge, 1992); consequently, they are more successful in recruiting different individuals. However, different causes and activities tend to draw individuals with different motives (e.g., Clary et al., 1998; Houle et al., 2005). For instance, an individual motivated to volunteer because they want to learn more about art, would likely be persuaded to volunteer as a docent at the local Museum of Modern Art with a recruitment message emphasizing opportunities to interact with local artists. Continued participation in a volunteering activity is dependent on the “person-situation fit”; the more the volunteering activity is in line with the individual’s own motivation the more likely the individual will continue volunteering in that activity (Clary et al., 1998). A volunteer whose volunteer role is closely matched to their motivation for volunteering would likely receive satisfaction and joy from engaging in the activity; therefore, they would likely continue volunteering.

**Role Identity Theory**

Role identity theory is anchored in the work of Mead (1934) and in the symbolic interaction tradition (e.g., Stryker, 1980). The person, role, and society are inextricably entwined; the person’s sense of self is developed from society’s (“others”) reflected appraisals, the self takes on roles within society forming a “sense of self,” that is,
concepts of self. The various roles form identities; identities are reflective of the social roles (e.g., Stryker, 1980). The notion of the “looking glass” self posits that an individual’s sense of self is largely derived from the individuals’ perception of how others view the individual, therefore, individuals are influenced by societal norms (e.g., Cooley, 1902).

Although research has demonstrated that the motivation to volunteer can serve various intrinsic psychological functions (e.g., Clary & Snyder, 1998), societal pressures also influence behavior. For instance, researchers have found that individuals who frequently attend church services are more active in volunteering than individuals who attend less frequently, in part, because of more frequent social pressure to participate in volunteering activities (Ruiter & DeGraaf, 2006). In a larger social context researchers have also found that in devout countries church attendance is less of an indicator of volunteer participation than in secular countries supporting the notion that societal pressures influence individual behavior (Ruiter & DeGraaf, 2006). In other words, an individual who volunteers may be influenced not only by their immediate church environment but also by the broader environment in which the church is located. Presumably, the overall importance of religion in an individual’s life would influence volunteering activities.

Further support of the notion that external pressures such as social expectations for members of a group to volunteer, prompting an individual to volunteer even though the individual did not feel an internal obligation to do so can also be found in research on blood donors. For instance, researchers have found that individuals who volunteer to
donate blood sometimes do so to avoid social sanctions rather than for internal psychological reasons (e.g., Piliavin & Callero, 1991).

When an individual initially engages in a volunteer activity such as donating blood, the individual may continue to do so to avoid social sanctions thereby taking on the role of blood donor volunteer. However, over time an individual may develop an identity of a “blood donor volunteer” especially when: there is a mutually reinforcing dynamic such as the individual seeing the activity with positive affect; and it is a source of important experience. For instance, if an individual who volunteered to donate blood was informed of the number lives that were saved by blood donations, was publicly recognized for volunteering, and enjoyed visiting with co-workers while donating blood the individual would likely develop the identity of volunteer.

Identity formation, such as that of a volunteer is central to the concept of role identities. Role identities are cognitive self-schemas of the various roles that person perceives as part of their self (e.g., Stryker, 1980). The varying roles identities guide the individual’s behaviors and beliefs. Identity formation generally takes place over a period of time with the longer an individual has participated in activities related to the role identity the more the role identity is a part of the individual’s sense of self. In other words, there are mutually reinforcing aspects such that the role-identity becomes part of the self-identity and the self’s identity reinforces participation in activities related to the role. An individual will generally act out the role (similar to an actor in a play) however, over time the actions or behavior become second nature and the individual becomes the role. The formation of identities is critical to human existence, it is how human make
sense out of a very diverse and complex society. Also role identities are critical to understanding the motivation behind repeated behavior such as that of a life time volunteer (e.g., Charng et al., 1988).

Specifically, research has shown that when the role of volunteer becomes deeply integrated into an individual’s sense of self, the more likely the individual is to continue volunteering (e.g., Grube & Piliavin, 2000). More specifically, when an individual’s self-view becomes that of a volunteer (“I am a volunteer”) the individual is committed to he volunteer activity and will most likely remain a volunteer. An individual whose identity is entwined with the organization that they volunteer tend to align their goals and values with the organization resulting in long-term volunteering. Further, alignments between the status, mission, and vision of a volunteer organization along with having an identity of a volunteer, have found to be predictive of ongoing volunteering activity (Grube & Piliavin, 2000).

In summary, in line with the basic premise of role identity theory, the more an individual sees “self” as a volunteer within their respective organization, the more their identity is that of a volunteer resulting in a greater likelihood that the volunteer continue to volunteer within the organization (Grube & Piliavin, 2000; Chacon et al., 2007).

**Self-determination Theory and Volunteering**

As discussed in a previous chapter, the core premise of self-determination theory is that humans are volitional; they make choices and actively engage in behaviors that support three basic psychological needs: autonomy, relatedness, and competency (e.g., Ryan & Deci, 2000). In addition, self-determination theory would argue that people can
satisfy these basic psychological needs through their volunteering activities. Self-determination theory shares the notion of the pursuit of needs with the self-expansion model; both view the self as agentic and engaging in activities that satisfy basic psychological needs. This theoretical framework shares with Clary and Snyder’s (1999; Clary et al., 1998) functionalist approach that volunteering might serve different psychological needs.

Grano et al. (2008) found self-determination theory to assist in the understanding of intentions to volunteer in a group of older adults \(n = 565\). In this longitudinal study the majority of participants were currently engaging in volunteering activities (84%). In an initial interview the authors assessed self-efficacy, attitudes toward volunteering, subjective norms of volunteering, perceived behavior control, self-efficacy, intention to volunteer, self-determined motives to volunteer, and self-reported volunteer activities in the past three months. The second assessment occurred three months later where participants self-reported their past volunteer activities occurring since the first assessment.

Findings of this study support the notion that participation in volunteer activities over time are directly related to the participant’s reason for volunteering (motivation) which was indirectly dependent on participants’ attitudes towards volunteering (Grano et al., 2008). Participants who viewed being a volunteer as being their personal choice and had more positive attitudes towards volunteering reported greater intention to volunteer; intention to volunteer was a strong predictor of volunteering over time (Grano et al., 2008). Moreover, core notions of self-determination theory were clearly supported by
correlational findings in which a continuum of motivation was identified from no motivation (i.e., amotivation and external motivational states) to intrinsic motivational states. Not surprisingly, older adults for whom volunteering was a way of life and an important aspect of their self-concept had more positive attitudes towards volunteering and had more autonomous motivations to volunteer. This supports a core premise of self-determination theory in that participation in ongoing volunteering activities is more likely if the motivation to volunteer is internalized and the result of autonomous choice. These findings are also consistent with the self-expansion model’s notion of the self as agentic.

**Self-expansion Model**

The theoretical framework of self-expansion shares similar aspects of other motivational theories in that the agentic self is directing behavior in the service of basic human needs. However, the self-expansion model offers a broader more concise explanation. For instance, the functionalist approach to understanding volunteers’ motivations to engage in volunteering activities shares with the self-expansion model of motivation the notion that is the person, the “self” that is actively directing volunteering. Rather than focusing on a specific function served by engaging in volunteering, the self-expansion model focuses on the underlying motivation for any function, which would be increasing the potential self-efficacy. Theoretically, self-expansion is believed to occur in very different forms (e.g., close personal relationships); therefore, volunteering would be viewed as one of many possible ways to increase potential self-efficacy rather than to increase the self-efficacy of achieving a specific goal in service of a specific function such as enhancement. Likewise, individuals might engage in volunteering for a number
of different reasons; as long as the activity serves the individual’s psychological needs, and causes excitement, self-expansion will occur.

Similarly, role-identity theory has been shown to be helpful in determining volunteer longevity and organizational commitment (e.g., Grube & Piliavin, 2000; Chacon et al., 2007). These notions are complimentary of each other: individuals “build”/”strengthen” their identity as a volunteer to the extent that self-expansion occurs. In other words, if the activity of volunteering is experienced as self-expanding (with the relevant emotional consequences) then the result should be an identity as a volunteer. This is similar to the idea of self-expansion being the process and IOS/ICS being the outcome. By implication one’s personal sense of devotion to volunteering (volunteer identity) is the outcome of self-expansion while volunteering.

The identity of being a volunteer increases the resources available to the individual thereby increasing self-efficacy. Further, the experience of self-expansion is believed to be inherently positive, with rapid expansion being perceived as exhilarating (e.g., Aron & Aron, 1996). Therefore, the experience of volunteering may be effectively positive, in part, because of the positive experience of self-expanding reinforcing the likelihood of participation in volunteering activities. The self-expansion model would suggest that the motivation behind increasing role-identity would be to increase potential self-efficacy for future achievement of whatever goal may arise; conceivably, the more the role of volunteer provided self-expansion the more likely the individual would remain a volunteer.

Self-determination theory is similar to the self-expansion model in that the self
can be viewed as volitional and having basic psychological needs (e.g., Ryan & Deci, 2000). Also, the self is viewed as being the underlying motivator in both self-determination theory and the self-expansion model. Self-determination theory would also argue that the same behavior can be regulated by external sources (e.g., structural, non-intrinsic) or by personal volition or choice. Further, self-determination theory views true self-determination as a result of increasing self complexity and development; presumably the self is not agentic if actions are determined by external controls. Whereas the self-expansion model would argue from a more intrinsic self view - that the self seeks opportunities to expand as a basic need throughout the life time; suggesting that actions are the result of the agentic self.

Therefore, if an older adult is engaged in volunteering activities, self-determination theory could argue that the older adult could be volunteering because of a requirement (such as to fulfill a court ordered mandate for public service) or because the older adult freely choose to be a volunteer (e.g., Grano et al., 2008). The self-expansion model would be more concerned with the actual experience of volunteering and the levels of novelty and excitement encountered while volunteering.

**Summary**

Roughly a quarter of Americans tend to volunteer over the course of a year, working billions of hours for the benefit of others (www.VolunteeringInAmerica.gov). For those older adult who choose to volunteer, there clearly are benefits. Research has found that older adults who engage in volunteering activities and for more hours have higher levels of self-reported well-being (Morrow-Howell et al., 2003). Interestingly,
social integration, race, and gender did not moderate the positive effects of volunteering. Neither the number of organizations volunteered in, type of organization, nor perceived benefit of the work to others was found to have an effect (Morrow-Howell et al., 2003). This suggests that engaging volunteering activities may be beneficial for all older adults regardless of social and economic considerations; engaging in volunteer activities has the potential to have a positive effect for all older adults in general.
Chapter 5 – Pilot Study

The self-expansion model provides a framework describing motivational processes that can be expected to occur across the life span. A focus on self-expansion processes emphasizes that older adulthood is (still) a time of discovery rather than a time of decay, a conception that is still implicit in many well-meaning frameworks on aging. Volunteering is an important domain of societal engagement in which older adults are involved, and in which they may have experiences that contribute to self-expansion. As noted earlier, despite the applicability of the self-expansion framework, there are to date no studies focusing on self-expansion processes among older adults, nor within the domain of volunteering. Hence, I considered it prudent to run a pilot study to explore the viability of a larger project, in which I would examine if and how older adults’ activity and experiences in the domain of volunteering would contribute to self-expansion.

Consequently, the first goal of the pilot study was to examine a measure of self-expansion motivation in a population of older adults. As discussed earlier, the self-expansion model posits that people seek ways to expand their "self" so as to increase their sense of potential efficacy by increasing resources such as knowledge, social status, physical strength and health, and community (Aron et al., 2001). Yet, research in the field of self-expansion has narrowly focused on close personal relationships as a way to expand the self with research primarily involving young adult participants (e.g., Aron & Aron, 1986; Aron et al., 1995; Aron & Aron, 1996; Aron et al., 2004; Lewandowski, Aron, Bassis, & Kunak, 2006). Thus, the present study seeks to expand the self-expansion model to a population to whom the theory presumably applies, but who has so
far not been studied.

The second goal of this pilot study was to explore self-expansion motivation across different life domains. Whereas, as discussed, previous self-expansion research was limited to romantic relationships, the pilot study sought to examine expansion in other domains including romantic relationships, including our target domain of volunteering. The hope was generally to broaden the scope of the self-expansion model to include other domains that may provide opportunities for self-expansion such as cognitive complexity (e.g., knowledge).

Much research conducted using the self-expansion model has focused on the results of self-expansion processes (i.e., the outcome of self-expansion). Focusing on interpersonal relationships, research has studied the inclusion of “other” in the self as the result of self-expansion processes. Studies in this domain typically made use of the Inclusion-of-Other-in-the-Self (IOS), a single item, pictorial measure of closeness (Aron & Aron, 1986; Aron et al., 1992). The IOS consists of Venn-like diagrams each representing varying degrees of overlapping circles. Respondents are asked to circle the picture of circles that best describes the nature of their relationship. The IOS has been established as a reliable and valid measure of self-expansion in close personal relationships, which is now widely used in the literature (e.g., Fraley & Aron, 2004; Aron et al., 1992). More recent applications have expanded its usefulness to measuring the closeness of individuals vis-à-vis their community (e.g., Mashek et al., 2007) or vis-à-vis in groups in general (e.g., Tropp & Wright, 2001).

The IOS and its derivatives do provide a measure of the result or outcome of self-
expansion processes, but these measures are limited in a number of ways. First, outcomes of self-expansion processes are certainly not limited to including other individuals or groups into the self. Based on Aron and Aron (1986) the theory specifies that people seek self-expansion in four domains: 1) social and physical influence; 2) cognitive complexity; 3) social and bodily identity; and 4) awareness of position of self in the universe. Whereas expansion of one’s social identity can indeed be captured using the IOS, it is doubtful that amassing physical influence or property can be measured in this way. Likewise, increases in one’s cognitive complexity and understanding of the world do not necessarily involve a specific other, nor is this necessarily the case when individuals experience self-expansion in the domain of spirituality. Thus, whereas the inclusion-of-other(s)-in-the-self may be the best-studied of self-expansion, it is clearly not the only method. Rather, self-expansion measures should be tailored to the domain in which self-expansion is expected.

Second, as explicated by the theory (e.g., Aron et al., 2001), successful self-expansion may yield concrete benefits that, even in the interpersonal domain, cannot be captured with the IOS. Benefits of self-expansion include generally an expansion of psychological resources and, perhaps most palpably, an increased sense of self-efficacy. The emergence of such benefits from self-expansion processes may involve a process by which another is included into the self; however, such outcomes cannot be captured using the IOS.

Third, the IOS measure and its derivative assume a rather stable relationship between the actor and others, such that the actor is always aware what other person or
entity is incorporated into their sense of self. However, I argue that, even in the interpersonal domain, self-expansion processes may occur even in the absence of such a stable other, namely, when participants are engaged in a self-expanding activity, which may be directed at varying individuals. This may be the case with many volunteering opportunities, when volunteers are benefiting others; yet, the specific individuals who receive the benefit may vary. Thus, the use of the IOS scale in studying self-expansion among volunteers may be severely limited.

For the present purpose the most severe limitation is that the IOS does not tap the motivational basis of self-expansion, nor does it address a respondent’s experience that a particular person, group or activity does indeed expand the self. To remedy this shortcoming, Lewandowski and Aron (2002) developed and validate a self-report measure of self-expansion. The self-expansion questionnaire (SEQ) is a 14-item survey focused on the domain of interpersonal relationships. As part of this measure participants are asked to rate items such as, “How much does your partner increase your ability to accomplish new things?” using a Likert-type response scale. This scale has very good psychometric properties (e.g., alpha reliabilities greater than .82) and it been used successfully to tap self-expansion processes in close personal relationships (Lewandowski & Ackerman, 2006; Lewandowski, Aron, Bassis & Kunak, 2006). For instance, Lewandowski, Aron et al. (2006) found that the experience of self-expansion provided by a relationship, as measured by the SEQ, predicted the negative impact of relationship dissolution. Further, Lewandowski and Ackerman (2006) showed that lower levels of self-expansion in a relationship were associated with greater susceptibility to
infidelity in a relationship.

Whereas the usefulness of the SEQ is in line with other self-expansion research the SEQ has thus far been only used to study self-expansion processes within romantic relationships. However, since this instrument mainly measures the extent a particular relationship expands the cognitive resources of the respondent; it is easily adapted to other domains. Therefore, the Self-Expansion Questionnaire (SEQ: Lewandowski & Aron, 2002) serves as a starting point in examining the viability of self-expansion in older adults across different domains. This pilot study adapted the self-report measure of self-expansion to the domains of friendships, spirituality, employment, hobbies and, of course, the target domain of volunteering. As with the original SEQ, for each domain participants answered questions as to what extent their engagement in this domain enhanced their psychological resources and expanded their sense of self. This modified SEQ serves as a direct measure of the process of self-expansion as experienced by research participants.

Predictions

Here, I outline various predictions for the pilot study which are derived based on the previously discussed literature as well as established findings in the psychological literature. Directly following each prediction a discussion of each prediction is provided.

**Prediction #1: The SEQ and all modified SEQ will be correlated.**

The first prediction concerns the use of the self-expansion questionnaire (SEQ; Lewandowski & Aron, 2002), which was used in its original form (pertaining to romantic relationships) as well as in five modified version pertaining to different domains (e.g.,
romantic relationships, close friend relationship, hobbies/recreational interests, spirituality, and employment). Based on the fact that self-expansion in all six domains is assessed using the same instrument, the different versions of the SEQ are expected to be positively correlated. Though such a method effect can be expected, it is important that the six different scales should not be redundant with each other and that substantial variation across domains and across individuals is likely to be observed.

**Prediction #2: Mastery and self-expansion have a positive relationship and are highly correlated.**

A main concern of this pilot study was examining the construct validity of the modified SEQ, such that the various version of the SEQ should exhibit convergent validity with variables that theoretically should be related to self-expansion. Conversely, it should exhibit discriminant validity in regards to variables that theoretically should not be related to self-expansion.

A central element of this examination of convergent validity was the prediction that self-expansion be related to personal control over events in one’s life (i.e., mastery, Pearlin & Schooler, 1978). Mastery should be related to self-expansion since pursuit of self-expansion is motivated by increasing potential self-efficacy. Therefore, to the extent that self-expansion occurs, it should be associated with concomitant increase in one’s sense of mastery.

**Prediction #3: Positive attitudes towards ones’ own aging (PGC; Lawton, 2003) are related to self-expansion.**

It is established that positive as well as negative attitudes toward one’s own aging influence behavior in older adults and affect perceptions of changes taking place in one’s
life (Lawton, 2003). Conceivably the more positive one is about one’s aging the more likely one will continue to self-expand, assuming attempts at self-expansion are not met with failure or punishment. If an older adult experiences continued failure or is stigmatized for attempting to engage in a self-expanding experiences, it is likely that the older individual accept the notion that aging and being older is a time of decline. Whether one succeeds or is thwarted in one’s self-expansion, the upshot should be a correlation between one’s attitudes towards aging and self-expansion.

**Prediction #4: Self-expansion is correlated with novelty seeking.**

Another prediction with regard to the correlates of the SEQ relates to novelty seeking (Arnett, 1994). Arguably, self-expansion includes openness to the kinds of new experiences that subsequently expand the self. This begs the question whether self-expansion does not in itself imply an active search for new experiences in one’s environment. To test whether such a tendency is related to individual difference in self-expansion, I relied on a measure of novelty seeking. Novelty seeking can be conceptualized as an aspect of sensation seeking, which reflects individuals’ preference for getting a thrill out of a situation or experience. The assumption that novelty seeking is related to one’s motivation to self-expand is supported by the observation that at the heart of both constructs is the idea that novel experiences are affectively positive, though novelty seeking focuses on the active search for such experiences, whereas self-expansion motivation focus more on the psychological consequences of novel experiences. To date, there exist no data on the convergence of the SEQ and novelty seeking; however, as this brief analysis shows, it is plausible to expect a positive
correlation between novelty seeking and self-expansion as measured by the SEQ.

**Prediction #5: Personal need for structure (PNS; Neuberg & Newsom, 1993) is inversely linked to levels of self-expansion.**

Next, I explored the discriminate validity of the modified SEQ focusing on the notion of cognitive flexibility and rigidity. Personal need for structure (PNS; Neuberg & Newsom, 1993) reflects an individual’s preference for keeping one’s world structured and predictable, which is thought to influence how an individual interacts, understands, and experiences life. PNS has been found to relate to stereotyping, as well as the inflexibility of judgments and beliefs (e.g., Bar-Tal & Guinote, 2002; Schaller, Boyd, Yohannes & O’Brien, 1995). A common stereotype about becoming older is that an individual becomes more rigid, though this assumption has no basis in reality (Hess, 2001). If self-expansion requires a person to be willing to face uncertain and unstructured situations, it has to be expected that those who are less willing to enter such situations will have fewer opportunities to self-expand. Further, because novel experiences often challenge existing beliefs, it may be plausible to assume that those who are more cognitively flexible are more likely to experience self-expansion given exposure to similar situations. This leads to the prediction of an inverse correlation of personal need for structure and self-expansion.

**Prediction #6: There is no correlation between personality traits and self-expansion.**

An additional prediction in this pilot study concerned the relationship between personality traits such as extraversion and openness to self-expansion. Given that self-expansion is conceived of as a highly general process, it might seem surprising to assume
that it should only selectively occur for individuals with certain personality
c Characteristics, e.g., those high in novelty seeking or those low in PNS. Indeed, this is not
what the self-expansion model predicts; rather, with self-expansion being a core
motivation for all humans one has to expect that personality traits should be largely
unrelated to self-expansion processes. This would lead to the prediction of a null
correlation between personality as measured, for instance, by the Big Five (Neuroticism,
Extraversion, Openness, Conscientiousness, Agreeableness; e.g., Gosling, Rentfrow, &
Swan, Jr., 2003). Note that these traits are rather broad in their definition, and that I am
predicting that self-expansion is indeed unrelated to these broader aspects of personality.
However, this does not preclude the possibility that self-expansion might be related to
much more specific aspects of personality, such as novelty seeking.

Prediction #7: Volunteering functions are highly related to self-expansion in volunteers.

Additional predictions concerned specific versions of the SEQ. According to
Clary and Snyder (1999) individuals engage in volunteering activities in service to six
functions: values (e.g., expression of personal values), understanding (e.g., learn more
about the world); enhancement (e.g., seeking to grow and develop psychologically);
career (e.g., seeking job skills); social function (e.g., strengthen social relationships); or
protective (e.g., reduce guilt). I argue that the modified SEQ-Volunteering should be
highly correlated to Clary and Snyder’s (1999) well established measure of functions of
volunteering. To the extent that individuals are engaging in an activity that furthers their
own sense of self, it is likely that they are experiencing a sense of self-expansion. This is
most likely the case, when individuals are involved in an activity that satisfies their
psychological needs. However, for self-expansion to occur the fit between psychological need and its fulfillment is critical, though it is not critical what form this fit takes. In other words, because volunteering may fulfill a variety of very different functions to the individual, the SEQ-Volunteering should be correlated with all dimensions of Clary et al.’s (1998) measure, because high scores always reflect that the activity fulfills a psychological function. Self-expansion occurs while volunteering regardless of the specific function because all functions are affectively positive and increase potential self-efficacy.

Method

Participants

A total of 131 participants (75% female) were recruited from the Osher Lifelong Learning Institute (OLLI), Extended Studies, University of Nevada, Reno and the Promenade on the River, an adult residential apartment complex in Reno, NV. Respondents’ age ranged from 50 years to 96 years. Respondents were predominately Caucasian, with 130 respondents indicating that they were Caucasian (95%), 2 (1.5%) Native American, and 1 (.8%) African American. Concerning marital status, 40% were currently married, 15% were divorced, 39% were widowed, and 2% were never married. Participants reported high levels of education; 30 (29%) had a graduate degree, 42 (33%) had a bachelor’s degree, 8 (6%) had an associate’s degree, 25 (19.2%) had some college, 11 (8.5%) had a high school degree or GED, with only 1 (.8%) reporting some high school. Based on the education level a majority of the sample were upper-middle class.
Procedure

Participants were recruited from the two sites in Reno, Nevada. Recruitment at OLLI took place in a wide range of classes offered by various OLLI instructors. Participants were informed that the project was focused on seniors’ activities and satisfaction with those activities. Each participant was offered a research packet, which included a stamped self-addressed lottery ticket to enter a drawing to win one of six $50.00 prizes for consideration of participating in the study. Participants could in the privacy of their own home whether to participate in the study and the lottery, just the lottery, or just the study. Recruitment at the Promenade consisted of placing a packet into each of the mailboxes in the mailroom of the apartment complex. Participation in this study was anonymous therefore; it is unknown how many people from each location participated. A total of one hundred and fifty survey packets were distributed, and 131 (87%) completed surveys were returned by mail.

Measures

Participants responded to all measures in questionnaire that was titled “Senior’s Activity Satisfaction Survey” or SASSY.

Self-expansion.

The 14-item Self-Expansion Questionnaire (SEQ; Lewandowski & Aron, 2002) was used to measure self-expansion in close personal (romantic) relationships ($\alpha = .95$). The SEQ was modified to measures five other domains in which self-expansion has been theoretically said to occur; close friendship (SEQ-Friends; $\alpha = .95$), hobbies/recreational interests (SEQ-Hobbies; $\alpha = .95$), spirituality (SEQ-Spirituality; $\alpha = .85$), volunteering
(SEQ-Volunteering; $\alpha = .96$), and employment (SEQ-Employment; $\alpha = .95$). Participants were instructed to skip sections that were not applicable to them. It is possible that some participants did not answer any of the questions related to theoretically stated domains of self-expansion or answered in one or more domains of self-expansion.

**Volunteer motivation.**

A subscale of the Volunteer Functions Inventory (VFI; Clary et al., 1998) was used to measure participants’ motivation to engage in volunteer activities. The 30-item subscale, Reasons for Volunteering, is based on a functional approach to volunteers’ motivation. There are six factors in the RV: protective function ($\alpha = .83$) values function ($\alpha = .81$), understanding function ($\alpha = .86$), enhancement function ($\alpha = .84$), social function ($\alpha = .83$), and career function ($\alpha = .89$).

**Personality.**

The Ten Item Personality Inventory (TIPI) was used to measure the Big-Five personality domains of extraversion ($\alpha = .68$), agreeableness ($\alpha = .49$), conscientiousness ($\alpha = .50$), emotional stability ($\alpha = .73$), and openness to experience ($\alpha = .45$) (Gosling et al., 2003).

**Self-efficacy.**

The 7-item Mastery Scale ($\alpha = .76$) was used to measure self-efficacy specifically in older adult populations (Pearlin & Schooler, 1978).

**Novelty seeking.**

The novelty subscale of the Arnett Inventory of Sensation Seeking was used to

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3 The alpha reliabilities of these subscales will appear to be low; however, the reader must keep in mind that each scale is composed of only two items. Because internal consistency of a scale is positively related to the number of items on a scale (cf. Spearman-Brown formula), the present subscales are still acceptable.
measure level of novelty (AISS; Arnett, 1994). Because two of the ten items were uncorrelated with the other items, we only used eight items of the original scale (α = .70).

**Life satisfaction/Attitudes toward one’s own aging.**

The 17-item Philadelphia Geriatric Center Morale Scale (α = .80) was used as a global measure of life satisfaction in older adults (PGCMS; Lawton, 1975). This scale consisted of three subscales, a six-item agitation scale (α = .66), a five-item attitude toward own aging scale (α = .74), and a five-item lonely dissatisfaction scale (α = .64). Participants responded to each item with agree (0) or disagree (1). Responses were coded such that higher values indicate more favorable outcomes, that is, better morale, less agitation, more positive outlook on one’s own aging and less dissatisfaction.

**Need for structure.**

The 12-item Personal Need for Structure Scale (α = .71) was used to measure need for structure in everyday life (PNS; Neuberg & Newsom, 1993).

**Demographics.**

A total of twenty-two questions addressed respondents’ gender, racial identity, religious affiliation, political orientation, importance of religion, marital status, level of education, self-rated health, household composition, and participation at OLLI were used to gather demographic information.

**Results**

Of the 131 participants in this study 89 reported that they engaged in volunteering activities, 58 were involved in romantic relationships, 76 were in friendships, 116

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4 A sixth item pertaining to the lonely dissatisfaction scale was eliminated as it did not cohere with the other 5 items.
engaged in pursuit of interests/hobbies, 78 were spiritual, and 14 were currently employed. Because comparatively few respondents were currently employed, we did not analyze the SEQ-Employment. Table 1 summarizes the means, standard deviations and Cronbach’s alphas for all versions of the SEQ, as well as their correlations. Alpha coefficients across all SEQ domains measured were greater than .85 supporting the soundness of the measures. SEQ scores across domains were all greater than 3.23 (on a scale of 1 to 5); thus, average ratings above the scale mean suggest that at least some level of self-expansion did occur.

**Prediction #1** concerned the relationship between different SEQ versions. As is apparent in Table 1, all versions were significantly correlated with each other. To obtain a more comprehensive estimate of the degree of overlap between all SEQ versions, I conducted a factor analysis to estimate the overall shared variance. This analysis indicated that 50% of all variance was shared, as evidenced in the emergence of one dominant factor. This confirmed my first prediction that, despite being used to assess self-expansion in different domains, different versions of the SEQ would be correlated.

**Prediction #2** assumed that SEQ variables would be linked to higher levels of mastery. Indeed, mastery was related to self-expansion concerning participants’ interests and hobbies, $r(116) = .19, p = .038$, and, at a weaker level, related to self-expansion concerning romantic relationships, $r(58) = .22, p = .096$ (see Table 2). However, other than predicted, none of the other SEQ measures was correlated with mastery, thus providing only partial support for Prediction #2.

Further exploratory analyses were conducted to examine to what extent gender
might moderate these relationships. The rationale for this comes from the finding that traditional female roles tend to be more oriented toward relationship and communion, whereas traditional male gender roles emphasize agency and control (e.g., Bakan, 1966; Cross & Madson, 1997). Analyses showed that the above association between mastery and self-expansion concerning hobbies, and concerning romantic relationships only was present for women, \( r(90) = .28, p = .008 \) and \( r(35) = .39, p = .02 \), but not men, \( r(24) = .07, p = .76 \) and \( r(22) = .11, p = .62 \), respectively. Similarly, for women we found that mastery was also at least somewhat associated with self-expansion in the volunteering domain, \( r(70) = .21, p = .081 \), whereas the corresponding coefficient for men was lower and far from significant, \( r(18) = .13, p = .61 \). The perhaps most dramatic difference emerge with regard to mastery and self-expansion in the spiritual domain, where for women there was a nonsignificant, but positive association \( r(59) = .11, p = .40 \), whereas there was a marginally significant, but negative correlation for men, \( r(18) = -.42, p = .08 \).

Whereas it was unexpected that positive correlations between mastery and self-expansion would only occur for women, the fact that men’s mastery is negatively linked to self-expansion in the spiritual domain suggests that traditional gender roles regarding spirituality are being reflected in the data.

**Prediction #3** concerned the relationship between positive attitudes toward one’s own aging and self-expansion. As also shown in Table 2, there was a significant relationship between attitudes toward one’s own aging and self-expansion in romantic relationships, \( r(58) = .29, p = .006 \). All other self-expansion measures were also positively related to attitudes toward one’s own aging; however, only with self-expansion
in volunteering, \( r(89) = .07, p = .12 \), as well as self-expansion regarding hobbies did the coefficient even approach statistical significance, \( r(116) = .15, p = .11 \). Overall, this finding provides limited support for the prediction that self-expansion is related to a more positive outlook on one’s own age as well as the process of aging.

Separate exploratory analyses for men and women revealed that there was about the same link between attitudes toward one’s own aging and self-expansion in romantic relationships, men \( r(22) = .38, p = .078 \), women \( r(35) = .33, p = .056 \). However, only for men was there a pronounced and significant relationship between self-expansion in volunteering and attitudes toward one’s own aging, \( r(18) = .48, p = .04 \), where the corresponding correlation for women was substantially weaker, \( r(70) = .13, p = .28 \). Conversely, women’s outlook on their own aging was more strongly associated with their self-expansion in the spiritual domain, \( r(59) = .28, p = .03 \), whereas this relationship was nonsignificant and negative for men, \( r(18) = -.19, p = .45 \). The fact that men’s outlook on aging is more closely associated with an activity than women’s, and that women’s outlook is linked more closely to their spirituality could be seen as being consistent with the often-observed gender role differentiation mentioned above.

**Prediction #4** focused on the possible association between individual differences in novelty seeking and self-expansion motivation. As shown in Table 2, none of the SEQ measures were related to Arnett’s (1994) novelty scale. Although this disconfirms my fourth prediction, the finding highlights that novelty seeking and self-expansion motivation are analytically and empirically distinct, and that individuals who self-expand through novel experiences are not necessarily actively searching for such experiences.
Further, older adults may prefer to self-expand by engaging in experiences that are novel and satisfying within a familiar domain rather than search for seek novelty in entirely unfamiliar territory.

Again, exploratory analyses showed that self-expansion with regard to hobbies and volunteering was associated with novelty seeking among women, $r(90) = .23, p = .03$ and $r(70) = .27, p = .03$, but not among men, both $p > .83$.

**Prediction #5** stated that there would be a negative correlation between PNS and self-expansion based on the assumption that, if self-expansion is contingent on cognitive flexibility, individuals who prefer structure would experience less self-expansion. However, none of the versions of the SEQ was significantly related to PNS. With PNS being related to novelty seeking, $r = -.31, p = .001$, this finding corroborates the observation that self-expansion is a construct that is distinct from other personality processes.

Again, exploratory analyses revealed gender differences such that PNS was associated with men’s self-expansion with regard to hobbies and spirituality, $r(24) = .40, p = .055$, and $r(18) = -.58, p = .011$, with the corresponding correlations for women being nonsignificant $r(90) = .04, p = .72$ and $r(59) = -.17, p = .20$, respectively.

**Prediction #6** said that self-expansion motivation should generally be unrelated to the broad personality dimensions that make up the Big Five. In accordance with this prediction, almost none of the five dimensions extraversion, agreeableness, conscientiousness, emotional stability and openness to experience were found to be correlated with any of the SEQ measures. The only exception was agreeableness, which
was significantly related to SEQ-Friend, \( r = .25, p = .034 \), and to SEQ-Spirituality, \( r = .40, p = .001 \). Whereas this result does suggest an involvement of agreeableness in the self-expansion motivation in some domains, note that only two of 25 possible correlations (five Big Five dimensions times five SEQ measures) were significant. This hardly supports a close link between self-expansion and personality, which is consistent with Aron and Aron (1986)’s notion that self-expansion is a universal motivation experienced by all people.

However, exploratory gender analyses showed that the link between agreeableness and SEQ-Friend was driven primarily by men, \( r(12) = .82, p < .001 \), not women \( r(63) = .14, p = .30 \). Conversely, the association between agreeableness and SEQ-Spirituality was mainly present for women, \( r(56) = .35, p = .01 \), though the correlation for men was equally large, if nonsignificant, \( r(18) = .36, p = .14 \).

As expected based on Prediction #7, the SEQ-Volunteering measure was significantly related to all six factors of the volunteer function inventory (VFI), all \( p < .01 \) (see Table 3). This finding supports the notion that, although the functional aspect of volunteering differs, self-expansion occurs regardless of the specific purpose that participating in volunteering activities serves the individual.

Again, exploratory analyses were conducted to identify gender-specific patterns of correlations. As summarized in Table 3, correlation coefficients were comparable in size for the association of most VFI dimensions and self-expansion in the volunteering domain. However, noticeably, the link between VFI social, which concerns relationships with others, and self-expansion in volunteering was markedly stronger for women, \( r(61) \)
\( r(16) = .22, p = .41 \). Likewise, for women the association between self-expansion in the volunteering domain and VFI protect, \( r(62) = .37, p = .003 \), which concerns protecting the ego or reduction of guilt, was much stronger than for men, \( r(16) = .02, p = .94 \).

**Discussion**

The self report measure of self-expansion (SEQ; Lewandowski & Aron, 2002) worked successfully with this population of 50 and older adults. Findings of this pilot study support general viability of the SEQ variables. Convergence of self-expansion in different domains was established, yet SEQ variables were also found to be distinct as evidenced by good reliabilities and strong correlations with modified versions of the SEQ.

Some relationships with external variables were found to be as predicted, but others were absent. Data from this pilot study did not establish a clear correlation with mastery; the only statistically significant correlation was between SEQ-Hobbies and mastery. However, additional exploratory analysis examining the possible role of gender found significant relationships of mastery to SEQ-Hobbies and SEQ-Romantic and near significant relationship for mastery and SEQ-Volunteering for women only. Why women only would have significant correlations with some of the SEQ variables and mastery is unclear. The Pearlin and Schooler (1978) measure of mastery is a popular and widely used measure of mastery specifically in older adult populations; therefore, findings from this measure suggest that self-expansion and mastery are not highly related to one another. Whereas this finding does not strongly support the validity of the SEQ scale in
its different versions, it also does not detract from the validity of the SEQ. One may argue
that it is not forcibly necessary in a cross-sectional data set that SEQ be correlated with
mastery. Specifically, since the SEQ measures self-expansion motivation, the building of
self-efficacy, one can argue that SEQ should be better at predicting future self-
efficacy/mastery than concurrent mastery.

I found greater support for my predictions with regard to attitudes toward one’s
own aging and self-expansion. All correlations pointed in the same, expected direction,
with self-expansion in romantic relationship being of significance. Critically, there was a
positive link between attitudes toward one’s own aging and the most established SEQ
measure used here, which tapped self-expansion in the romantic domain. However,
gender played an important role in establishing a significant relationship for men between
SEQ-Volunteering and attitude toward one’s own aging but not for women; and SEQ-
Spirituality and attitudes toward one’s own aging being significant for women only. In
fact, the relationship between men and SEQ-Spirituality was negative. With regard to the
proposed study, the significant and reliable relationship between attitudes toward one’s
own aging and volunteering for men is of great interest. To the extent that male older
adults experienced self-expansion through any volunteering activity, they had a more
favorable outlook on their own stage in life; to the extent that female older adults
experienced self-expansion through spirituality they had a more favorable outlook. This
supports a major assumption derived from the application of the self-expansion model to
older adults’ engagement in the volunteering domain and alludes to the possibility that
gender may play an important role in self-expansion.
The finding of no correlation between SEQ and novelty seeking and PNS as well as no clear patterns with regard to correlations with Big 5 suggests that self-expansion motivation is a very distinct construct that is not tapped by existing measures of personality. Put differently, these correlations provide evidence of the discriminate validity of my self-expansion measures. However, gender differences found in novelty seeking and PNS suggest that gender effects in self-expansion must be further explored.

Most central to the other work reported in this dissertation is the clear relationship between the subjective function of volunteering activity to the individual and self-expansion in the volunteering domain along with the noteworthy gender difference. This pilot research has demonstrated that SEQ-Volunteering is meaningfully related to the established measure of functions of volunteering (Clary et al., 1998). Further, a general correlation with all functions/dimensions showed that SEQ is a general motivation, not specific to a particular purpose. Many types of activity and engagement were supported and related to self-expansion.

This pilot study showed that (a) self-expansion can be reliably measured in a population of older adults and across different domains; (b) there seem to be some commonality between self-expansion experiences across domains, though there is also some self-expansion that is clearly domain specific; (c) across domains, the self-expansion measure shows good convergent and divergent validity regarding theoretically related measures; (d) gender potentially is a significant influence in self-expansion. The Self-Expansion Questionnaire (Lewandowski & Aron, 2002), modified for the present purposes, was found to be a reliable measure of self-expansion in adults aged 50 to 96.
years. Results provide evidence that self-expansion continues to occur well into late adulthood. Further, older adults in this sample participated in a variety of self-expansion domains reflecting a more complex strategy for self-expansion with age. Aging may provide more opportunities for using multiple strategies for self-expansion. However, self-expansion is based on the assumption of change over time, therefore this one time snap shot of self-expansion could not capture changes in self-expansion.

This pilot study ties in with existing research in the literature on self-expansion and close personal relationships as described in chapter 2 of this proposal (e.g., Aron & Aron, 1996, 1997; Aron et al., 2001, 2004) and the literature on successful-aging (Rowe & Kahn, 1987, 1997, 1998), productive aging (Bass & Caro, 2001), and volunteering (Clary et al., 1998) as described in Chapter 3. Clearly, participation in volunteering activities supports active engagement in life as promoted in successful aging theory as well as remaining productive as promoted by productive aging theory by providing (unpaid) services or products such as making quilts for newborns. This pilot study findings support these premises as evidenced by the relationships between SEQ-Volunteering and attitudes towards one’s aging and the high correlation between SEQ-Volunteering and the volunteer function inventory (VFI).

**Limitations**

This pilot study sought to establish the feasibility of recruitment of older adults and exploring the viability and reliability of modified self-expansion measures. Although validation was in some aspects week (e.g., convergence of mastery and modified SEQ) there was strong evidence with regard to the convergent validity and as well as
discriminatory validity.

However, this study has a number of shortcomings. As a result of an accidental omission of a relevant item, this study did not measure participant’s age. However, minimum age requirements at both of my sampling locations (the Promenade and (OLLI), are for members to be at least 50 years of age. Further, both organizations reported that members’ age ranged from 50 to 96 years. This makes it very unlikely that younger participants joined in the study; however, it did not allow us to run analyses these examined the influence of age in greater detail.

Participants in this study were part of a convenience sample. Recruitment of participants took place at OLLI, which is part of the University of Nevada’s extended study program and at the Promenade, a luxurious older adult living condominium complex. Older adults at these locations are more likely to have greater resources and to be of higher socio-economic status than adults aged 50+ in the general population. Further, educational levels of our participants were extremely high with all but one participant reporting having earned at least a high school diploma or equivalent; 72% had at least bachelor’s degree. In brief, the generalizability of the present findings to other populations is unclear.

With regard to the volunteering, the domain of interest of my main research, this study included a substantial group of volunteers ($n = 89$), but I did not learn much about participants’ type or amount of volunteering activity. Whereas this study helped shape and consolidate my interest in studying self-expansion in volunteers, many important measures regarding volunteering were not present in this pilot study.
However, perhaps the biggest drawback of this pilot study was the fact that it used a “single-shot” cross-sectional design. Because self-expansion is arguably a future oriented process, this present study did not capture this temporal dynamic. To address this important issue, I conducted a longitudinal study, which is reported herein.
Chapter 6 – Study Overview and Hypotheses

Self-expansion and Aging Theories

As argued in Chapter 4, volunteering is a topic that is most relevant to society as the boomers enter into retirement and the budgets of the state are depleted, thus putting more responsibility on volunteers to provide important social services. My literature review established that contemporary theories of aging regard volunteering as an activity that does contribute to one’s successful, productive, and healthy aging. Since my overarching goal is to demonstrate the applicability of the self-expansion approach to aging, this research project focuses on the role of self-expansion in volunteering among older adults. Aside from providing a theoretical alternative to existing models of aging, this research aims to (1) better understand volunteering among older adults, (2) explore what draws them into it and keeps them with it, and (3) possible consequences and benefits that older adults glean from volunteering. Obtaining answers to these questions is important if maintaining a large group of volunteers with the potential of benefiting society is valued.

Self-expansion as a Dynamic Process

Self-expansion is by definition a dynamic process through which individuals increase potential self-efficacy, experience self-expansion, and then integrate the experience of self-expansion into the self-concept. This process implies change; change implies a dynamic over time. This dynamic was not captured by the pilot study described in Chapter 5 as it only used a cross-sectional design. Therefore, this study uses a longitudinal design, which measures self-expansion and its moderators and predictors...
across two points in time. The goal is to demonstrate the evolving nature of self-expansion in the volunteering domain, similar to the work done by Aron et al. (1995) and by Aron and Fraley (1999) which demonstrated evolving self-expansion in romantic relationships. Both of these studies took place over approximately three months.

**Correlates of Self-expansion**

This study tracks theoretically important correlates of self-expansion that were already discussed in Chapter 5, but also expands the scope of outcome variables. Consistent with the pilot study, this study observes the association between self-expansion and mastery. Though the relationship was only weak in my pilot study, re-examination of this relationship will be conducted using a slightly different population of older adults. More importantly, the extent to which mastery at Time 2 is predicted at Time 1 will be examined which is consistent with the predictions that self-expansion is a precursor to *future* self-efficacy.

**Self-expansion, Attitudes, Morale, and Health**

Consistent with the pilot study, replication of the generally positive correlation between self-expansion and attitudes toward one’s own aging will be explored. The extent to which self-expansion effects emerge with regard to other dimensions of the PGCM scale tapping psychological well-being, (i.e., agitation and lonely dissatisfaction) will also be explored. Researchers have linked psychological well-being to physical well-being (e.g., Ryff & Singer, 1998); therefore, self-expansion as predictor of physical health will be investigated.
Self-expansion and Volunteering Identity and Commitment

Focusing specifically on participants’ volunteering activity, research has shown that volunteers are more likely to continue volunteering if they identify with their role as a volunteer (e.g., Charng, Piliavin, & Callero, 1988; Chacon et al., 2007; Grube & Piliavin, 2000). Volunteering is an important arena in which self-expansion can occur; greater levels of self-expansion are expected to be predictive of greater role identity and commitment as a volunteer, especially in longitudinal perspective.

Self-expansion and Functions of Volunteering

Consistent with the pilot study, replication of the association between self-expansion and the volunteer functions as assessed by the Clary et al. (1998) volunteer functions inventory (VFI) will be explored. A priori the relationship between self-expansion and the different dimensions of the VIF is not expected to vary much. Regardless of their specific motives, actors become engaged in volunteering, and volunteering promotes self-expansion. With self-expansion being a particular psychological need, arguably it is only of secondary relevance what the specific function the volunteering serves to the actor. And to the extent that the activity does indeed serve a psychological function to the individual, self-expansion should predict increases in the function.

Moderators of Self-expansion

History as volunteer.

Long standing volunteers are likely to have formed a role identity as a volunteer that is well-formed as compared to shorter standing volunteers (e.g., Grube & Piliavin,
2000). That is, volunteers who have been involved in the activity of volunteering should have a more crystallized self-concept; a more well-formed identity that is quite constant over time, and less susceptible to short-term changes. However, new volunteers, especially those who have not been engaged in the identity for very long, are still undergoing the process of identity formation as a volunteer, that is, they are still in the process of identity formation. To the extent that the volunteers continue in the activity, it is likely that they also will form a crystallized identity. If not, then, all things being equal, one can anticipate that the people drop out. Therefore, an individual’s overall history as a volunteer should moderate self-expansion.

**Hours volunteered per month.**

The amount of hours that a participant spends volunteering during a month should moderate self-expansion. Specifically, the greater the involvement or psychological investment in an activity, as measured through the time spent in the activity, might mean the attention to this aspect of one’s life (i.e. volunteering) is increased. The greater time investment increases the opportunity or the need to negotiate the relationship between self and activity. However, it is possible that time investment reflects a greater psychological significance of the activity to the participant. Regardless, the amount of time a participant spends engaged in a volunteering activity should influence self-expansion.

**Importance of religion.**

The positive relationship between religion and volunteering is well established (e.g., Ruiter & DeGraaf, 2006). Research has found that how an individual perceives the
importance of religion in their life may be more influential than time spent in church or the type of religion followed (Ruiter & De Graaf, 2006). Participants who believe religion is important may be more inclined to volunteer than those who are not religious. Therefore, importance of religion will be explored as a possible predictor of volunteering.

**Cognitive openness.**

In this expanded longitudinal design of the present study particular attention will be given to the possible moderators or self-expansion effects. Although in the pilot study there was very little evidence of an association between self-expansion and personality measures of cognitive flexibility (whether measures as PNS or as openness in TIPI) it is possible that effects for cognitive flexibility only become evident over time when participants are involved in ongoing, self-expanding experiences. Hence, the present research investigates the issue again, arguing that personality dispositions suggesting openness to new experiences will facilitate self-expansion.

**Curiosity and exploration.**

Arnett’s (1994) novelty scale, used in the pilot study, was replaced with a measure of curiosity (CEI; Kashdan et al., 2004), which might tap more closely the tendency among self-expansion motivated individuals to seek out opportunities to expand. The CEI measure has two dimensions; exploration (i.e., striving for novelty and challenge) and adsorption (full engagement in an activity). Although in the pilot study the Arnett (1994) novelty scale was not consistently correlated with self-expansion, there remains a possibility that the two notions are related. The notion of curiosity conceived of as a positive emotional-motivational notion related novelty and challenge; self-expansion
is posited to occur when an individual experiences something novel and exciting.

Kashdan et al. (2004) maintain that curiosity is a key factor in personal growth given that those who are curious are able to find novel and challenging information which ultimately will lead to integration of those experiences either by assimilation or accommodation. According to Giambra, Camp, and Grodsky (1992) and contrary to popular belief, curiosity remains intact throughout the lifespan; older adults simply need the opportunity to learn or engage in curiosities in line with the older adults’ preferences. Swan and Carmelli (1996) support this notion in their research on curiosity and mortality in a 5-year follow-up study of 1,033 older women (M age – 68.6 years) which found that levels of curiosity could predict longevity. Therefore, curiosity should be correlated to self-expansion.

**Adult attachment.**

Two aspects of personality that might qualify self-expansion processes: adult attachment (the Adult Attachment Scale [AAS]; Collins & Reed, 1990) and future time perspective (Lang & Carstensen, 1996) were also explored. According to Aron and Aron (2006), the “secure base” notion of attachment theory as postulated by Bowlby (1969) assumes an exploration motivation that could be described as “self-expansion” motivation. Bowlby proposed that there are three attachment styles developed very early in life between and individual and their primary caregiver: (1) secure-base; (2) avoidant; and (3) anxious-ambivalent.

Aron and Aron (2006) argued that an individual who has a secure-base is confident of support for exploration thereby supported in efforts to self-expand. Whereas
an avoidant individual would not perceive intimate others as a source for self-expansion; therefore, they would most likely seek self-expansion outside of the domain of close personal relations. While an anxious-ambivalent individual would also perceive intimate others as an unreliable source for self-expansion however, would continually try to develop a secure-base attachment within an intimate relationship in an effort to engage in self-expansion (e.g., Aron & Aron, 2006). In a study on unrequited love, Aron et al. (1998) found the intensity of unrequited love to be related to attachment style. For instance, those who were avoidant tended to find unrequited love more desirable, that is, they were more comfortable desiring to be in a relationship rather than actually being in a relationship. Additionally, Aron et al. (1998) theorized that inclusion-of-other-in-self would be more comfortable for securely attached individuals whereas self-expansion in domains other than close personal relationships would be more likely for avoidant individuals; and anxiously attached individuals would be the most motivated to expand through inclusion-of-other. Overall, the authors’ findings supported these predictions. Aron and Aron (2006) suggest that a secure attachment is at least initially more important than environmental opportunities to self-expand. However, other interests of an individual such as art or science may also provide opportunities for self-expansion beyond self-expansion through close relationships.

Given the findings by Aron et al. (1998) and subsequent notions of attachment and self-expansion (Aron & Aron, 2006), the present study seeks to explore to what extent attachment style moderates self-expansion in the volunteering domain. Specifically, I speculate that many types of volunteerism will provide an opportunity self-
expand to securely attached individuals as well as avoidantly attached individuals but less so for anxiously attached individuals. This notion is, first, based on the idea that most volunteerism serves specific others or occurs as a member of a collective. Therefore, the activity provides the opportunity to volunteers to form personal relationships and, thus, permit self-expansion among those who are securely attached. However, self-expansion may not occur at the same rate for anxiously attached individuals because volunteering may be too broad a domain and may not provide opportunities for the development of personal relationships. Finally, individuals might also focus on the transactional aspects of volunteerism, which includes the completion of tasks, learning skills or even the advancement of personal interests, yet without being centered on interpersonal relationships. Such a perspective on their volunteer activity might provide avoidantly attached individuals with a self-expansion opportunity that does not focus on the development of personal relationships.

**Future time perspective.**

Future time perspective (Lang & Carstensen, 2002; Zimbardo & Boyd, 1999) offers another plausible moderator of self-expansion. According to Carstensen’s (1993) socioemotional selectivity theory the perception of how much time is left in life affects individuals’ motivation and mindset. Those who see their life as leaving them ample time to live tend to focus on goals such as acquiring knowledge, engagement in novel experiences and other new and explorative endeavors. However, those who see their life in the present without much future time available tend to focus on emotionally rewarding experiences with close others (e.g., Carstensen, 1993; Carstensen et al., 1999). The
perception of time is viewed as a critical aspect of motivation. Simply put, individuals who view time as open-ended tend to seek knowledge and adventure; individuals who see time as limited seek emotional goals (e.g., Carstensen et al., 1999).

An intriguing aspect of this theory is that time perspective, that is, psychological time, predicts the type of goal an individual chooses rather than the actual chronological age of the individual. Although it may be more likely for an individual aged 95 to see time as limited, an individual who is fighting childhood cancer at the age of 11 may see time as even more limited. Whether older adults’ time perspective influences self-expansion in the domain of volunteering and if this influence is predictive of the function that volunteering serves for an individual is of interest. Theoretically, individuals who see time as finite should be engaging in self-expansion primarily in close relationships. On the other hand, individuals who perceive time as infinite may be engaging in self-expansion in a variety of ways, including volunteering.

**Predictions**

In the following I outline my predictions for the proposed study which focuses on the process aspect of self-expansion while distinguishing whether my predictions concern cross-sectional relationship between the assessed data, or whether I examine changes over time. Measurement of the process of self-expansion at Time 1 and at Time 2 should yield information regarding whether the process of self-expansion is ongoing. Evidence that the process of self-expansion is occurring infers that a participant is experiencing self-expansion rather than an increase of “expandedness.”

Two of my five dependent variables, role-identity and commitment are central to
volunteering, that is they are volunteer specific outcome variables. The remaining three, mastery, attitudes toward own aging, and morale are more general outcome variables. Therefore, I expect to find a stronger effect of self-expansion in levels of role-identity and commitment especially since all of the participants are actively involved in volunteering.

The reader may recall in earlier description of the self-expansion model that the model has two phases: an individual experiences a self-expanding experience and then integrate the experience into the self. SEM is both a process (the experiencing and integrating a self-expanding experience) and an outcome (“expandedness”). Therefore, levels of self-“expandedness” which were measured in the Supplemental Survey are not included in these hypotheses.

**Hypothesis: Correlations (cross-sectional).**

1. SEQ-Volunteering will correlate positively with measures of attitudes toward one’s own aging, mastery, commitment, role identity, volunteer functions, future time perspective, curiosity and exploration, attachment, personal need for structure, and subjective health at Time 1 and at Time 2.

**Hypotheses: Longitudinal.**

2. Levels of mastery, attitudes towards one’s own aging, role identity and commitment will increase over time; levels of agitation and lonely dissatisfaction will decrease over time.

3. Personality (TIPI), PNS, attachment styles, dispositional levels of curiosity (i.e., exploration and absorption), and future time perspective will not change over
time.

4. Time 1 SEQ-Volunteering predicts Time 2 mastery, morale, attitudes toward one’s own aging, commitment, and role identity. This relationship should hold when Time 1 levels are controlled, such that Time 1 SEQ-Volunteering predicts changes in mastery, attitudes toward one’s own aging, commitment, and role identity over time.

5. The impact of SEQ-Volunteering on volunteering specific outcome variables (role identity, commitment) and general outcome variables (mastery, morale, attitudes) should be greater in the early stages of one’s engagement in the activity (i.e., history of volunteering) as well as in greater hours volunteered per month.

**Hypotheses: Longitudinal moderators of changes in SEQ-Volunteering (SEQ-V).**

6. SEQ-Volunteering increases over time for individuals with more positive attitudes toward own aging, but less so for individuals with less positive attitudes toward own aging.

7. SEQ-Volunteering increases over time for low PNS individuals, but less so for high PNS individuals.

8. SEQ-Volunteering increases over time for individuals who are high with regard to a secure attachment style or high with regard to an avoidant attachment style, but not for individuals who are high with regard to an anxious attachment style.

9. SEQ-Volunteering increases over time for individuals who have a future time perspective that is open-ended rather than limited.

10. SEQ-Volunteering increases over time for individuals who are high in curiosity or
exploration but less so for individuals who are low in curiosity or exploration.

11. Personality, as assessed by the TIPI, should not influence self-expansion.

12. Any longitudinal changes will be more pronounced for novice volunteers, but should be less pronounced for long-time volunteers.

13. SEQ-Volunteering predicts Functions of volunteering (VFI).

**Research questions.**

In addition, I will address a set of generic research questions for which no specific predictions have been formulated. These research questions include:

A. To what extent are cross-sectional correlations moderated by gender?

B. To what extent are longitudinal correlations moderated by gender?

Research questions A and B are motivated by the observation that my pilot study revealed various instance in which predicted correlations only occurred for men or women. It can be assumed that gender differences in socialization were pronounced in the age group included in this study; hence, it is not surprising to observe that gender difference that broadly map onto agentic versus communal orientations (e.g., Bakan, 1966; Cross & Madsen, 1997).

C. Does age moderate the above findings?

Despite the fact that this study “limits” itself to the study of older adults, the age range, and with it the cohort experience, might differ dramatically for members of the present sample. Further, older volunteers within this sample might be more likely to face physical ailments compared to younger volunteers.

D. To what extent does one’s subjective assessment of health follow the same pattern
as that of other outcome variables (e.g., mastery, attitudes towards one’s own aging)?

Based on the self-expansion model, it is more plausible to predict that self-expansion will proximally influence psychological well-being. However, of the established connection between psychological well-being and physical health (e.g., Ryff & Singer, 1998), as well as the known health benefits from volunteering (e.g., Hinterlong et al., 2007), I explore to what extent self-expansion also predict subjectively assessed physical health.

E. Does mastery, attitudes toward one’s own aging, role identity and commitment at Time 1 predict SEQ-Volunteering at Time 2, and is this relationship qualified by participant characteristics?

Although our above hypotheses treat self-expansion as a predictor of mastery, attitudes toward one’s own aging, role identity and commitment, I am also interested to what extent these variables at Time 1 do in turn predict self-expansion processes at Time 2.
Chapter 7 - Method

Recruitment

The VASSY was completed twice by participants with three months between each survey. Recruitment took place in a total of three phases, with new phases added on once it became clear that the preceding recruitment phase did not result in the expected number of participants. Initial recruitment occurred at the annual Volunteer luncheon, which was held at the Atlantis Casino, Reno, NV where the Sanford Center for Aging rented space for the occasion. There were approximately 300 volunteers who attended this luncheon. During the last 5 minutes of the volunteer luncheon, a script was read that was specifically written for recruitment at this function (See appendix A for script).

Phase two of recruitment took place at the Sanford Center for Aging or other university locations in which volunteers gathered for training and/or for informal volunteer meetings held by the volunteer programs. During the last 5 minutes of the meeting I read a script specifically designed for this purpose (see appendix B). Also, blank VASSY surveys and a flyer describing the research study were made available through employees of the volunteer programs during their regular course of business. Blank surveys were available at the Sanford Center for Aging and at the volunteer program’s reception desk along with a flyer.

Phase Three of recruitment consisted of having the volunteer survey packets being available at the reception desk of 12 of the rural RSVP locations and at the RSVP offices at the Sanford Center for Aging, UNR; the Rural RSVP office in Carson City, Nevada. The Rural RSVP office also had packets available for the rural sites if they chose
to have the flyer available in their location. A copy of the described flyer above was attached to each of the survey packets. Volunteers could read the flyer and pick-up a packet if they were interested.

Participants were given up to four weeks from accepting materials to decide whether to participate. After the initial contact there was not any interaction between researchers and potential participants. Approval for all aspects of this study was granted by University of Nevada, Reno’s Human Subjects Internal Review Board.

**Participants**

Participants were recruited from the Retired and Seniors Volunteer Program (RSVP), the Senior Outreach Services (SOS), and the Legacy Corp programs at the Sanford Center for Aging as well as from the Nevada Rural RSVP program. The Sanford Center for Aging (SCA) is part of the University of Nevada, Reno. There were 130 older adults who returned the initial VASSY survey of which 121 returned the 2nd VASSY survey. From this sample of 121 older adult participants, 111 completed both the role identity measure and the commitment measure in at Time 1 and at Time 2. Therefore the sample used in this study consisted of 111 of the ranging in age from 53 to 89 years old ($M = 70$ years; $SD = 8.38$). Average participant age for both females and males was 70 (females $n = 92$; age range 53-89: males $n = 38$; age range 57-84). Most of the participants were in the Baby Boomer I cohort ($n = 83$; born between 1928 and 1945) and Baby Boomer II cohort ($n = 30$; born between 1946 and 1955). Of the 130 participants who returned the first survey 121 returned the second survey and 89 returned the supplemental survey with 8 participants opting out of sharing their volunteering
information from their respective RSVP records. There were at total of 88 (68%) participants who chose to participate in all three surveys. Data from the 111 respondents completing the first and second surveys were used in data analysis focused on testing my hypotheses; data from the supplemental survey were used for additional exploratory analyses.

As anticipated all participants reported living in Nevada and volunteering in the Retired and Senior Volunteer Programs (RSVP) of Washoe County or various rural counties (Carson City, Douglas, Elko, Humboldt, Lincoln, Lyon, Nye, and Pershing). A majority of the participants had prior volunteering experience of more than five years ($N = 57\%$). On self-rated health, the majority reported being in good health ($n = 68: 52\%$) or excellent health ($n = 41: 32\%$), with only 2 (2%) participants reporting poor health and 17 (13%) participants reporting fair health. On a scale of one to four, the overall mean score for self-reported health was 3.16. A majority of participants reported having a high school diploma or better with only one participant reporting “some high school.” Most of the participants were currently married ($n = 73$ or 58%) or widowed ($n = 27$ or 22%) with a lesser amount reporting being divorced or separated ($n = 21$ or 17%). See Table 4 for demographic summary.

Total number of participants ($N = 129$ for Time 1; $N = 120$ for Time 2; $N = 89$ for Supplemental Survey) were sufficient for planned statistical analysis of data collected. Roughly 120 participants are required to detect a (cross-sectional) correlation of $r = .25$ assuming an alpha error of .05, and a beta error of .80 based on a power analysis.
Materials

All participants received packets which contained a cover letter explaining the purpose of the research and inviting volunteers to participate; a copy of the Volunteers' Activities and Satisfaction Survey (VASSY) questionnaire; a pre-addressed, pre-stamped envelope to mail the questionnaire to researchers; and a lottery ticket in the form of a pre-addressed and pre-stamped postcard.

The VASSY is a 13-page pencil and paper questionnaire that is completed at the convenience of the participant in the privacy of their home or any location of their choice. Completion time for the questionnaire takes approximately 35 minutes. Upon completion, the participant returns the questionnaire via US mail in a pre-addressed pre-stamped envelope. All participants were invited to participate in the lottery by filling in their name and contact information on the pre-addressed, pre-stamped postcard, mailing it separately from the questionnaire. All lottery postcard are entered into a lottery with a possibility to win one of six (6) $50 prizes. (See Appendix C for complete survey.)

Once a complete survey arrived at my office, the page of the first questionnaire that contains the name and address of a participant was separated from the survey, and the person (and the survey) was given a unique code number. A spreadsheet cross-referencing participants' name, address, and code was created. Both the survey page and the spreadsheet are being kept in a locked cabinet to which only Susan Harris and Markus Kemmelmeier have access. The unique code was used to mail the second survey to the thus identified participant.

After three months the second questionnaire (12 page pencil and paper) was
mailed to participants along with a revised cover letter and revised instructions pages (2nd Volunteers' Activities Satisfaction Survey). The cover letter of the second survey referenced the initial survey. No identifying information of any kind was requested on the second survey. As before, participants used a pre-addressed, pre-stamped to return their completed survey. As with the first survey, the survey also included a pre-addressed, pre-stamped lottery ticket that was mailed back separately. Thus, each participant had the opportunity to enter the lottery twice. (See Appendix D for Time 2 specific sections of VASSY.)

The Supplemental VASSY Survey (S-VASSY) was sent to all participants in June, 2010. All participants could simply not return the survey if they chose not to participate; if they chose to participate but did not wish to have RSVP share specific information then they were instructed to send back the Opt Out form that was enclosed. (See Appendix E for S-VASSY Survey.)

The Volunteers' Activities Satisfaction Survey (VASSY) was a 13 page pencil and paper questionnaire, written in 14-point font, designed to explore changes in self-expansion and other related variables, in adults 50+ years of age while volunteering over a 3 month period. The VASSY consists of the following categories (see appendix C for complete survey):

**Introduction.**

Introduces the survey and explains the purpose of the survey. Gives participants assurance that all information will be kept confidential and that participation is voluntary.

**Materials**
In the section below the materials contained in the two waves of the VASSY are described in detail. These materials consist of: the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) which is a 10-item very brief measure of the Big-Five personality domains; a single item Likert-scale question rating level of conservatism/liberalism; the seven-item Mastery Scale, to measure of self-efficacy in older adults (Pearlin & Schooler, 1978); the seven-item Curiosity and Exploration scale, to measure levels of exploration and absorption (CE; Kashdan, Rose, & Fincham, 2004); the 17-item Philadelphia Geriatric Center Morale Scale, to measure of life satisfaction and attitudes toward one's own aging in older adults (PGCMS; Lawton, 1975); the 12-item, Personal Need for Structure scale to measure need for structure in everyday life (PNS; Neuberg & Newsom, 1993); the Adult Attachment Scale (AAS; Collins & Reed, 1990) and the Future Time Perspective to measure perceptions of time (Carstensen & Lang, 1996; Carstensen et al., 1999; Lang & Carstensen, 2002).

**Volunteerism.**

The 14-item Self-expansion Volunteer questionnaire (SEQ-Volunteering) to measure self-expansion while volunteering; the seven-item Volunteer Role-Person Merger, to measure integration of volunteering role into self (Charng, Pilivian, & Callero, 1988); and the Volunteer Functions Inventory (VFI) to measure motives for volunteering (Clary et al., 1998).

**Demographics.**

This section was included to document the composition and general characteristics of the sample. Questions (10-items) include gender, racial identity,
religious affiliation, year of birth, marital status, level of education, self-rated health, household composition, self-rated liberal/conservative, and importance of religion.

**Supplemental survey**

Additionally, a Supplemental VASSY with an “Opt Out” form and return postage paid envelope was mailed to established participants. Participants were asked questions regarding volunteering tasks, current and past volunteering activities, start and stop dates of volunteering tasks, feelings closeness towards the volunteer organization. Participants were also asked for permission to allow RSVP to share specific information regarding their volunteering such as date starting with RSVP, tasks assigned, and hours spent volunteering. No addition lottery ticket was offered. (See Appendix E for full survey.)

**Data Analysis**

Data from all three surveys were entered into SPSS over a seven month period. Data was reviewed for data entry errors and corrections were made when applicable. Coding syntax for all measures was created. All multiple-item measures were combined to yield single scale scores where appropriate. As a cautionary step, principle component analysis was conducted on all variables to confirm the underlying assumed structure of each measure; all structures were confirmed to be in line with the literature To assess whether measures formed reliable scales, Cronbach’s alpha was computed for each measure. Test-retest reliability was accomplished using Pearson’s correlation for all measures. All variables were examined for their distributions and checked for basic statistical assumptions. Assumptions of normality, linear relationships between pairs of variables, and the variable being correlated at moderate levels were checked. Hypotheses
and research questions guided all statistical analyses. Analyses and findings are provided in the following chapter. Brief descriptions and Cronbach alpha coefficients for all measures are reported below.

**Self-expansion.**

As used previously in my pilot study, the modified version of the 14-item Self-Expansion Questionnaire (Lewandowski & Aron, 2002) was used to measure self-expansion in volunteering, (Self-expansion Questionnaire–Volunteer; SEQ-V; $\alpha = .95$). This measure was originally standardized on a population of college students aged 18 to 35 years.\(^5\)

**Attachment style.**

The 18-item, three factor, Adult Attachment Scale (AAS; Collins & Read, 1990) was used to measure adult attachment style. The factor of “close” measures comfort with closeness and intimacy, higher scores reflect greater feelings of comfort (i.e., capacity to be close). The factor “depend” measures how much the individual believes that others can be depended on to be available whenever the individual might need them (i.e., capacity to depend on others). The factor of “anxiety” measures participants’ level of anxiousness regarding their feelings about being abandoned or unloved (i.e., anxiety over relationships). A secure attachment would be reflected in high scores on the close and depend subscales, and low scores on the anxiety subscale. Anxious attachment would be when a participant scores high on the anxiety subscale and moderate on the Close and Depend subscales. Finally, avoidant attachment would result in low scores on close,

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\(^5\) Per email correspondence from Gary Lewandowski, January 25, 2011
depend, and anxiety subscales (Collins & Read, 1990). The reliabilities of the three subscales were for depend $\alpha = .70$, anxiety, $\alpha = .62$ and close $\alpha = .61$. The three subscales were significantly yet moderately correlated; anxiety and depend, $r = -.421$, anxiety and close, $r = -.333$, depend and close, $r = .576$ (all correlations were $p < .000$). This measure was originally standardized on a population of undergraduate students with an age range from 17 to 37 years (Collins & Read, 1990).

**Personality.**

The Ten Item Personality Inventory (TIPI; Gosling et al., 2003) was used to measure the Big-Five personality domains of extraversion ($\alpha = .52$), agreeableness ($\alpha = .34$), conscientiousness ($\alpha = .47$), emotional stability ($\alpha = .46$), and openness to experience ($\alpha = .23$). A sample of undergraduate students was used to standardize this measure. Interestingly, the age range of this sample was not provided, however ethnicity and gender were provided by Gosling et al. (2003).

**Curiosity and Exploration.**

The seven-item two-factor, Curiosity and Exploration Inventory (CEI; Kashdan, Rose, & Fincham, 2004) was used to measure exploration and absorption (exploration $\alpha = .71$; absorption $\alpha = .65$). This measure has been used successfully in research exploring curiosity and information seeking in older adults (e.g., Kashden et al., 2004). This measure was standardized on a population of undergraduate college students and a population responding to an Internet based survey (18 – 49 years of age). A small to near-

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6 The alpha reliabilities of these subscales will appear to be low; however, the reader must keep in mind that each scale is composed of only two items; thus, lower alpha reliabilities are to be expected. Gosling et al. (2003) examined the test-retest reliability of this the TIPI and found it be adequate (see also Chen & Lee, 2008, and Laukka, 2007).
zero relationship was found between age and the CEI (Kashdan et al., 2004).

**Commitment.**

Commitment was measured using a single item question; “How much are you committed to continue volunteering?” This measure provided a “face value” indicator of commitment to ongoing volunteering.

**Future Time Perspective.**

The 10-item Future Time Perspective Scale (FTPS, Carstensen & Lang, 1996; Carstensen et al., 1999; Lang & Carstensen, 2002) was used to measure participants’ perspective of future time. Internal consistency for this measure was $\alpha = .87$. This measure has been used extensively across age groups with participants’ age ranging from 20 to 90 years (Lang & Carstensen, 2002).

**Health.**

Health was measured using the single item “How would you rate your overall health?” This measure has proven to be an excellent predictor of future health (e.g., Lorig, Stewart, Ritter, González, Laurent, & Lynch, 1996. This measure has been standardized with a sample of 25 to 74 year olds (Idler & Angel, 1990).

**Life satisfaction/Attitudes toward one’s own aging.**

The 17-item Philadelphia Geriatric Center Morale Scale ($\alpha = .79$) was used as a global measure of life satisfaction in older adults (PGCMS; Lawton, 1975). This scale consists of three subscales, a six-item agitation scale ($\alpha = .63$), a five-item attitude toward
own aging scale ($\alpha = .67$), and a five-item lonely dissatisfaction scale ($\alpha = .65$). Participants responded to each item with agree (0) or disagree (1). Responses were coded such that higher values indicate more favorable outcomes, that is, better morale, less agitation, more positive outlook on one’s own aging and less dissatisfaction. This measure has been used extensively in the field of aging and has been standardized on a sample of adults aged 55 to over 100 years (e.g., Ma, Green, & Cox, 2010).

**Need for structure.**

The 12-item Personal Need for Structure Scale ($\alpha = .79$) was used to measure need for structure in everyday life (PNS; Neuberg & Newsom, 1993). This scale was standardized using a group of undergraduate students; specific age range of participants was not provided (e.g., Neuberg & Newsom, 1993).

**Role identity.**

A modified seven-item Volunteer Role-Person Merger measure (e.g., Callero, 1985; Charng, Pilivan, & Callero, 1988) was employed to measure the degree to which volunteers identified with their role as a volunteer ($\alpha = .80$). The original 5-item scale was modified by substituting the words *volunteer* and *volunteering* for *blood donation* and *blood donor* in these items. Also two additional items were included; “Being a volunteer is not very important to me.” and “Volunteering is an important part of who I am.” The original 5-item measure has been standardized by use of a mail questionnaire that was sent to blood donors who must be 18 years of age, however, specific age range was not provided (e.g., Callero, 1985).

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7 As in the pilot study, one item on the lonely dissatisfaction scale was eliminated as it did not cohere with the other five items.
Self-efficacy.

The seven-item Mastery Scale ($\alpha = .65$) was used to measure self-efficacy. This scale has been used specifically in older adult populations. This measure has been standardized using a longitudinal study consisting of 2 waves four years apart; participants originally ranged in age from 18 to 65 years (Pearlin & Schooler, 1978).

Reasons for volunteering.

The Volunteer Functions Inventory (VFI, Clary et al., 1998; Clary & Snyder 1999) was used to discover participants’ reasons for volunteering. The VFI is a 30-item, 6-factor self report measure: values function ($\alpha = .74$); understanding function ($\alpha = .83$); enhancement function ($\alpha = .84$); career function ($\alpha = .90$); social function ($\alpha = .88$); protective function ($\alpha = .83$). This measure has been standardized with a sample of community volunteers with a mean age of 40.9 years.

Supplemental VASSY (S-VASSY)

Description of volunteering tasks.

Participants were asked to indicate which RSVP organization they volunteered for and the following open-ended questions regarding their tasks while volunteering, “In your own words what do you do while volunteering for …?”

Closeness to people in volunteer organization.

The single-item pictorial measure Inclusion-of-Community-in-the-Self (ICS, Mashek et al., 2007) was used to assess participants’ feelings of closeness to people in the volunteer organization in which they were active. This single-item scale consists of six pairs of overlapping circles with pairs of same-sized circles overlapping more than the
preceding pair one moves from the left-most to the right-most pair. Participants were asked to “circle the picture that best describes how close you feel to the people in the name of organization.” The ICS is a modified version of the Inclusion-of-Other-in-the-Self (IOS) scale that was developed based on the self-expansion model (Aron & Aron, 1986). This measure has been standardized with a sample of college students in which age ranged from 18 to 45 years.

**Retirement.**

Retirement was measured with a two part yes/no question: “Are you currently retired?” and “How Long?” If participant answered “yes”, the participant was then asked, “why did you retire?”

**Participation in other volunteering activities.**

Questions regarding overall volunteering activities excluding activities with RSVP; other current activities, other past activities, and information regarding length of time involved with these possible activities.

**Social economic status.**

Social economic status was measured using a single-item question, “Which of the following terms best describes your current social class (socioeconomic status)? Responses ranged from ‘lower class’ to ‘upper class’ with five 5 possible answers.
Chapter 8 – Results

Following some preliminary analyses, each hypothesis will be addressed separately by providing the analyses that tested the prediction as stated. (See Tables 5 and 6 for a complete listing of hypotheses and status.) Multivariate statistical analysis will be used to examine the nature of more complex relationships between SEQ-V and other variables. Cohen’s (1988) effect size levels for correlation coefficients will guide findings: small effect size \( r = .10 \); medium effect size \( r = .30 \); and large effect size \( r = .50 \). There were a total of 120 participants who returned both the 1\(^{st}\) \((N = 130)\) and 2\(^{nd}\) surveys \((N = 121)\) from which 111 participants completed both the measure of role identity and the measure of commitment, which are the volunteering specific outcome variables. Of these 111 participants 23 reported volunteering ≤ 15 months and 88 reported volunteering for ≥ 16 months. All analyses and subsequent findings of this study are based on this sample of participants \((n = 111)\). (See Table 4 Demographics for more information regarding a comparison of VASSY versus S-VASSY participants.)

A total of 89 supplemental surveys were received and a total of 77 participants’ consented to the release of information regarding their volunteering activities from the RSVP organization The Supplemental Survey will not be used in main analyses since the power of the research would be reduced. Findings of the Supplemental Survey will be reported where appropriate. There is over a 97% chance that this study will produce a significant correlation with a large effect size; a 57% chance for a medium effect size (e.g., Aron, Aron, & Coups, 2009, p. 465). To address concerns regarding interpretability of predictor variable interactions all variables were centered thus reducing the likelihood

**Preliminary Analyses**

Convergence between self-reported volunteering and institutional reports was examined. A review of the Time 1 and Time 2 self-reports of volunteering activity revealed that the question of how long participants had volunteered was open to different understandings. It could be interpreted as asking about how long respondents had volunteered for RSVP, or how long they have been volunteering in any capacity or for any organization.

To examine whether the question indeed reflected history with RSVP, I correlated the self-reports of “time volunteered” and the official organizational records of their history with RSVP for those participants who chose to participate in the supplemental survey and consented to the release of such information from the RSVP organization ($n = 77$). A correlation of the two variables revealed them to be essentially uncorrelated, $r = -.11$, $p = .31$. Further a paired-samples t-test revealed that self-reported time as a volunteer far exceeded the RSVP organizational data ($M = 114.00$ vs. $M = 54.36$), $t(76) = 3.94$, $p = .0002$. This pattern fit the interpretation that the time with which a volunteer was on record with RSVP constituted only a subset of the total time that a volunteer reported having engaged in any volunteering activity. In other words, the organizational data reflected only a subset of the respondents’ time as a volunteer. For purposes of comparison I conducted analyses that included either the self-reported history or the organizationally reported history; however, only the self-reported history as a volunteer yielded any effects (see below). This may only be a function of the fact that the sample
size was reduced when using organizational data because not all respondents of Time 1 and Time 2 had participated in the supplement survey, nor had all participants in the supplemental survey granted permission for me to use their organizational data. However, there is a theoretical reason why one’s total time as a volunteer should be relevant for self-expansion process, but not necessarily one’s time with a particular organization. Volunteers may experience the same kind of self-expansion as a function of their volunteering activity regardless which specific organization they are serving, as long as the general nature of their volunteering activity is similar. Therefore, one’s overall time spent working as a volunteer (history as a volunteer) should be more important in shaping psychological responses to volunteering than time served with a particular organization.

Mainly to assess the validity of self-reported time investment in one’s volunteering activity, I also correlated organizational records of time volunteered per month with participants’ reports, where available. These two figures were highly correlated, $r(67) = .77$, $p < .00001$, suggesting that self-reports are quite valid. However, a comparison of average levels of hours spent working for RSVP per month revealed that self-reported figures were significantly above those recorded by the organization ($M = 29.60$ vs. $M = 22.36$), $t(66) = 3.92$, $p < .001$. Possibly, this pattern reflects that reports of contributions to communal activities by individuals tend to be inflated relative to objective reports (e.g., Ross & Sicoly, 1979). In other words, it is possible that the organizational data are correct, whereas the self-report data are exaggerated. An alternative cause for this apparent discrepancy is a possible underreporting of volunteer
hours on the part of the volunteers themselves, pointing to the fact that the organizational data are accumulated self-reports over time. To the extent that the reporting discipline of volunteers is low, e.g., because they are more focused on helping others rather than satisfying organizational demands, it is possible that current self-reports are more accurate than the organizational records. However because they were so highly correlated, I relied on self-reports as predictor in subsequent analyses.

**Hypothesis: Correlations (cross-sectional)**

**Hypothesis 1.**

The first hypotheses concerned the correlation of variables presumed to be antecedents of self-expansion and of variables that are potentially stable with SEQ-Volunteering (SEQ-V) at Time 1 and at Time 2. Specifically, it was predicted that attitudes towards one’s own aging, mastery, commitment, role identity, volunteer functions (VFI), future time perspective (FTPS), curiosity and exploration, attachment style, personal need for structure (PNS) and self-reported health would have a positive correlation with SEQ-V at Time 1 and at Time 2.

Pearson product moment correlations (\(r\)) were computed to characterize the relationship between SEQ-V and the same variables listed above at Time 1 and Time 2 (see Table 7). All variables listed above had a positive correlation to SEQ-V with the exceptions of negative, but non-significant correlations of Personal Need for Structure Time 1 \(r(110) = -.07, p = .46\), Time 2 \(r(111) = -.07, p = .47\), and anxiety attachment at

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8 According to the director of the SOS program, approximately 20 volunteers have resigned from their formal volunteering position in response to recent additional reporting requirements made by the grantor of funds that support grant reporting requirements of the SOS program. These former volunteers continue to be active in provide support to older adults however, they do so outside of the formal volunteer program to avoid paperwork.
As predicted, all VFI variables (career, social, values, understand, enhance, protect), exploration, absorption, openness, hours spent volunteering in a month, and future time perspective were positively correlated to SEQ-V at Time 1 and at Time 2. In one case, close attachment, there was a significant correlation at Time 1, but not at Time 2, though the reverse never occurred. The correlation of all other variables with SEQ-V was similar across both points in time. Consistently nonsignificant variables were; attitudes toward one’s own aging, mastery (although at Time 2 approached significance, \( p = .083 \)), self-reported health, personal need for structure, agreeableness (approached significance at Time 2, \( p = .063 \)), emotional stability (approached significance at Time 2, \( p = .085 \)), extraversion, conscientiousness, depend, anxiety, time as a volunteer, morale, agitation, and lonely/dissatisfaction, and importance of religion, though for agreeableness the correlation with SEQ approached significance at both points in time (see Table 7).

Exploratory analyses of correlations completed separately for men and for women showed some variation. However, coefficients were generally quite similar and never significantly different from each other. Therefore, I assumed that at both Time 1 and Time 2 the correlations of the variables assessed here with SEQ is the same for men and women.

Correlational findings reveal partial support for Hypotheses 1 with most variables positively correlated with SEQ-V at Time 1 and at Time 2. However, one variable (close attachment) was significantly correlated at Time 1 was no longer significantly correlated at Time 2.
Correlational analysis was also conducted between the dependent variables. Findings from this analysis show that some of the dependent variables are significantly correlated. Not surprisingly, role identity was significantly related to commitment at Time 1 and at Time 2 ($r = .51; r = .45$); mastery was significantly related at Time 1 to role identity ($r = .19$), commitment ($r = .20$) but not at Time 2. See table 8 for more details.

**Hypotheses, Longitudinal**

**Hypothesis 2.**

This prediction involves the increase over time for levels of attitudes, mastery, role identity, and commitment whereas levels of agitation and lonely/dissatisfaction were predicted to decrease. The overall morale score of the Philadelphia Geriatric Center Morale (PGCM) scale, which is based on three subscales of attitudes toward one’s own aging, agitation and lonely/dissatisfaction was also included per recommendation of Lawton (1975). The overall morale scale of the PGCM scale is a stronger predictor than any of the sub-scores (Lawton, 1975).

Paired $t$-tests were computed to evaluate mean differences between Time 1 and Time 2 mean scores for the variables listed above (see Tables 8 and 9). As predicted there was a significant increase in role identity between Time 1 and at Time 2, $M = 3.97$, $SD = 0.85$ vs. $M = 4.10$, $SD = 0.76$), $t(111) = -2.17$, $p = .032$. However, there was a significant decline in commitment between Time 1 and Time 2, $M = 4.40$, $SD = 0.75$ vs. $M = 4.20$, $SD = 0.90$), $t(111) = 2.62$, $p = .01$. The reader may recall that the PGCMS is coded so that higher levels indicate more positive attitude toward one’s own aging, better morale, less
agitation, and less loneliness or dissatisfaction. Findings indicated a significant decrease, in positive attitudes towards one’s own aging ($M = 0.78, SD = 0.26$ vs. $M = 0.75, SD = 0.28$), $t(109) = 2.13, p = .035$, though the overall morale score, which included attitudes toward one’s own again, increased slightly, ($M = 0.84, SD = 0.17$ vs. $M = 0.85, SD = 0.19$), $t(108) = -1.282, p = .202$. Whereas the two remaining sub-scales of the PGCMS agitation and loneliness or dissatisfaction, were essentially constant over time, ($M = 0.87, SD = 0.20$ vs. $M = 0.89, SD = 0.20$), $t(107) = -1.01, p = .32$; and ($M = 0.91, SD = 0.18$ vs. $M = 0.91, SD = 0.19$), $t(108) = 0.04, p = .97$, respectively. The levels of Mastery weakened over time (Time 1 $M = 4.28, SD = 0.54$ vs. Time 2 $M = 4.18, SD = 0.61$), however, only approaching significance, $t(108) = 1.82, p = .07$. All other variables did not vary over time (see Table 5 and 6). This was also the case for the variable that is of central concern here, SEQ-V, which was remarkably constant (Time 1 $M = 3.67, SD = 0.82$ vs. $M = 3.68, SD = 0.83$), $t(111) = -0.31, p = .76$. This finding does not support the expectation that SEQ-V would increase over the course of the study. At the same time, it is important to acknowledge that a ceiling effect in SEQ-V scores did not occur; in other words, there would have been “room” for levels of self-expansion to increase had an expansion of self-expansion occurred. As is, however, note that levels of self-expansion were above the scale point, suggesting that volunteering was experienced as a highly self-expanding activity.

In summary, Hypothesis 2 was only partially supported in that increase in role identity occurred as predicted.
Hypothesis 3.

Predictions of this hypothesis concerned individual difference variables that are generally considered stable over time. Personality traits (TIPI), personal need for structure (PNS), attachment styles, curiosity, and future time perspective were predicted to not change over time, which was confirmed. As shown in Table 6, these variables did not change significantly over time, all $p > .10$. As a result, H3 was fully supported by the data. (See Table 9.)

Hypothesis 4 and Hypothesis 5.

Hypothesis 4 stated that Time 1 SEQ-Volunteering (SEQ-V) predicts longitudinal change in the outcome variables of interest. That is, when Time 1 levels of the dependent variables are controlled, Time 1 SEQ-V should predict an increase in my volunteering-specific outcome variables, commitment and role identity, and my general outcome variables, mastery, attitudes toward one’s own aging, and morale. Though there is some redundancy in examining both attitudes and morale outcome measures, I did so because attitudes toward one’s own aging is the more specific outcome under examination; whereas Lawton (1975) recommends using the overall PGCM score whenever possible.

Hypothesis 5 qualifies Hypothesis 4, and states that the impact of SEQ-V on the above dependent variables should be greater in the early stages of one’s engagement in volunteering compared to later ones.

The models.

Both hypotheses were jointly tested in a series of sequential (hierarchical) regression models. In Step 1, I added the Time 1 version of the dependent variable of
interest to be predicted at Time 2. This ensured that all subsequent predictors of the outcome variables would be related to the change observed in the dependent variable between Time 1 and Time 2.

In Step 2, I controlled for the influence of participants’ gender, ethnicity (i.e., non-white vs. white), and importance of religion at Time 1. Importance of religion was included because religion has been shown to be an important predictor of volunteering activities (e.g., Becker, & Dhingra, 2001; Ruiter & De Graaf, 2006; Wilson & Janoski, 1995).

In Step 3, I included variables reflecting an individual’s involvement in volunteering. Specifically, I added history as a volunteer, i.e. for how long respondents had been active as a volunteer, as well as time investment, i.e. how many hours respondents spent volunteering per month. Because the distribution of how long respondents had been volunteering was heavily skewed with most participants (over 80%) having volunteered for between 18 and 600 months, I categorized volunteers as short-termers \( n = 27 \) and long-termers \( n = 101 \) based on whether they had volunteered for 15 months or less, or 16 months and more. Originally, I examined quartiles; however, because the second, third and fourth quartile did not differ from each other, and differentiating between them did not produce any significant results, they were collapsed. Time investment was measured as a continuous variable in hours per month.

Step 4 entailed the inclusion of SEQ-V, my central predictor variable under Hypothesis 4. Finally, in Step 5 I entered multiplicative interaction terms between SEQ-V and both history as a volunteer and time investment. To address concerns regarding
interpretability of predictor variable interactions all variables were centered thus reducing the likelihood of problems with multicollinearity (Aiken & West, 1991). The SEQ-V by history interaction allowed a direct test of Hypothesis 5.

As discussed before, future perspective is a construct that was also examined here because it makes similar predictions to self-expansion and is correlated with SEQ-V (see Table 3). To examine whether it predicts the same outcome variable and whether it potentially confounds any effects identified for SEQ-V, we ran a series of models in which we replaced SEQ-V with FTPS as a predictor, as well as a series of models in which both variables were included along with their interactions with history and time investment.

**Findings.**

Tables 10 through 12 summarize the findings from these models. In all tables results for the two volunteering-specific outcomes (role identity, commitment) appear in the two left columns, and findings for the general outcomes (mastery, attitudes toward aging, morale) appear in the three right columns.

With regard to changes in role identity, I found a trend in women to experience a greater increase over time, and that greater importance of religion was associated with a smaller increase in role identity. Further, the longer a participant had volunteered and the greater the amount of time that a volunteer invested in the activity on a regular basis, the greater the increase in role identity over time. Most importantly, SEQ-V predicted the increase in role identity, thus confirming Hypothesis 4. However, other than predicted by
Hypothesis 5, neither history as a volunteer nor the overall amount of time regularly invested moderated the relationship between SEQ-V and the increase in role identity.

Commitment to volunteering as an activity, mastery, attitudes toward own aging, and morale were not predicted by SEQ-V. Whereas Hypothesis 4 received strong support in the prediction of the volunteering-specific outcome of role identity, there was no such support when predicting commitment or any of the general outcomes: SEQ-V did not predict any increase in commitment, mastery, attitudes and morale. Only in one instance was the interaction between SEQ-V and history as a volunteer significant, namely, in the prediction of increases in morale (see Table 10, rightmost column). However, because Step 5 overall failed to significantly improve the model, this interaction is not interpreted here.

In order to examine whether the present findings for SEQ-V were confounded by FTPS, I first repeated all of the above five regression models using FTPS instead of SEQ-V as predictor. In the analysis of role identity I did indeed find a main effect for FTPS such that higher levels of FTPS at Time 1 predicted an increase in role identity over time. Similarly, a parallel effect in the prediction of commitment emerged. Interestingly, the effect of FTPS on attitudes toward one’s own aging and morale was moderated by history as a volunteer. FTPS was a more potent prediction of increases in attitude toward one’s own aging and morale among participants who had been a volunteer for a comparatively long time, but less potent among short-term volunteers (see Table 11). The significant interaction effect for morale paralleled the one found previously in Table 10 (rightmost column); however, when using FTPS as a predictor, the inclusion of Step 5 resulted in a
significant improvement of the model fit \( p = .02 \) as well as for attitude toward own aging, \( p = .03 \) (both of which are part of the PGCMS).

With there being at least some parallels in the findings for SEQ-V and FTPS as predictor, my last set of regression analyses combined both predictor variables in the same model (see Table 12). The combined predictor variable model yielded similar results, however, neither SEQ-V nor FTPS reached significance at the .05 level for any of the dependent variables. However, role identity, the dependent variable most related to volunteering, was marginally predicted by SEQ-V with \( p = .062 \). The finding for FTPS was similar but slightly less so with \( p = .073 \) suggesting that there is very little overlap between SEQ-V and FTPS and that SEQ-V remains more predictive of role identity at Time 2 with participants in this study.

Further, findings from this model show that the interaction between SEQ-V and history as a volunteer for the dependent variable morale approached significance, \( p = .077 \); however the corresponding coefficient was significant in its interaction with FTPS, \( p = .019 \). Similarly, significance was found for the dependent variable of attitude toward own aging with the interaction between FTPS and history as a volunteer, \( p = .002 \), but not for the corresponding coefficient of SEQ-V. Both morale and attitude toward own aging, representing the overall score and one of three factor scores of the PGCMS, appear to be more influenced by FTPS as it relates to history as a volunteer than by SEQ-V. This finding suggests that the future time perspective of long time volunteers influence their overall morale and their attitude toward own future. However this interpretation should
be taken with caution since there was not a significant main effect between either SEQ-V or FTPS with either morale or attitude toward own aging.

In sum, although neither SEQ-V nor FTPS significantly predict role identity in the model that included both predictors, both predictors approach conventional levels of statistical significance. Because in this analysis SEQ-V is not confounded with FTPS, it is safest to assume that each of the variables predicts role identity independent from the other, even though they did not predict any of the other outcome variables. These results provide partial confirmation for Hypothesis 4, and SEQ-V should be regarded as predictive of volunteering-specific outcomes.⁹

**Hypothesis 5.**

This hypothesis was concerned with differing impacts of SEQ-V for volunteers who were in their early stages of engagement as a volunteer (time as volunteer ≤ 15 months) as compared to more tenured volunteers (time as volunteer ≥ 16 months). As described in the findings above, there were significant and approaching significant interactions regarding history as a volunteer however, no confirmation was found via main effect significance. In spite of the fact that history as a volunteer and time investment interacted with FTPS in their prediction of two of general outcome measures (attitude toward own aging, morale), there was marginal support the similar interaction with SEQ-V and morale (see Table 12). Hypothesis 5 was not supported.

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⁹ Although a concern of multiple model testing is inflation of alpha error, which in this case might make the finding for role identity a chance outcome, a multivariate model in which only the change scores for all dependent variables were examined simultaneously confirmed results reported herein.
**Hypothesis 6.**

This hypothesis addresses the influence of attitudes toward own aging and increases in SEQ-V. A sequential regression analysis was performed to determine if attitudes toward own aging predicts changes SEQ-V over time. Using SEQ-V Time 2 as dependent variable, with SEQ-V Time 1 entered in the first step to control for the effects of SEQ-V at Time 1 on SEQ-V at Time 2. At Step 2 I entered gender and race to control their possible influence. At Step 2 I also entered importance of religion, mainly to keep control variables consistent between different models (see Tables 10 - 12). At Step 3, I added time investment (hours spent volunteering per month) and history as volunteer (time as a volunteer). Step 4 saw the addition of attitudes toward own aging. Since Time 1 version of this variable significantly differed from Time 2 to Time 1, the Time 1 version of attitudes toward own aging was centered and entered. Finally, in Step 5 I entered the interaction of attitudes toward own aging Time 1 (centered) and SEQ-V (see Table 13).

Findings for this analysis approached marginal significance, $b = .28(.17), t = 1.62, \Delta R^2 \leq .01, p = .10$, with attitudes toward own aging failing to predict SEQ-V at a conventional level of significance. There was not an interaction effect between attitudes toward own aging and SEQ-V. Hypothesis 6 was not supported by these research findings.

**Hypothesis 7.**

This hypothesis predicts that SEQ-Volunteering (SEQ-V) increases over time for low PNS individuals, but less so for high PNS individuals. SEQ-V Time 1 scores were
subtracted from SEQ-V Time 2 scores to establish the amount of change in SEQ-V over time (SEQ-V difference). The difference in the mean score for SEQ-V indicated that self-expansion increased from Time 1 to Time 2, $M = .02; SD = .50$, however this change was nonsignificant, $p = .756$. A correlation analysis was then conducted to explore the relationship between SEQ-V change and levels of PNS at Time 1 and at Time 2. Correlations were positive, yet small, with neither PNS Time 1, $r(110) = .04$, nor PNS Time 2, $r(111) = .06$, significantly correlated to the difference of SEQ-V from Time 1 to Time 2.

I then performed a sequential regression analysis to determine if PNS predicts changes in SEQ-V over time. Using SEQ-V Time 2 as dependent variable, with SEQ-V Time 1 entered in the first step to control for the effects of SEQ-V at Time 1 on SEQ-V at Time 2. At Step 2 I entered gender and race to control their possible influence. At Step 2 I also entered importance of religion, mainly to keep control variables consistent between different models (see Tables 7-9). At Step 3, I added hours spent volunteering per month (hours volunteer) and history as volunteer. Step 4 saw the addition of (centered) PNS, which was generated based on the mean of PNS Time 1 and PNS Time 2. Finally, in Step 5, I entered the interaction of PNS and SEQ-V.

Results of this analysis showed no significant change in any of the steps except for the anticipated change when SEQ-V at Time 1 was entered in the first step (see Table 11). There was no significant influence of PNS on SEQ-V Time 2. The final model ($R^2 = .64$) failed to conclusively ascertain whether higher need for structure as measured by
PNS influences increases in SEQ-V (see Table 14). Based on these findings, no further analysis was conducted for this hypothesis. Hypothesis 7 was not supported.

**Hypothesis 8.**

This hypothesis stated that SEQ-Volunteering would increase over time for individuals who are high with regard to the subscale of close (i.e., comfort with closeness and intimacy) or high with regard to the subscale of depend (i.e., comfort with depending on others), but not for individuals who are high with regard to an anxious attachment style (i.e., worried about being abandoned or unloved). A correlational analysis was conducted using the mean difference score of SEQ-V Time 1 and SEQ-V Time 2 and the 3 attachment styles to investigate Hypothesis 8. All correlations were nonsignificant: Close, both Time 1 and Time 2 $r = -.07$, Depend Time 1, $r(114) = -.06$, Time 2, $r(118) = .02$; Time 1, $r(108) = -.07$ and Time 2, $r(116) = .05$. Data were then analyzed for possible gender differences, but this exploratory analysis yielded no significant findings.

A sequential regression analysis, similar to the model used for Hypotheses 10 - 12, was then applied to test Hypothesis 8. SEQ-V Time 1 was entered in the first step to control for the effects of SEQ-V Time 1 in all subsequent steps of the model. Individual difference variables of gender, race and importance of religion were then entered in Step 2; hours spent volunteering per month and history as a volunteer were entered in Step 3; and the mean of scores of the subscales of close, depend, and anxiety were computed, centered and entered into Step 4. In Step 5 the interaction variables of secure by SEQ-V, avoidant by SEQ-V, and anxious by SEQ-V were entered taking into consideration that the attachment styles may influence increases in SEQ-V differently among participants.
who were high or low in SEQ-V at Time 1 initially. All attachment styles were found not significant in predicting SEQ-V, excluding attachment style a potential moderator of SEQ-V. Hypothesis 8 was not supported (see Table 15).\footnote{It might be argued that the present analysis does not test the original hypothesis as stated because comparisons of attachment styles were originally based on categorical assessments. Based on guidelines provided by Collins and Read (1990), I classified participants as having a secure, anxious or avoidant attachment style and examined whether SEQ-V scores changed over time as a function of attachment style. However, the results confirmed that attachment styles did not moderate any changes in SEQ-V over time.}

**Hypothesis 9.**

This hypothesis postulated that SEQ-V increases over time for individuals whose time perspective is open-ended rather than limited, a dimension measured using the FTPS. The reader may remember that SEQ-V remained relatively stable over time with a non-significant increase from Time 1 ($M = 3.65, SD = .83$) to Time 2 ($M = 3.67, SD = .85$), with these two measurements being highly correlated, $r = .82$, this limits my ability to test this particular hypothesis as there is only little variation to be explained.

Hypothesis 9 said that the change in SEQ-V between Time 1 and Time 2 should be predicted by FTPS. Both FTPS measured at Time 1 and Time 2 were essentially uncorrelated to the change in SEQ-V, as computed as the difference of SEQ-V at Time 1 and Time 2, $r(116) = -.001$ and $r(119) = .024$.

As previously described, I applied the regression analysis model described in Hypothesis 8 to test Hypothesis 9. The dependent variable of SEQ-V at Time 2 was entered with SEQ-V Time 1 entered in the first step of the model. Once more ensuring that in all subsequent steps of the model, the additional predictors would relate to the
increase in SEQ-V over time. In Step 2, I entered gender, race and importance of religion; hours spent volunteering per month and history as a volunteer were entered in Step 3, and the centered FTPS score at Step 4. Finally, in order to account for the fact that FTPS might affect SEQ-V increases differently among individuals who were high or low in SEQ-V at Time 1 already, I added the multiplicative interaction of FTPS and SEQ-V at Time 1 in Step 5 (see Table 16).

As before, SEQ-V Time 1 predicted SEQ-V at Time 2, but neither Step 2 nor 3 contributed to the model fit. Critically, neither the inclusion of FTPS at Step 4, nor of its interaction with SEQ-V at Step 5 were significant, both $\Delta R^2 < .01$, $p > .35$. That is, FTPS did not moderate any change in SEQ-V over time. Thus, Hypothesis 9 was not supported.

**Hypothesis 10.**

The concern of this hypothesis is that SEQ-Volunteering increases over time for individuals who are high in curiosity and exploration but less so for individuals who are low in curiosity and exploration. As previously described, both correlational analysis and use of the standard model of regression will be utilized to test this hypothesis.

The correlation analysis shows that SEQ-V and absorption at Time 1 and at Time 2 were nonsignificant related, $r(118) = -.09$ and $r(118) = -.04$, respectively. Similarly, the correlations between SEQ-V and exploration at Time 1, $r(118) = -.13$ and at Time 2, $r(118) = -.008$ were small and nonsignificant.

A sequential regression analysis, similar to the model used in hypotheses 4 thru 9, was then employed to further examine the predictability of SEQ-V at Time 2 from the variables of absorption and exploration. Steps 1 through 3 were followed as described in
prior hypotheses. However, to test Hypothesis 10 the centered mean score of exploration and then the centered mean score of absorption were entered in Step 4. To account for the fact that exploration and absorption might affect SEQ-V increases differently among individuals who were already high or low in SEQ-V at Time 1, I added the multiplicative interaction of exploration and SEQ-V Time 1 and absorption and SEQ-V at Time 1 in Step 5 (see Table 14).

Results of this analysis showed that, as expected SEQ-V Time 1 was significant, \( b = .83, p = .001 \) in Step 1. Neither Step 2, 3, and 4 were significant, all \( \Delta R^2 < .01, p > .28 \). Although Step 5 was also not significant, \( \Delta R^2 = .013, p = .11 \), there was a significant absorption by SEQ-V interaction, \( b = .17, p = .044 \). This finding suggests that participants who are incorporating aspects of a self-expanding experience may also be very focused or absorbed in the activity. That is, participants more involved in absorbing volunteering experience(s) at SEQ-V Time 1 are likely to have increases in SEQ-V at Time 2. However, the interaction of exploration and SEQ-V Time 1 was not significant, suggesting that at Time 2 participants may have been more involved in absorbing or incorporating new, self-expanding experiences. At the same time though the interaction of exploration and SEQ-V Time 1 was reliable in Step 5, \( b = .04, p = .57 \).

**Hypothesis 11.**

This hypothesis specified that personality, as assessed by the TIPI, should not moderate self-expansion. Once more analysis was computed on the core group of participants who completed both the role identity and commitment measures at Time 1 and Time 2 of this research. Correlation analysis was used to investigate the correlation
between the difference between SEQ-V Time 1 and Time 2 and the independent variables of interest. As reported in Table 7, four of the five factors of the TIPI measure were not significantly related to SEQ-V either at Time 1 or Time 2: Agreeableness, $r(107) = .10, p = .29$ and $r(106) = .18, p = .06$; Emotional stability, $r(107) = .11, p = .28$ and $r(108) = .17, p = .09$; Extraversion, $r(105) = .01, p = .90$ and $r(105) = .06, p = .55$; Conscientiousness $r(107) = -.07, p = .51$ and $r(1108) = -.002, p = .99$. However as indicated above, agreeableness at Time 2 and emotional stability at Time 2 were marginally significant. Openness was the only personality trait found to be significantly related to SEQ-V at both Time 1 and Time 2, $r(107) = .19, p = .05$ and $r(107) = .26, p = .007$ respectively. These findings suggest that individuals who tend to be more open to new experiences may also be more likely to seek self-expansion.

Once again a sequential regression analysis, similar to the model used in hypotheses 6-11, was employed to further examine the predictability of SEQ-V at Time 2 by the 5 personality traits. Steps 1 through 3 were followed as described in prior hypotheses. However to test Hypothesis 11 the centered mean score of the five personality traits were entered in Step 4. To account for the fact that these five personality traits might affect SEQ-V increases differently among individuals who were already high or low in SEQ-V at Time 1, I added the multiplicative interaction of each of the five personality traits (i.e., agreeableness, conscientiousness, emotional stability, extraversion and openness) and SEQ-V Time 1 in Step 5. Although Step 5 did not significantly add to the model fit (see Table 18), the personality trait of extraversion was marginally significant in predicting SEQ-V at Time 2, $b = -.11, p = .06$ (see Table 15).
To further investigate the possibility of personality traits influencing SEQ-V, I
then ran the analysis for each personality trait individually in a truncated version of the
above model, with the appropriate interaction term added in the final step. Consistent
with the larger model, neither openness, emotional stability, nor agreeableness predicted
changes in SEQ-V when used as single prediction. However, extraversion was
significantly and negatively correlated to SEQ-V Time 2, \( b = -.10, p = .033 \). This finding
suggests that extraverted volunteers may look for social stimulation, which they may not
find in their volunteering activity, at least not at the desired level. As a result, the SEQ-V
for highly extraverted volunteers may decline between Time 1 and Time 2 interaction.

The reader may recall that the Big 5 personality measure (Gosling et al., 2003) is
a 10-item measure with only 2 items per personality factor therefore this finding should
be interpreted with caution. Nonetheless, this finding does indicate that the personality
trait of extraversion may indeed influence SEQ-V contrary to Hypothesis 10. None of the
other personality traits were predictive of SEQ-V at Time 2. Thus, Hypothesis 10 is only
partially supported.

**Hypothesis 12.**

This hypothesis states that any longitudinal changes will be more pronounced for
novice volunteers, but should be less pronounced for long-time volunteers. This
hypothesis was investigated using a sequential regression model similar to hypotheses 6 -
11. In Step 1 the SEQ-V Time variable was entered; at Step 2 the individual variables of
gender, race, and importance of religion were added; in Step 3 the variable of volunteer
hours per month was entered; and in Step 4 the variable for history as a volunteer was
entered; and finally in Step 5 the interaction variable of history as volunteer by SEQ-V was entered. As stated earlier, the variable for length of time as a volunteer is dummy coded with participants who have volunteered for 15 months or less (0) and participant who had volunteered for 16 months or more (1).

History as a volunteer approached marginal significance in the prediction of SEQ-V at Time 2, \( b = .17, p = .13 \). However, the interaction of hours spent as a volunteer and SEQ-V indicated a significant negative relationship that was predictive of SEQ-V at Time 2, \( b = -.30, p = .05 \). This result indicates that volunteers who have been volunteering for \( \leq 15 \) months, experience self-expansion at a higher rate than long-term volunteers. This finding is in line with the theoretical proposition of the self-expansion model in regards to novelty being an important aspect of self-expansion; presumably volunteering is more of a novel experience for participants who have been volunteering \( \leq 15 \) months. Findings from this analysis support Hypothesis 12.

**Hypothesis 13.**

This hypothesis concerns the relationship functions of volunteering (VFI) and SEQ-V. Once more a sequential regression model was used to investigate this hypothesis. In Step 1 the VFI variable was entered; at Step 2 the individual variables of gender, race, and importance of religion were added; in Step 3 the variables of volunteer hours per month and history as a volunteer were entered; in Step 4 SEQ-V Time 1 was entered, in Step 5 SEQ-V Time 2 was entered. As stated earlier, the variable for length of time as a volunteer is dummy coded with participants who have a history of volunteering for 15 months or less (0) and participant who have a history of volunteering for 16 months or
SEQ-V was highly significant in predicting VFI understanding, $b = .28(.09)$, $t = 3.05$, $\Delta R^2 \leq .04$, $p = .003$ however there was not an interaction effect (see Table 20). The reader may recall that VFI understanding is concerned with individuals choosing to volunteer in order to have the opportunity to express “altruistic and humanitarian concerns for others” (p. 1518, Clary et al., 1998). The highly significant predictability of VFI understanding time 2 by SEQ-V supports the notion that SEQ-V predicts changes in the function served by participation in volunteering activities. Marginal support for SEQ-V predicting changes in the function of enhancement at Time 2, (e.g., that is the striving to feel positive about one’s self), was found, $b = 18(09)$, $t = 1.64$, $\Delta R^2 \leq .01$, $p = .10$. However, analyses with VFI of values, career, and social found no significance.

Partial support for hypothesis 13 was found in two of the five functions of volunteering.

**Research Questions**

I tested a series of research questions. Analyses were primarily exploratory and were not based on any particular hypothesis. Exploring differences between responses for females as compared to males was of interest as was chronological age. The goal was to gain a general sense of patterns in the data that were not tied to a specific theoretical framework.

**Research question A.**

Research question A asked if the size and direction of cross-sectional correlations is moderated by gender. For this purpose, I compared all correlations coefficients for men
and women as summarized in Table 4. This was done using the Fisher Z test. For none of the correlations was there a significant difference between coefficients for men and women, though in a few instances (e.g., anxious attachment at Time 1) the difference approached statistical significance, \( p = .062 \). However, because these unexpected differences did not surpass the conventional threshold for statistical significance, they are not interpreted here.

**Research question B.**

As the reader may recall, only three variables across all of those measured in the present study changed significantly over time (see Tables 8 and 9). To explore whether gender moderated this type of longitudinal change, I performed a series of mixed-model ANOVAs, in which time (Time 1 vs. Time 2) served as repeated measures factor, and gender served as between-groups factor. For none of the dependent variables summarized in Tables 5 and 6 did gender moderate the longitudinal change; in other words, the interaction effect in the ANOVA was never significant. At the same time, there were some gender differences in average levels of the dependent variables, e.g., mastery was larger in men than in women, \( F = .501 \). However, because such general gender differences are not relevant for the present study, they are not discussed further.

**Research question C.**

As with gender I explored whether previously reported results were moderated by chronological age and cohort. Cohort differences have been predictive in choice of marketing strategies aimed at marketing to older adults (see Bidwell, 2009). Cohorts were based on participants’ birth year: World War II = 1922 thru 1927 \( (n = 9) \); Post WWII =
1928 thru 1945 ($n = 70$); Baby Boomers I = 1946 thru 1954 ($n = 24$); Baby Boomers II = 1955 thru 1965 ($n = 3$). Even though the sample included a wide range of ages (53 to 89 and cohorts, neither age nor cohort emerged as a significant moderator of the above results.

**Research question D.**

This research question concerned the influence of self-reported health in the previously reported results. Participants’ stated health did not moderate any of the results. This may be because of possible narrow variation (homogeneity); that is the lack of variance did not allow significant effects to emerge. Participants in this study self-selected and data provided by participants indicated that 82% of the participants reported good or excellent health.

Participant characteristics such as education and marital status were also examined as possible moderators with findings showing no significance. Self-reported health also was found to be non-influential. Overall participants’ gender, individual characteristics, and self-reported health did not significantly influence any of the dependent variables. These findings may be reflective of the homogeneity of participants in that all participants were volunteers in the RSVP and self selected.

**Research question E.**

I was also interested in the possibility that commitment, role-identity, mastery, morale/attitudes might shape SEQ-V. As in hypotheses 6-19, the sequential (hierarchical) regression model was used to investigate this possibility. Findings indicated that these variables did not influence SEQ-V.
Supplemental Survey

The reader may recall that a Supplemental Survey (S-VASSY) was sent to participants in an effort to clarify some of the questions asked in the VASSY at Time 1 and at Time 2. The reader may also recall that all analyses reported in my research have been based on data provided by participants who responded at both Time 1 and Time 2 and who completed both the volunteer-specific outcome variables of role identity and commitment ($n = 111$). A total of 66 participants out of the 111 participants also returned the S-VASSY. The following summarizes the information provided from these 66 participants.

**Comparison of demographics of S-VASSY sample versus overall VASSY sample.**

Given that far fewer participants responded to the S-VASSY than the main study, there is a question to what extent this subset of S-VASSY participants resembles the overall sample, on which all previous analyses were based. For this purpose, I provide a descriptive comparison of the full analysis sample as well as the S-VASSY subsample. Further, I compared respondents to the S-VASSY and non-respondents to the S-VASSY on critical variables assessed on Time 1 and Time 2.

The age range of S-VASSY participants was 55 to 87 years ($M = 71$) with a slightly wider range for the overall VASSY participants the age range was 53 to 89 years ($M = 70$). Cohort distribution was similar with 62% ($n = 41$) of S-VASSY participants being in the Boomer I cohort as compared to 63% of VASSY respondents ($n = 70$). The gender distribution for S-VASSY was 70% females ($n = 46$); 30% males ($n = 20$) was
very similar to the overall VASSY of 71% females ($n = 79$); 29% males ($n = 32$).

Attainment of a college degree was also similar with 17% ($n = 11$) of S-VASSY respondents and 19% ($n = 21$) of VASSY respondents having at least an undergraduate college degree. (See Table 4 for more information regarding demographics.)

**Comparison of S-VASSY Participants versus Non-S-VASSY Participants.**

A multivariate analysis was conducted to determine if there were any significant differences between the S-VASSY respondents and the overall VASSY respondents. Age, time investment, history etc. and all continuous independent and dependent variables of previous analyses were entered into the analysis as dependent variables. No significant differences between S-VASSY respondents and non-S-VASSY respondents were found, Wilks’ $\lambda = .70$, $F(24, 66) = 1.17$, $p = .30$. In only one instance, namely with regard to differences in number of hours volunteered per month, did the univariate comparison between these two groups reach significance, $F = 5.13$, $p = .026$. This illustrates that, while there were no major difference between S-VASSY respondents and non-S-VASSY respondents, the former also contributed more hours to the volunteer organization. This difference is not of great concern because by returning the S-VASSY, S-VASSY respondents already communicated that they are more psychologically invested in their volunteer activity than non-S-VASSY participants. In brief, the significant difference in terms of time investment does not provide any new insights about the two groups.

**General characteristics.**

The majority of S-VASSY respondents were retired 83% ($n = 55$); approximately
25% had been retired for less than 1 year, about 50% for less than 8 years, about 75% were retired less than 17 years, with the remaining respondents having been retired for between 17 and 36 years (n = 15). The top three reasons why respondents retired was because they could financially afford to retire (36%); health reasons (15%); or because their job was eliminated (6%). Respondents generally thought of themselves as middle class (71%) with 8% reported being lower middle class, 8% lower class, 8% lower upper class, and 5% upper class. Most respondents indicated that they volunteered because they wanted to give back to the community (36%); because it was the right thing to do (18%), to get out of the house (18%); or to learn new things (15%). A majority of the respondents (55%; n = 36) indicated that they were thinking of their volunteering activities across their life time when they answered the VASSY Time 1 and Time 2 surveys.

A majority of respondents reported that they volunteered directly through the RSVP (60%) while others volunteered specifically for the Senior Outreach Services (32%) which is a program within the RSVP. There were a large variety of volunteering tasks (n = 25) identified by respondents ranging from providing transportation (23%), to visiting elderly adults who were alone (12%), to being a Reno/Sparks Police department volunteer (8%), to administrative tasks (8%), to sorting boxes of donations for the food bank (5%), to singing in a choir (5%) and “whatever is necessary” (5%). Further, 47% of the respondents were currently volunteering at another volunteer organization such as at their church, AARP, Children’s Cabinet, or their place of employment. Approximately 60% of respondents who were volunteering at another volunteer organization other than
RSVP had been doing so for less than 1 year. Over 20 different organizations were identified by S-VASSY respondents. Approximately 51% of respondents had volunteered for a different organization in the past but had not volunteered there since 2005.

**Inclusion-of-community-in-the-self.**

As discussed earlier the self-expansion questionnaire measures aspects of the process of self-expansion. The Inclusion-of-Community-in-the-Self (ICS) scale is a measure of the outcome of self-expansion. An implicit assumption of the process of self-expansion is that there would be a relationship between the process and the outcome of self-expansion (e.g., Mashek et al., 2007). Respondents of the S-VASSY indicated having close feelings towards the people in their choice of volunteer organization, \( M = 4.73, SD = 1.25 \) (range = 1–6). A hierarchical (sequential) regression analysis was conducted to investigate the relationship of ICS to SEQ-V at Time 1 and by SEQ-V at Time 2. In Step 1 Gender, Race, and Importance of Religion were entered. Step 2 controlled for the possible influence of time as a volunteer, the variables of History as Volunteer and Hours Month Volunteer were entered. In Step 3 I entered SEQ-V Time 1 and finally in Step 4 I entered SEQ-V Time 2. Results of this analysis indicated that ICS is significantly influenced by SEQ-V at Time 1, \( b = .56, p = .012 \), but not by SEQ-V at Time 2, \( b = -.28, p = .51 \) (see Table 20). This finding supports the assumption that the SEQ-V measure provides a window into the process of self-expansion and that the ICS provides a glance at the outcome of the self-expansion process, that is, “expandedness.”
Chapter 9 – General Discussion

Self-expansion and Older Adults

The overarching purpose of these studies was to explore the usefulness of the self-expansion model (SEM) as an enhancement to existing models of aging. Secondarily, these studies purposefully explore the viability of all six theoretically described life domains in which self-expansion may occur. The purpose of the main study was to explore self-expansion in a population of older adults engaged in volunteering over a period of time. This study builds on the findings from my pilot study by addressing the dynamic aspect of self-expansion and more deeply delves into volunteering activities as an approach for older adults to engage in self-expanding activities.

Findings from this research support the premise that self-expansion occurs in older adults. Evidence was found in the high levels of self-expansion as measured by the SEQ-V at Time 1 and at Time 2. Further, SEQ-V was found to be predictive of participants’ increases in role identity from Time 1 to Time 2 as well as of volunteers’ levels of VFI – Understanding; both of which are widely used and validated measures in research on volunteering (e.g., Charng et al., 1988; Clary et al., 1998). Implications of these findings and others are discussed in the sections below.

Volunteering as a Domain for Self-expansion in Older Adults

Although self-expansion across five theoretically identified domains was supported in my pilot study, approximately 70% of the participants were involved in volunteering (n = 89) suggesting that older adults may engage in volunteering activities as a common way to self-expand. Research has shown that older adults who volunteer
experience higher levels of well-being and are more active than older adults who do not volunteer (e.g., Morrow-Howell et al., 2003). This notion was echoed in both my pilot and main studies where participants’ self-rated health scores were above average. Further, the activity of volunteering has been specifically identified by proponents of productive aging as a method to age well (e.g., Hinterlong, 2008). Clearly, volunteering activities are important; but why do older adults engage in volunteering activities?

Research using the Volunteer Function Inventory (VFI; Clary & Snyder, 1999) has identified six functions that can serve as possible explanations; career, values, understanding, career, social or protective Proponents of the SEM might reason that it is the experience of self-expansion while engaged in volunteering activities that explains why older adults engage in volunteering regardless of the function that the activity may serve. In other words, the experience of self-expansion is not dependent on a particular function. This notion was reflected in the findings of my main study. In fact, all dimensions of the VFI were correlated significantly with the SEQ-V at both points in time yet SEQ-V was only predictive of the volunteer function of understanding (VFI-understanding). The reader may recall that the function that “understanding” serves is to allow volunteer’s to gain greater understanding. This notion coincides with the underlying premise of self-expansion which is to increase potential self-efficacy by gaining resources (i.e., gaining understanding as a resource in increasing potential self-efficacy). Perhaps individuals who engage in volunteering to gain understanding are more likely to self-expand while volunteering than those with different volunteer functions.
therefore SEQ-V was able to predict VFI- understanding but not the other functions that volunteering may serve.

**Volunteering specific outcomes.**

**Role identity.**

Perhaps most importantly, SEQ-V predicted an increase in role-identity as a volunteer. Theoretically, role identity is a key component of the self-concept (e.g., Stryker, 1980). Research examining sustained volunteerism has shown that the more an individual incorporates the role of volunteering into their self-concept the more likely the individual is to continue volunteering (e.g., Callero, 1985; Grube & Piliavin, 2000).

Further, the more salient the identity of being a volunteer is the more likely the individual is to engage in volunteering; volunteering becomes part of who the individual is and becomes what the individual does: “I am a volunteer therefore I participate in volunteering activities.”

Self-expansion helps to explain what builds that volunteer identity. Theoretically, when an individual experiences self-expansion and subsequently integrates the self-expanding experience into the self (cognitively), the individual would have increased their potential self-efficacy by increasing their resources. The affective and cognitive consequences of self-expansion would support the development of individual’s identity as a volunteer. The more an individual integrates self-expanding experiences into their self the more their self-concept would include the role identity of volunteering. The affectively positive experience of self-expansion would reinforce the volunteering activity; volunteering activities would support development of a role identity of a
volunteer.

Subsequently, increased potential self-efficacy may support involvement in trying new volunteering tasks which may broaden the individual’s sense of being a volunteer and the reinforcing cycle of self-expansion – self-concept change – role identity – increased potential self-efficacy - behavior would then continue.

Interestingly, findings of this research indicate that long term volunteers still showed an increase in role identity that was driven by self-expansion. Perhaps self-expansion influences the development of role identity early on but less so as the identity becomes more integrated into the self-concept of the volunteer. This could be the case when the salience of the role of volunteer is high but the amount or type of perceived novel or exciting tasks are not as readily available to the volunteer. Further, for those who self identify as a volunteer, the reinforcing nature of self-expansion while volunteering (positive affect), coupled with identifying oneself as a volunteer may predispose an individual to seek self-expansion in the volunteering domain.

Developing a role identity of a volunteer can be of great consequence for an older adult especially when considering the overall health and well-being that volunteering can provide (e.g., Morrow-Howell et al., 2003). Since role-identity has been shown to be highly predictive of volunteering behavior (e.g., Charng et al., 1988; Grube & Piliavin, 2000), the fact that SEQ-V was able to predict an increase in role identity over time is a crucial finding of this study. Perhaps by providing volunteers with novel or exciting activities while volunteering, volunteer organizations may more effectively and efficiently recruit and retain volunteers.
As discussed earlier, the reader may recall that role-identity is based on notions of symbolic interactionism and identity theory (e.g., Burke, 1980). This theoretical framework suggests that self-concepts are cognitively organized into role identities that are further organized hierarchically by the individual’s perception of their place in society. Further, role identities have mutually reinforcing processes: that is, the stronger a role identity becomes the more likely it is that an individual will participate in behavior in line with that role; the more the individual engages in the behavior that supports that role, the more the role identity becomes part of the individual’s self. SEM seems to provide support for the motivational underpinnings of why people develop an identity of being a volunteer. To the extent that the volunteer activity is experienced as self-expanding the identity formation would occur.

Findings from the main study show that SEQ-V predicted the role-identity of participating volunteers which reinforces the premise that an individual’s behavior is directed by the need to self-expand as defined in the SEM. In particular, an individual would continue to participate in volunteering activities to the extent that a volunteer developed a self-concept that included a role-identity such as “I am a volunteer”, which would subsequently take over in the sense that people seek out opportunities to volunteer (reinforcing the role of volunteer), and are able to maintain a stable sense of self-expansion coming from an activity. That is, the relationship between SEM and volunteering could be a reinforcing one in which participation in both the activities and the experiences of self-expansion, while participating in volunteering activities, reinforces volunteering. More specifically, to the extent that volunteering activities
provide self-expanding experiences volunteer identity is reinforced.

**Commitment to volunteering.**

Although commitment to volunteering was significantly related to SEQ-V at Time 1 and at Time 2, results from a sequential (hierarchical) regression indicated that SEQ-V did not predict commitment levels at Time 2 of data collection (see Tables 10–12). Further, levels of commitment were found to be significantly lower from Time 1 to Time 2. This change was the largest change for any of the outcome variables. This change was unexpected in light of the literature on volunteering (e.g., Chacon et al., 2007; Grube & Piliavin, 2000). Why it occurred is presently unclear, and any account of this finding is necessarily speculative. Perhaps participants felt less committed to volunteering during the second wave of data collection because of seasonal changes. Specifically, data was collected just prior to the start of the holiday season (mid-November) at Time 1 which is traditionally a festive time of goodwill, whereas Time 2 data collection was three months later. Perhaps levels of commitment waned during the cold post holiday season.

Further, there is a disconnect between the findings for role identity and the findings for commitment in the main study; although role identity was predicted by SEQ-V the same was not true of SEQ-V and levels of commitment. A decrease in commitment, in light of an increase in role identity, is somewhat puzzling. The reader may recall that commitment and role identity are volunteer specific outcome variables. Arguably, based on notions of role identity, commitment to volunteering should increase along with levels of role identity (e.g., Stryker, 1980). For instance Chacon et al. (2007) found role identity and organizational commitment to be important predictor variables of
actual time spent volunteering. Further, the relationship between role identity and commitment was relevant in the prediction of medium and long term volunteer commitment. Also, support for a relationship between levels of role identity and commitment was shown by the significant correlation between the two variables at Time 1 and at Time 2 ($r = .51, p < .001$; $r = .59, p < .001$, respectively).

A potential source of the unusual behavior of the commitment measure may lie in the present assessment itself. The reader may recall that commitment was measures using one item: “How much are you committed to continue volunteering?” This measure of commitment tapped only a very general sense of commitment and may have been too ambiguous; respondents may have interpreted this item to refer to emotional commitment rather than intent to continue volunteering. Perhaps tapping into organizational commitment rather than general commitment to volunteering by asking participants if they expect to be as active or more active in the RSVP organization a year from now would have been a better approach to the measurement of commitment to volunteering (e.g., Cachon et al., 2007). In brief, perhaps SEQ-V would have predicted any changes in commitment over time had it not been for the limitations of the single-item used to assess the commitment dimension.

**SEQ-V Levels**

Originally, I anticipated that participants would experience a significant positive increase in self-expansion from Time 1 to Time 2, but findings indicate no change occurred. However, since SEQ-V at Time 1 and Time 2 were highly correlated, $r = .82$, there may not have been a lot of room for changes to occur in the first place. Clearly,
there was not a ceiling effect. In other words, SEQ-V seems to have behaved more like a personality trait.

A stable personality trait, however, is not what SEQ-V claims to measure, nor does previous research suggest that levels of SEQ are unchangeable. Experimental research exploring the effects of falling in love, pre and post measures of self-expansion clearly showed that self-expansion changes (e.g., Aron et al., 1995) as did research in the generation of interpersonal closeness (Aron et al., 1997). Thus, the finding that SEQ-V did not change over a period be confused with there not be any potential of change. Rather, research in close personal relationships has also suggested that ongoing self-expanding experiences are necessary for continuation of long term relationships (e.g., Aron & Aron, 1996). Likewise, maintenance of high levels of self-expansion would require additional novelty or excitement while volunteering for ongoing self-expansion. From this perspective, even when levels of self-expansion seem to remain stable, this may speak less to the inherent stability of the process, but rather to stability in the supply of self-expanding experiences.

Still, it might have been desirable to demonstrate variability in SEQ-V scores over time. In this regard it is quite possible that the length of time (3 months) between administering Time 1 and Time 2 surveys may have been too short to detect any meaningful change in self-expansion in the domain of volunteering; a longer period of time in between data collection may potentially have produced greater variation. Simply put, the nature of participants’ volunteering may not have changed between Time 1 and Time 2; novel specific assignments or interactions with new people may not have
occurred. If self-expansion is largely driving by experiences with one’s social environment, and the social environment remains stable over a period of three months, it is of no surprise that levels of self-expansion do not change. Future research should examine changes in SEQ over a longer period of time or in situations when it is clear that there is a change in the amount or nature of self-expanding experience. Indeed, Aron et al. (1995) were interested in self-expansion as a function of changes in people relationship experiences when looking at breakups and falling in love.

More generally, one might question the rationale for why self-expansion should increase in the first place. The mean scores of SEQ-V reported in Table 9, point to the fact that volunteering was quite self-enriching at both points in time. If one assumes that the overwhelming number of participants in the study had been volunteers at least for several months (if not years), and if one assumes that the nature of the volunteer activity may not have changed dramatically, it is not clear why one should expect that already high levels of self-expansion would increase even more. Notwithstanding the stability of the levels of self-expansion, it is quite clear that self-expansion in volunteering was an active ingredient in psychological processes in this domain. As discussed previously, identity development as a volunteer was found to be contingent on self-expansion as was the volunteer functional of understanding for volunteers in this research. In brief, the fact that SEQ-V scores were constant over time should not be confused with that self-expansion did not occur; rather, it merely indicates that self-expansion as a process occurred with equal intensity at both points in time.
Attachment styles.

The length of time between data collection points may also have been an important factor in the findings regarding attachment styles. I have argued that the domain of volunteering may provide a safe domain for attachment avoidant individuals to engage in self-expansion. However, findings indicate that all three attachment styles were extremely stable from Time 1 to Time 2 along with levels of self-expansion from Time 1 to Time 2. In light Gillath et al. (2005) who found that avoidant attachment was related to less volunteering, less exploration, and less altruistic motives for volunteering it would be reasonable to expect that volunteers with avoidant attachment would experience less self-expansion from volunteering than secure or anxious attachment volunteers. Further, the sample size in the main study may have been too small to detect a change in attachment styles with only eight participants identified as being avoidant, five participants being anxiously attached and 54 being securely attached. Further, a majority of participants in the main study were Senior Outreach Services (SOS) volunteers within the RSVP program. The main focus of the SOS program is to provide friendship and transportation to frail, socially isolated older adults; logically it would be less likely for an avoidant attachment individual to participate. However, it would be more likely for anxiously attached individuals to seek involvement in a program such as the SOS. Nonetheless, findings indicated that there was no change across the three attachment dimensions.

Importance of religion.

Interestingly, the importance of religion had a negative yet significant predictive power in role identity at Time 2. Specifically, those who had lower importance of religion
scores had greater increases in role identity as a volunteer suggesting that when religious identity was higher, role identity of a volunteer was not as important. In research across 53 countries the social context that made salient the importance of religion had more of an effect on volunteering behavior than the actual time spent in religious services (Ruiter & De Graaf, 2006). Perhaps when a volunteer views religion as more important the volunteer’s religious identity becomes more of an influence on volunteering activity than identity as a volunteer and subsequently the underlying motivational aspect of self-expansion is of less importance to the volunteer.

**Gerontological Theory and the Self-expansion Model**

As discussed previously, gerontology remains a relative newcomer to the field of social sciences (e.g., Birren, 1959; Ferraro, 2007). Although notions of aging and the “aged” have been around for quite a while, theoretical frameworks in which to examine aging have been somewhat lacking within the area of gerontology (e.g., Whitbourne & Hulicka, 1990). Some researchers have suggested that barriers such as ageism within individuals, society, and even academia have influenced gerontological thinking and, therefore, may have inadvertently slowed down the development of new ideas (e.g., Palmore, 2005). As mentioned earlier, even contemporary notions of aging such as “successful aging” and “productive aging” suggest an implicit ageism: you must do something about your own aging process or you are destined to be decrepitly old and a burden. This assumption is perpetuated even though it is in direct conflict with the reality of many older adults as evidenced in longitudinal studies of aging such as the Duke Longitudinal Study (Busse & Maddux, 1985), the Baltimore Longitudinal Study on
Aging (BLSA; Costa & McCrae, 1993), and the Bonn Longitudinal Study of Aging (Thomae, 1990).

A goal of this research was to explore the usefulness of the SEM in gerontological inquiry. Since contemporary theories on aging continue to imply that aging is a time of disease and decline the use of the SEM could offer researchers a framework in which to gain additional perspectives on aging. Perhaps by having a perspective of aging that assumes personal growth and ongoing development, researchers may develop alternative theories on aging that explore aging as a time of personal growth and uncover aspects of aging previously unknown. This research has demonstrated that SEM is useful in a population of older adults, especially in regard to volunteering specific outcomes based on volunteering specific self-expansion. Importantly, evidence of self-expansion across all six theoretically identified was found in a sample of older adults. Not only do older adults continue to experience self-expansion they also experience it in multiple life domains suggesting that older adults are very active in the pursuit of self-expanding activities. Self-expansion while volunteering was found to be predictive of role identity as a volunteer which also supports the notion that older adults continue to grow by developing role identities. Further, results from the ICS suggest that older adults increase their potential self-efficacy by including aspects of the volunteering organization into their self. Specifically, the high levels of ICS suggest that the resources of the volunteer organization come to be seen as part of the older adult. These findings suggest that older adulthood is rich with growth and ongoing development.

At the same time, variables that would be typically regarded as life domain
“general” were not found to be significantly related such as morale. However, failure to find effects should not discourage future research since findings of this study are not representative across all populations. Since the general effects of SEM have been demonstrated, additional research exploring the usefulness of SEM in gerontological inquires is warranted.

However, there are researchers and more specifically gerontologists, who are looking at aging from a broader sense (similar to the broader scope of SEM). As discussed earlier, Carstensen (1999) explores aging with insightful research on perceptions of time (of which FTPS is one method of measuring) and how those perceptions influence behavior. Life style behaviors such as habitual exercise and engagement in activities are components of many theoretical models of aging; however Carstensen examines the “why” behind the behavior. “Why” is also an underlying theme in the self-expansion model (e.g., Aron & Aron, 1986, Aron et al., 1996). Findings from my main study show that both SEQ-V and FTPS predicted role identity. Findings from a sequential (hierarchical) regression in which both SEM and FTPS were entered in the same step, show that SEM and FTPS, though modestly correlated, were not confounded. However, SEQ-V did have slightly more power in predicting role identity than did FTPS in this population suggesting that self-expansion may be a broader construct in which to examine aging.

The reader may recall that the basic premise behind the FTPS is that behavior is more influenced by perceptions of future time than by age (Carstensen, 2006). That is, behavior is predicated on the extent to which an individual perceives time as expansive
(e.g., lots of time left in the future) or constrained (e.g., limited time) rather than the individual’s age. In the main study FTPS at Time 1 and SEQ-V at Time 1 were significantly, yet moderately, correlated; this was also the case at Time 2 with the correlation increasing slightly. Since individuals in this study chose to volunteer it is possible that the correlation between SEQ-V and FTPS reflects the influence of time perspectives and the separate influence of the desire to self-expand. This would also explain why both measures were able to predict role identity.

As mentioned in the sections above, SEM is conceptualized as a state of being rather than a trait (e.g., changes in self-expansion experimentally generated by Aron et al., 1996). That is, self-expansion is a reflection of a particular experience and process as associated with a domain of life. To the extent that the experience or domain changes, self-expansion should change as well. Although FTPS assumes that perceptions of time rather than age influence behavior, mortality is inevitable and it is likely that eventually time will be perceived as short, therefore FTPS may be more of a trait-like rather than state-like concept. On the other hand, FTPS cannot be completely trait-like because theoretically FTPS should go down as an individual perceives the end of their life approaching (e.g., Lang & Carstensen, 2002). In other words, perceptions of future time may reflect a more stable rather than a fluctuating state of mind. This distinction may explain why both SEM and FTPS were able to predict changes in role identity.

Ageism.

Surprisingly, participants’ attitudes toward their own aging were not significantly correlated to SEQ-V scores neither at Time 1 nor at Time 2. This is in opposition to the
argument that an individual’s own negative attitudes towards aging would prevent self-expansion. Perhaps the motive to self-expand is so strong that negative attitudes are not as influential in guiding volunteering behaviors. This notion is further supported, at least is this sample, by the finding that positive attitudes toward own aging significantly decreased over the time of this study, yet SEQ-V levels were largely maintained.

Further, findings from a sequential (hierarchical) regression that tested hypotheses 6, attitudes toward own aging were not predictive of SEQ-V at Time 2. These results indicated that there is not a relationship between participants’ attitude toward their own aging and self-expansion. An individual can engage in self-expansion regardless of how they feel about their own aging. Since negative attitudes toward one’s own aging have been found to be a strong predictor of negative health outcomes it is encouraging to find that attitudes towards own aging has little effect on self-expansion, at least in this population of older adults.

Further findings from this study indicated that self-reported health did not influence self-expansion, role identity, commitment levels or any of the indicators commonly implicated in successful aging or productive aging. This could be that volunteers compare themselves to others that they encounter while volunteering and evaluate their health in comparison to more frail others, rather than of an objective feeling of their own healthiness. However, the single-item self-reported health measure has shown to have significant reliability and validity; therefore, it appears health does not play as important of a part in the self-expansion of this population of older adults.
Expanding the Self-expansion Model

The studies described in this dissertation are the first non-romantic studies of self-expansion and are the first studies to focus entirely on a sample population of adults aged 50 or older. These studies have demonstrated that the SEM is useful. The SEM predicts identity development; indeed, it may provide a core motivational mechanism as to why people develop particular identities in domains in which they are engaged. Future research exploring this particular dynamic in domains other than volunteering such as how people develop hobbies and become identified with their choice of hobby could be interesting. Future research using the SEM to explore how people make academic choices may also be intriguing. For instance, development of a particular academic identity may be influenced by the level of self-expansion experienced by the individual as the individual progresses through a particular subject area, with self-expansion helping to shape the level of identity and investment in a particular field.

Also it is important to note that findings from the main study found no clear evidence that self-expansion works differently for novice vs. longtime volunteers, although future studies might examine whether the influence of self-expansion on the establishment of a volunteer identity is stronger for novices. For long-time volunteers, likely there are other social forces which enable stable levels of self-expansion and identity as a volunteer might be linked to established routines and social networks that may keep their own voluntarism in place, whereas for novices such structure may be less likely to exist. In other words, in particular, novices should stick with volunteering to the extent that they get something out of it, where this aspect might be less central for long
time volunteers though self-expansion is still important.

Although self-expansion may be a very general process this research also demonstrated that it operates in domain specific ways. Specifically, these findings have shown that domain specific self-expansion has domain specific consequences (SEQ-V predicted role identity); however, no evidence for generalized effects of SEM were found (SEQ-V was not predictive of morale, attitudes toward own aging, nor mastery). Since an underlying premise of the SEM is the motivation to increase potential self-efficacy rather than actual state levels of self-efficacy, perhaps measures that focus on the current “state” of morale, attitudes toward own aging, or mastery are not sensitive enough to capture small fluctuations of change.

Although the Inclusion of Other in Community Scale (Mashek et al., 2006) was only included in the S-VASSY, the findings of this measure are noteworthy. Specifically this study was the first to find support for the outcome of self-expansion in a population of older adults as evidenced by the high mean score of the ICS. Further, SEQ-V Time 1 was found to be predictive of participants’ increases in role identity and to be predictive of volunteers’ levels of VFI – Understanding – both of which are widely used and validated measures in research on volunteering (e.g., Charng et al., 1988). These findings suggest that indeed, self-expansion leads to self-expandedness, at least in the population of older adult volunteers in this study.

**Limitations**

There were several limitations to the present study. Most notably, the sample consisted of self-selected participants who were participants actively volunteering in
northern Nevada based RSVP organizations; it cannot be known if active volunteers who did not participate in this study share the same characteristics as those who participated.

In addition, this study relied on participants’ responses to a survey without face-to-face interaction. Also, surveys generally need to be short – which limits the type of measures that can be used. Plus it is possible that someone other than the intended older adult filled out surveys. Survey research has shown that social desirability may influence respondents’ answers therefore, it is also possible that completion of the surveys in the privacy of the participants chosen location could have resulted in more honest answers.

Another drawback of using surveys was that I was unable to get missing data, which ultimately lead to a reduced sample size of 111 as opposed to 130 which would have added more power to my analyses. Further, anticipated recruitment lagged behind my expectations, a larger sample size might have helped to uncover more nuances of self-expansion. This is especially true since I relied on multivariate analysis in many of my analyses. Further, since multivariate analysis is complex, requires larger sample sizes, and can result in ambiguous findings caution should be used in the interpretation of my results (e.g., Tabachnick & Fidell, 1996).

Another limitation to this research is that the main study did not directly address the issue of whether volunteering actually occurred during the time in between collection points. The reader may recall that volunteers’ reported hours were higher than the RSVP reported hours although highly correlated. Therefore; participation in volunteering activities has been assumed to occur based on hours spent volunteering as reported by the participants. That is, there is an assumption that participants really did volunteer during
the specific time period between data collection points. The use of diaries or journals to track volunteer experiences would have resolved this issue.

Further, this research was not experimental; therefore, true causal effects could not be assessed. Also, there were low reliabilities for some of my measures which suggest that they were not adequately measuring the constructs of interest. For instance, Cronbach’s alpha reliabilities for the Big 5 personality measure were very low. Although the Big 5 is convenient for mail surveys because of its length, it may not have adequately measured personality traits of participants. And as discussed earlier the single-item measurement of commitment appears to have been an inadequate measure of commitment.

**Implications.**

This research has many implications in light of the fact that it is the first to: 1) establish the applicability of the self-expansion model in a population of older adults; 2) establish viability of the self-expansion questionnaire (SEQ, Lewandowski & Aron, 2002) in theoretically identified life domains; 3) implicate self-expansion as an underlying motivation for development of volunteer role identity.

**Volunteer organizations and role identity**

Although volunteering can serve many different functions for older adults, an underlying need to experience self-expansion and expandedness continues to be a core motivation throughout the lifespan. The relationship between volunteer role identity and self-expansion suggests that incorporation of self-expanding activities into volunteer training and orientation workshops would allow for greater self-expansion and greater
identity as a volunteer. Volunteer organizations that provide volunteers with opportunities to experience novel and exciting activities may be more successful in recruitment and retention of volunteers because of the potential reinforcing nature of the self-expanding experience, role identity development, and actual participation in volunteering activities. Finally, many of the participants in this study felt close to others in the volunteer organization that they were currently active in as evidenced by the ICS. In research exploring self-expansion in close personal relationships the inclusion-of-other-in-self has been used as an indicator of self-expansion or “expandedness”. The ICS is an indicator of self-expansion in community or group relations. Theoretically, individuals increase their sense of potential self-efficacy by including the resources (e.g., status, reputation) of the group or community (i.e., RSVP) into their self. Volunteer organizations should insure that volunteers have opportunities to interact with others within the organization and to view the organization a valuable and supportive entity.

Based on the findings from this research, volunteer organizations need to be aware that older adults are continually engaged in ongoing growth. To mistakenly believe that older adults engaged in volunteer activities do so out of boredom or as a strategy to age “productively” or “successfully” could be deleterious to recruitment and retention. An awareness that older adults are still actively engaged in personal development may assist in the design of volunteer training programs and tasks to insure that both the older adult and those involved in the volunteer organization fully benefit.

Future research

Generalizability of the findings of this study are limited to the population studied,
however, findings do provide intriguing questions and fodder for future research. For instance although the SEQ was found to be a viable measure of self-expansion in older adults actively involved in volunteering, it would be interesting to discover if the SEQ across life domains (see pilot study) would be applicable to psychology 101 students as this is the population most frequently used in the literature. The SEQ could be completed by younger populations, including college students. Comparison of student scores to older adult scores, especially in the area of volunteering would be very interesting. Theoretically, self-expansion via volunteering activities should be just as relevant for younger adults who are engaged in volunteering (e.g., AmeriCorps, VISTA volunteers).

Further, it would be interesting to see which other life domains younger adults were involved in. The reader may recall that the modified SEQ used in the pilot study instructed participants to skip sections that were not applicable to them. Younger adults may be also involved in self-expansion concurrently as was the older adults who participated in the pilot study. The population of UNR younger adults and the older adults who participated in the pilot study are biased groups since both are actively engaged in higher education. Including a population of non-university young adults and older adults via the internet would also be valuable in the establishment of the modified SEQ and aid in the substantiation of self-expansion in a variety of life domains.

**Experimental approach.**

Use of an experimental approach that assigns participants to various volunteering activities designed to provide various levels of novelty and excitement would yield data valuable to designing volunteer programs. Data could be collected over the semester and
participants could be required to report their hours spent volunteering and keep a daily journal of their experiences while volunteering.

**Domains of self-expansion.**

Another direction for research on self-expansion would be to explore self-expansion in other life domains. Replication of the findings in my pilot study with a sample of younger adults would assist in the development of the SEM and provide insight as to younger adults’ strategies to experience self-expansion outside of the traditionally researched domain of close personal relationships.

**Conclusions**

Self-expansion in older adults exists; older adults can and do actively engage in the process of self-expansion and do experience the outcomes of self-expansion (i.e. expandedness). Although the SEM has been largely used in the field of close personal relationships, this research shows that application of the SEM in other domains is warranted and that gerontological inquiries may also benefit from use of the self-expansion model.

Since the SEM has previously been almost exclusively used in research focused on close relationships there are ample opportunities for future research. Exploring the application of SEM across theoretically identified domains of self-expansion; as well as exploring implications of the SEM in the processes of identity formation are just a few directions for future research. More specific to gerontological inquiry and the activity of volunteering, future research exploring SEM in a larger sample population of older adult volunteers and non-volunteers would provide an opportunity to further build on the
findings of this research.

Application of the self-expansion model of motivation and cognition to research in aging may help prompt a paradigm shift within the field. Researchers may seek to explore aspects of growth and personal development in older adults rather than exploring ways to avoid aging.
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Benjamin-Cummings.


Appendix A

Recruitment Script for Pilot Study

Dear Volunteers:

I am grateful to Carole Anderson for letting me speak with you today. Thank you for the opportunity to talk with you today and thank-you for all of the wonderful work you do. My name is Susan Harris. I am a doctoral candidate in the University of Nevada, Reno, Interdisciplinary Social Psychology Ph.D. program and I would like to invite you to participate in a longitudinal research study that is a part of my dissertation work.

Participation in this research would consist of completing a survey about your volunteering experience twice with 3 months in between each completed survey. This will allow us to see how your volunteering experience may have changed over time. This is the best way for us to understand changes over time. We will need to collect contact information in order to contact you a second time. We will send you another survey three months after we receive your first survey to the address that you provide. Your questionnaire responses will be kept strictly confidential and never will be associated with any identifying information. The survey is about adults’ aged 50 and over volunteer experience. Participation in this survey is absolutely voluntary. If you choose to not participate it is okay for you to leave now. It is also okay if you think you want to participate, but change your mind. The survey should take approximately 35 minutes to complete, therefore, you may complete it at home and mail it back to us in the pre-addressed, pre-stamped envelope attached to the survey. You may skip any item that you do not want to answer. Please keep in mind that this survey is confidential. If you should decide to participate, please return the completed survey to researchers within four weeks from today. There is also a pre-addressed, pre-stamped
postcard with a lottery ticket on one side that is included with your survey. All participants of our survey are invited to enter our lottery each time they receive a survey. If you want to win one of six $50 prizes, please fill in the entry postcard and mail it separately from your survey. You may choose to participate in the lottery but not in the survey. Six lottery winners will be randomly chosen within 4 weeks of receipt of the completed second surveys from participants. Please feel free to ask any questions. The surveys are available at the exit doors please take one if you think you may want to participate. You can start as soon as you receive your copy or take your copy home to complete and mail it back to us. Please complete the survey within four weeks of receipt. If you should need an additional copy please feel free to contact me at 784-4774 and I will mail another survey to you. There will also be extra copies available at the Sanford Center for Aging. Thank-you.
Appendix B

Recruitment Script for VASSY Study

Dear Volunteers:

I am grateful to <name of volunteer program’s representative> be able to speak with you today. Thank you for the opportunity to talk with you today and thank-you for all of the wonderful work you do. My name is Susan Harris. I am a doctoral candidate in the University of Nevada, Reno, Interdisciplinary Social Psychology Ph.D. program and I would like to invite you to participate in a longitudinal research study that is a part of my dissertation work. Participation in this research would consist of completing a survey about your volunteering experience twice with 3 months in between each completed survey. This will allow us to see how your volunteering experience may have changed over time. This is the best way for us to understand changes over time. We will need to collect contact information in order to contact you a second time. We will send you another survey three months after we receive your first survey to the address that you provide. Your questionnaire responses will be kept strictly confidential and never will be associated with any identifying information. The survey is about adults’ aged 50 and over volunteer experience. Participation in this survey is absolutely voluntary. If you choose to not participate it is okay for you to leave now. It is also okay if you think you want to participate, but change your mind. The survey should take approximately 35 minutes to complete, therefore, you may complete it at home and mail it back to us in the pre-addressed, pre-stamped envelope attached to the survey. You may skip any item that you do not want to answer. Please keep in mind that this survey is confidential. If you should decide to participate, please return the completed survey to researchers within four weeks from
today. There is also a pre-addressed, pre-stamped postcard with a lottery ticket on one side that is included with your survey. All participants of our survey are invited to enter our lottery each time they receive a survey. If you want to win one of six $50 prizes, please fill in the entry postcard and mail it separately from your survey. You may choose to participate in the lottery but not in the survey. Six lottery winners will be randomly chosen within 4 weeks of receipt of the completed second surveys from participants. Please feel free to ask any questions. The surveys are available at the exit doors please take one if you think you may want to participate. You can start as soon as you receive your copy or take your copy home to complete and mail it back to us. Please complete the survey within four weeks of receipt. If you should need an additional copy please feel free to contact me at 784-4774 and I will mail another survey to you. There will also be extra copies available at the Sanford Center for Aging. Remember, participation in this research is strictly voluntary; participation or declining participation will not affect your status as a volunteer in the volunteer programs; the Retired and Seniors Volunteer Program, the Seniors Outreach Services, and the Legacy Corp volunteer programs at the Sanford Center for Aging are not involved with this research study. Thank-you.
Appendix C

VASSY Survey 1

Hello!

Are you interested in participating in a research study designed to help researchers gain a better understanding of volunteering activities of adults over the age of 50?

If you agree to participate in our research:

1st Complete the attached Volunteers’ Satisfaction Survey (takes about 35 minutes)

2nd Return it to us in the attached pre-addressed, postage paid envelope.

3rd To be eligible to win one of $50.00 cash prizes, simply fill in the pre-addressed, postage paid lottery postcard provided with your survey and mail it to us separately from the survey. You may choose to participate in the lottery but not in the survey.

In about 3 months you will receive your second survey by U.S. mail.

4th Complete the second Volunteers’ Satisfaction Survey received by you in the U.S. mail (takes about 35 minutes)

5th Return it to us in the attached pre-addressed, postage paid envelope.

6th To enter the lottery again, simply fill in the pre-addressed, postage paid lottery postcard provided in your second survey and mail it to us separately from the survey. You may choose to participate in the lottery but not in the survey.

All received lottery tickets will be placed in a hat and six winners will be drawn randomly. Tickets will be shredded after the winners have received their prizes via certified US mail. For more information please contact Susan Harris at 784-4774. Thank-you!
Welcome to the

Volunteer Activity Satisfaction Survey (VASSY)

A. INTRODUCTION

1. Thank you for agreeing to participate in this study. Your answers to this Volunteers’ Activity Satisfaction Survey (VASSY) will give us information that can be used to gain a better understanding of the experience of volunteering for adults over the age of 50.

2. This research is longitudinal, that is we would like you to complete this survey twice with 3 months in-between each completed survey. This will allow us to see how your volunteering experience may have changed over time. This is the best way for us to understand changes over time.

3. We will need to collect contact information in order to contact you a second time.

4. Three months after we receive your first survey we will send you the second survey to the address that you provide.

5. Your questionnaire responses will be kept strictly confidential and will never be associated with any identifying information.
6. Please answer all the questions as accurately and honestly as possible. If you should get tired please feel free to take a break. You have up four weeks to complete the survey and to return it to us. You will be mailed another survey in approximately three months. You are eligible to win one of six $50.00 cash prizes. One lottery ticket will be included with each survey.

7. If you have any questions or do not understand a question, feel free to call us, Susan Harris, at (775) 784-7557 or Markus Kemmelmeier, at (775) 784-1287. If you do not want to answer a question, you do not have to, and you can stop the survey at any time. The survey should take approximately 35 minutes to complete. Please feel free to take breaks if you get tired. Please return the survey in the pre-addressed, postage paid envelope provided in this packet. The results of this survey will be reported on a group basis rather than on an individual basis therefore your name or identity will not be known from the results. Please put your name and address on the third page of the survey only.

8. Once we receive your completed survey the page with your name and address on it will be separated from your completed survey and a unique number will be assigned to your survey. The unique number will be the only source of identification.

9. If you choose to enter our lottery for a chance to win one of six $50.00 cash prizes, please fill in your name and address on the pre-addressed, postage paid postcard which is enclosed in this packet.

10. You may ask about your rights as a research subject or you may report (anonymously if you so choose) any comments, concerns, or complaints to the University of Nevada, Reno Social Behavioral Institutional Review Board, telephone number (775) 327-2368, or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall/331, University of Nevada, Reno, Reno, Nevada, 89557. Thank you.
CONFIDENTIAL

INSTRUCTIONS: Please fill in the following information. Please print clearly. We will use this information exclusively to mail you a reminder card two months after we receive your completed survey and to mail your second survey to you. Responses to questions will never be associated with any identifying information and each survey will only be identified by a code number.

CONFIDENTIAL

Your Name: ____________________________
(Fist) ____________________________ (Last) ____________________________

Your Mailing Address: ____________________________
(Street) ____________________________

(City) ____________________________ (State) ____________________________

(Zip Code) ____________________________

Page 3
B. QUESTIONS ABOUT YOUR SELF

INSTRUCTIONS: Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

I see myself as:

1)_____ Extraverted, enthusiastic. 6)_____ Reserved, quiet.
2)_____ Critical, quarrelsome. 7)_____ Sympathetic, warm.
3)_____ Dependable, self-disciplined 8)_____ Disorganized, careless.
4)_____ Anxious, easily upset. 9)_____ Calm, emotionally stable.
5)_____ Open to new experiences, complex. 10)_____ Conventional, uncreative.

INSTRUCTIONS: Please read the following statements and decide how strongly you disagree or agree with these statements about yourself. It is important for you to realize there is no "right" or "wrong" answer to these questions. People are different and we are interested in how you feel. Record your answer in the space next to each item.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

1)_____ There is really no way I can solve problems I have.
2)_____ Sometimes I feel that I am being pushed around in life.
3)_____ I have little control over the things that happen to me.
4)_____ I can do just about everything I set my mind to do.
5)_____ I often feel helpless in dealing with the problems of life.
6)_____ What happens to me in the future mostly depends on me.
7)_____ There is little I can do to change many of the important things in my life.
INSTRUCTIONS: Using the scale shown below, please respond to each of the following statements according to how you would usually describe yourself. There is no right or wrong answer. For each item, write the number of the response that best describes to you next to the item’s number:

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<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
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1)____ I would describe myself as someone who actively seeks as much information as I can in a situation.
2)____ When I am participating in an activity, I tend to get so involved that I lose track of time.
3)____ I frequently find myself looking for new opportunities to grow as a person (e.g., information, people, resources).
4)____ I am not the type of person who probes deeply into new situations or things.
5)____ When I am actively interested in something, it takes a great deal to interrupt me.
6)____ My friends would describe me as someone who is "extremely intense" when in the middle of doing something.
7)____ Everywhere I go, I am out looking for new things or experiences.

INSTRUCTIONS: Please indicate your response by placing an “x” on the line next to your answer.

YES___ NO___ 1. Things keep getting worse as I get older.
YES___ NO___ 2. I have as much pep as I had last year.
Not much_____ A lot____ 3. How much do you feel lonely?
YES___ NO___ 4. Little things bother me more this year.
YES___ NO___ 5. I see enough of my friends and relatives.
YES___ NO___ 6. As you get older, you are less useful.
YES___ NO___ 7. I sometimes worry so much that I can’t sleep.
Better_____ Worse____ 8. As I get older, things are (better/worse) than I thought they would be.
YES___ NO___ 9. I sometimes feel that life isn’t worth living.
Participant #____________________

YES  NO  10. I am as happy now as I was when I was younger.
YES  NO  11. I have a lot to be sad about.
YES  NO  12. I am afraid of a lot of things.
YES  NO  13. I get mad more than I used to.
YES  NO  14. Life is hard for me much of the time.
Satisfied  Not satisfied  15. How satisfied are you with your life today?
YES  NO  16. I take things hard.
YES  NO  17. I get upset easily.

INSTRUCTIONS: Using the 5-point scale below please read each of the following statements and decide how much you agree with each according to your attitudes, beliefs, and experiences. It is important for you to realize that there is no "right" or "wrong" answers to these questions. People are different, and we are interested in how you feel. Record your answer in the space next to each item.

1  Somewhat disagree  2  Neither agree nor disagree  3  Somewhat agree  4  Strongly agree

1)____  It upsets me to go into a situation without knowing what I can expect from it.
2)____  I'm not bothered by things that interrupt my daily routine.
3)____  I enjoy having a clear and structured mode of life.
4)____  I like to have a place for everything and everything in its place.
5)____  I enjoy being spontaneous.
6)____  I find that a well-ordered life with regular hours makes my life tedious.
7)____  I don't like situations that are uncertain.
8)____  I hate to change my plans at the last minute.
9)____  I hate to be with people who are unpredictable.
10)____  I find that a consistent routine enables me to enjoy life more.
11)____  I enjoy the exhilaration of being in unpredictable situations.
12)____  I become uncomfortable when the rules in a situation are not clear.
INSTRUCTIONS: Using the 5-point scale below please read each of the following statements and rate the extent to which it describes your feelings about close relationships. Please think about all your relationships (past and present) and respond in terms of how you generally feel in these relationships. If you have never been in a romantic relationship, answer in terms of how you think you would feel. Record your answer in the space next to each item.

1. _____ I find it relatively easy to get close to others.
2. _____ I do not worry about being abandoned.
3. _____ I find it difficult to allow myself to depend on others.
4. _____ In relationships, I often worry that my partner does not really love me.
5. _____ I find that others are reluctant to get as close as I would like.
6. _____ I am comfortable depending on others.
7. _____ I do not worry about someone getting too close to me.
8. _____ I find that people are never there when you need them.
9. _____ I am somewhat uncomfortable being close to others.
10. _____ In relationships, I often worry that my partner will not want to stay with me.
11. _____ I want to merge completely with another person.
12. _____ My desire to merge sometimes scares people away.
13. _____ I am comfortable having others depend on me.
14. _____ I know that people will be there when I need them.
15. _____ I am nervous when anyone gets too close.
16. _____ I find it difficult to trust others completely.
17. _____ Often, partners want me to be closer than I feel comfortable being.
18. _____ I am not sure that I can always depend on others to be there when I need them.
INSTRUCTIONS: In order to indicate your agreement with the statements below, please use the following scale. Record your answer in the space next to each item.

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<th>Not at all accurate</th>
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<th>Somewhat accurate</th>
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1)____ Many opportunities await me in the future.
2)____ I expect that I will set many new goals in the future.
3)____ My future is filled with possibilities.
4)____ Most of my life lies ahead of me.
5)____ My future seems infinite to me.
6)____ I could do anything I want in the future.
7)____ There is plenty of time left in my life to make new plans.
8)____ I have the sense that time is running out.
9)____ There are only limited possibilities in my future.
10)____ As I get older, I begin to experience time as limited.

C. VOLUNTEERISM

Volunteering program that you are a volunteer (check all that apply):

☐ Senior Outreach Services  How many hours per month? ____

☐ Legacy Corp Respite Care  How many hours per month? ____

☐ Retired & Seniors Volunteer Program (RSVP)  How many hours per month? ____

☐ RSVP Special Events Only  How many hours per month? ____

If “RSVP Special Events only”, please indicate which special events:
**INSTRUCTIONS:** Answer each question according to the way you personally feel about volunteering, using the following scale. Please place your answer in the space next to each item.

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<td>A moderate amount/somewhat</td>
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1) _____ How much does being a volunteer result in your having new experiences?
2) _____ When you are volunteering, do you feel a greater awareness of things because of your volunteer work?
3) _____ How much does volunteering increase your ability to accomplish new things?
4) _____ How much does being a volunteer make you more competent to volunteer at other potential volunteering organizations?
5) _____ How much does being a volunteer help to expand your sense of the kind of person you are?
6) _____ How much do you find being a volunteer as a way to expand your own capabilities?
7) _____ Do you often learn new things while volunteering?
8) _____ How much does volunteering provide a source of exciting experiences?
9) _____ How much does the strength of your volunteering activities (skills, abilities, etc. learned while being a volunteer) compensate for some of your own weaknesses as a person? (For example, being a volunteer has helped you to overcome your shyness.)
10) _____ How much do you feel that you have a larger perspective on things because of volunteering?
11) _____ How much has volunteering resulted in your learning new things?
12) _____ How much has volunteering made you a better person?
13) _____ How much does being a volunteer increase the respect other people have for you?
14) _____ How much does being a volunteer increase your knowledge?
15) _____ How much are you committed to continue volunteering?
16) _____ How long have you been a volunteer? _____ years; _____ months
17) _____ Being a volunteer is not very important to me.
18) _____ Volunteering is something that I rarely think about.
19) _____ I would feel a loss if I were forced to give up volunteering.
20) I really don’t have any clear feelings about volunteering.
21) For me, being a volunteer means more than just volunteering.
22) Volunteering is an important part of who I am.
23) I strongly identify with my volunteer experience.
24) One year from now, will you be (please check the box next to your best guess as of today):
   □ volunteering at this organization.
   □ volunteering at another organization
   □ not volunteering at all.

INSTRUCTIONS: Using the 5-point scale below, please indicate how important or accurate each of the following possible reasons for volunteering is for you in doing volunteer work at this organization. Record your answer in the space next to each item.

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1) Volunteering can help me get my foot in the door at a place where I’d like to work.
2) My friends volunteer.
3) I am concerned about those less fortunate than myself.
4) People I’m close to want me to volunteer.
5) Volunteering makes me feel important
6) People I know share an interest in community service.
7) No matter how bad I’ve been feeling, volunteering helps me to forget about it.
8) I am genuinely concerned about the particular group I am serving.
9) By volunteering, I feel less lonely.
10) I can make new contacts that might help my business career.
11) Doing volunteer work relieves me of some of the guilt over being more fortunate than others.
12) I can learn more about the cause for which I am working.
13) Volunteering increases my self-esteem.
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16) ___ I feel compassion toward people in need.
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22) ___ I can do something for a cause that is important to me.
23) ___ Volunteering is an important activity to the people I know best.
24) ___ Volunteering is a good escape from my own troubles.
25) ___ I can learn how to deal with a variety of people.
26) ___ Volunteering makes me feel needed.
27) ___ Volunteering makes me feel better about myself.
28) ___ Volunteering experience will look good on my resume.
29) ___ Volunteering is a way to make new friends.
30) ___ Through volunteering I can explore my own strengths.

D. DEMOGRAPHICS

Remember all information provided by you in this survey is STRICTLY CONFIDENTIAL. Once this survey is received by researchers, a unique number will be assigned to it. The page that has your name and address on it will be detached and filed in a locked file cabinet in which only the specified researchers have a key. The only time your name and address will be used is to mail you a reminder card for the second survey and to mail you the second survey.

INSTRUCTIONS: Please place a check mark in the box next to your answer.

1). Sex/Gender
   □ Male   □ Female

2). What is your racial identification (mark all that apply)?
   □ Asian/ Pacific Islander  □ Hispanic/ Latino
   □ American Indian/ Alaska  □ White/ Caucasian
   □ Native                   □ Other: __________________
   □ Black/ African American
3). What is your religious affiliation (mark all that applies)?

- Agnostic
- Atheist
- Baptist
- Christian
- Catholic
- Jewish
- Methodist
- Muslim
- Presbyterian
- Protestant
- Other, specify: ________________

4). Year of your birth: ________________

5). What is your marital status?

- Married, living jointly
- Married, living separately
- Single, never married
- Separated
- Divorced
- Widowed
- Other

a) How many years married? (if more than one marriage indicate total years of combined marriages) _______

6). What is the highest level of education you completed (check one answer only)?

- Some High School
- High School Diploma or equivalent (GED)
- Trade School
- Some College
- Associates Degree
- Bachelors Degree
- Graduate Degree

7). How would you rate your overall health (check one answer only)?

- Poor
- Fair
- Good
- Excellent

8). Do you live with anyone (check as many answers as applicable)?

- No, I live alone
- Yes, related (Number: _____)
- Yes, unrelated (Number: ____ )
9). Generally speaking people are frequently thought of as "being a liberal" or "being a conservative." How would you place your views on this scale? Please circle one number.

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<tbody>
<tr>
<td>Liberal</td>
<td>Somewhat Liberal</td>
<td>Middle of the Road</td>
<td>Somewhat Conservative</td>
<td>Conservative</td>
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</table>

10). How important is religion in your life? Please circle the number that best represents the importance of religion in your life.

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<tbody>
<tr>
<td>Very unimportant</td>
<td>Somewhat unimportant</td>
<td>Neither important nor unimportant</td>
<td>Somewhat important</td>
<td>Very important</td>
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YOU ARE FINISHED!
THANK YOU FOR YOUR HELP!!!!!!!

Please mail this completed survey in the self-addressed, postage paid envelope provided in your packet. If you have misplaced the envelope please contact Sue Harris at 784-7557 and a replacement envelope will be mailed to you.

REMEMBER TO MAIL IN YOUR LOTTERY POSTCARD FOR A CHANCE TO WIN ONE OF SIX $50 CASH PRIZES.

IN APPROXIMATELY THREE MONTHS FROM THE TIME WE RECEIVE YOUR SURVEY THE SECOND SURVEY WILL BE MAILED TO THE ADDRESS YOU PROVIDED.

Thank-you!
Appendix D

VASSY Survey 2

Welcome back!

2nd Volunteer Activity Satisfaction Survey (VASSY)

A. INTRODUCTION

1. Thank you again for agreeing to participate in this study. Your answers to this 2nd Volunteers’ Activity Satisfaction Survey (VASSY) will give us information that can be used to gain a better understanding of the experience of volunteering for adults over the age of 50.

2. This research is longitudinal, and this is your second survey. You will not be receiving another survey after this one.

3. Your questionnaire responses will be kept strictly confidential and will never be associated with any identifying information.
Participant # XXXX

4. Please answer all the questions as accurately and honestly as possible. If you should get tired please feel free to take a break. You have up four weeks to complete the survey and to return it to us. You are eligible to win one of six $50.00 cash prizes. One lottery ticket is included with each survey.

5. If you have any questions or do not understand a question, feel free to call us, Susan Harris, at (775) 784-7557 or Markus Kemmelmeier, at (775) 784-1287. If you do not want to answer a question, you do not have to, and you can stop the survey at any time. The survey should take approximately 35 minutes to complete. Please feel free to take breaks if you get tired. Please return the survey in the pre-addressed, postage paid envelope provided in this packet. The results of this survey will be reported on a group basis rather than on an individual basis therefore your name or identity will not be known from the results. Please so not put your name or address on any page of this survey.

6. If you choose to enter our lottery for a chance to win one of six $50.00 cash prizes, please fill in your name and address on the pre-addressed, postage paid postcard which is enclosed in this packet.

7. You may ask about your rights as a research subject or you may report (anonymously if you so choose) any comments, concerns, or complaints to the University of Nevada, Reno Social Behavioral Institutional Review Board, telephone number (775) 327-2368, or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall/331, University of Nevada, Reno, Reno, Nevada, 89557. Thank you.
B. **QUESTIONS ABOUT YOUR SELF**

**INSTRUCTIONS:** Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

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<tr>
<td></td>
<td>Strongly disagree</td>
<td>Somewhat disagree</td>
<td>Neither agree nor disagree</td>
<td>Somewhat agree</td>
<td>Strongly agree</td>
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I see myself as:

1) ____ Extraverted, enthusiastic.
2) ____ Critical, quarrelsome.
3) ____ Dependable, self-disciplined.
4) ____ Anxious, easily upset.
5) ____ Open to new experiences, complex.
6) ____ Reserved, quiet.
7) ____ Sympathetic, warm.
8) ____ Disorganized, careless.
9) ____ Calm, emotionally stable.
10) ____ Conventional, uncreative.

**INSTRUCTIONS:** Please read the following statements and decide how strongly you disagree or agree with these statements about yourself. It is important for you to realize there is no “right” or “wrong” answer to these questions. People are different and we are interested in how you feel. Record your answer in the space next to each item.

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<td>Strongly agree</td>
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</table>

1) ____ There is really no way I can solve problems I have.
2) ____ Sometimes I feel that I am being pushed around in life.
3) ____ I have little control over the things that happen to me.
4) ____ I can do just about everything I set my mind to do.
5) ____ I often feel helpless in dealing with the problems of life.
6) ____ What happens to me in the future mostly depends on me.
7) ____ There is little I can do to change many of the important things in my life.
INSTRUCTIONS: Using the scale shown below, please respond to each of the following statements according to how you would usually describe yourself. There is no right or wrong answer. For each item, write the number of the response that best describes to you next to the item’s number:

1) _____ I would describe myself as someone who actively seeks as much information as I can in a situation.
2) _____ When I am participating in an activity, I tend to get so involved that I lose track of time.
3) _____ I frequently find myself looking for new opportunities to grow as a person (e.g., information, people, resources).
4) _____ I am not the type of person who probes deeply into new situations or things.
5) _____ When I am actively interested in something, it takes a great deal to interrupt me.
6) _____ My friends would describe me as someone who is “extremely intense” when in the middle of doing something.
7) _____ Everywhere I go, I am out looking for new things or experiences.

INSTRUCTIONS: Please indicate your response by placing an “x” on the line next to your answer.

YES  NO
1. Things keep getting worse as I get older.
YES  NO
2. I have as much pep as I had last year.
Not much A lot
3. How much do you feel lonely?
YES  NO
4. Little things bother me more this year.
YES  NO
5. I see enough of my friends and relatives.
YES  NO
6. As you get older, you are less useful.
YES  NO
7. I sometimes worry so much that I can’t sleep.
Better Worse
8. As I get older, things are (better/worse) than I thought they would be.
YES  NO
9. I sometimes feel that life isn’t worth living.
Participant # XXXX

YES ___ NO ___
10. I am as happy now as I was when I was younger.

YES ___ NO ___
11. I have a lot to be sad about.

YES ___ NO ___
12. I am afraid of a lot of things.

YES ___ NO ___
13. I get mad more than I used to.

YES ___ NO ___
14. Life is hard for me much of the time.

Satisfied ___ Not satisfied ___
15. How satisfied are you with your life today?

YES ___ NO ___
16. I take things hard.

YES ___ NO ___
17. I get upset easily.

INSTRUCTIONS: Using the 5-point scale below please read each of the following statements and decide how much you agree with each according to your attitudes, beliefs, and experiences. It is important for you to realize that there is no "right" or "wrong" answers to these questions. People are different, and we are interested in how you feel. Record your answer in the space next to each item.

<table>
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<tr>
<th>Number</th>
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<tbody>
<tr>
<td>1</td>
<td>Strongly disagree</td>
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<tr>
<td>2</td>
<td>Somewhat disagree</td>
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<tr>
<td>3</td>
<td>Neither agree nor disagree</td>
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<tr>
<td>4</td>
<td>Somewhat agree</td>
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<tr>
<td>5</td>
<td>Strongly agree</td>
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</table>

1) _____ It upsets me to go into a situation without knowing what I can expect from it.

2) _____ I'm not bothered by things that interrupt my daily routine.

3) _____ I enjoy having a clear and structured mode of life.

4) _____ I like to have a place for everything and everything in its place.

5) _____ I enjoy being spontaneous.

6) _____ I find that a well-ordered life with regular hours makes my life tedious.

7) _____ I don't like situations that are uncertain.

8) _____ I hate to change my plans at the last minute.

9) _____ I hate to be with people who are unpredictable.

10) _____ I find that a consistent routine enables me to enjoy life more.

11) _____ I enjoy the exhilaration of being in unpredictable situations.

12) _____ I become uncomfortable when the rules in a situation are not clear.
INSTRUCTIONS: Using the 5-point scale below please read each of the following statements and rate the extent to which it describes your feelings about close relationships. Please think about all your relationships (past and present) and respond in terms of how you generally feel in these relationships. If you have never been in a romantic relationship, answer in terms of how you think you would feel. Record your answer in the space next to each item.

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<tr>
<th>Scale</th>
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<td>5</td>
<td>Extremely accurate</td>
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1) ____ I find it relatively easy to get close to others.
2) ____ I do not worry about being abandoned.
3) ____ I find it difficult to allow myself to depend on others.
4) ____ In relationships, I often worry that my partner does not really love me.
5) ____ I find that others are reluctant to get as close as I would like.
6) ____ I am comfortable depending on others.
7) ____ I do not worry about someone getting too close to me.
8) ____ I find that people are never there when you need them.
9) ____ I am somewhat uncomfortable being close to others.
10) ____ In relationships, I often worry that my partner will not want to stay with me.
11) ____ I want to merge completely with another person.
12) ____ My desire to merge sometimes scares people away.
13) ____ I am comfortable having others depend on me.
14) ____ I know that people will be there when I need them.
15) ____ I am nervous when anyone gets too close.
16) ____ I find it difficult to trust others completely.
17) ____ Often, partners want me to be closer than I feel comfortable being.
18) ____ I am not sure that I can always depend on others to be there when I need them.
Participant # XXXX

INSTRUCTIONS: In order to indicate your agreement with the statements below, please use the following scale. Record your answer in the space next to each item.

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1) ____ Many opportunities await me in the future.
2) ____ I expect that I will set many new goals in the future.
3) ____ My future is filled with possibilities.
4) ____ Most of my life lies ahead of me.
5) ____ My future seems infinite to me.
6) ____ I could do anything I want in the future.
7) ____ There is plenty of time left in my life to make new plans.
8) ____ I have the sense that time is running out.
9) ____ There are only limited possibilities in my future.
10) ____ As I get older, I begin to experience time as limited.

C. VOLUNTEERISM

Volunteering program that you are a volunteer (check all that apply):

- □ Senior Outreach Services    How many hours per month? ____
- □ Legacy Corp Respite Care    How many hours per month? ____
- □ Retired & Seniors Volunteer Program (RSVP) How many hours per month? ____
- □ RSVP Special Events Only    How many hours per month? ____

If "RSVP Special Events only", please indicate which special events:

________________________________________________________________________
INSTRUCTIONS: Answer each question according to the way you personally feel about volunteering. Use the following scale. Please place your answer in the space next to each item.

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1)____ How much does being a volunteer result in your having new experiences?
2)____ When you are volunteering, do you feel a greater awareness of things because of your volunteer work?
3)____ How much does volunteering increase your ability to accomplish new things?
4)____ How much does being a volunteer make you more competent to volunteer at other potential volunteering organizations?
5)____ How much does being a volunteer help to expand your sense of the kind of person you are?
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8)____ How much does volunteering provide a source of exciting experiences?
9)____ How much does the strength of your volunteering activities (skills, abilities, etc. learned while being a volunteer) compensate for some of your own weaknesses as a person? (For example, being a volunteer has helped you to overcome your shyness.)
10)____ How much do you feel that you have a larger perspective on things because of volunteering?
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12)____ How much has volunteering made you a better person?
13)____ How much does being a volunteer increase the respect other people have for you?
14)____ How much does being a volunteer increase your knowledge?
15)____ How much are you committed to continue volunteering?
16)____ How long have you been a volunteer? ________ years; ________ months
17)____ Being a volunteer is not very important to me.
18)____ Volunteering is something that I rarely think about.
19)____ I would feel a loss if I were forced to give up volunteering.
Participant # XXXX

20) ______ I really don’t have any clear feelings about volunteering.

21) ______ For me, being a volunteer means more than just volunteering.

22) ______ Volunteering is an important part of who I am.

23) ______ I strongly identify with my volunteer experience.

24) ______ One year from now, will you be (please check the box next to your best guess as of today):

- volunteering at this organization.
- volunteering at another organization
- not volunteering at all.

**INSTRUCTIONS:** Using the 5-point scale below, please indicate how important or accurate each of the following possible reasons for volunteering is for you in doing volunteer work at this organization. Record your answer in the space next to each item.

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1) ______ Volunteering can help me get my foot in the door at a place where I’d like to work.

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3) ______ I am concerned about those less fortunate than myself.

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16).____ I feel compassion toward people in need.
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25).____ I can learn how to deal with a variety of people.
26).____ Volunteering makes me feel needed.
27).____ Volunteering makes me feel better about myself.
28).____ Volunteering experience will look good on my resume.
29).____ Volunteering is a way to make new friends.
30).____ Through volunteering I can explore my own strengths.

D. DEMOGRAPHICS

INSTRUCTIONS: Please place a check mark in the box next to your answer.

1). Sex/Gender
   □ Male    □ Female

2). What is your racial identification (mark all that apply)?
   □ Asian/Pacific Islander □ Hispanic/Latino
   □ American Indian/Alaska □ White/Caucasian
   □ Native                  □ Other:__________________
   □ Black/African American
3). What is your religious affiliation (mark all that applies)?

☐ Agnostic  ☐ Catholic  ☐ Presbyterian
☐ Atheist   ☐ Jewish    ☐ Protestant
☐ Baptist   ☐ Methodist  ☐ Other, specify: ________
☐ Christian ☐ Muslim      

4). Year of your birth: ______________

5). What is your marital status?

☐ Married, living jointly  ☐ Divorced
☐ Married, living separately ☐ Widowed
☐ Single, never married     ☐ Other, specify: ________
☐ Separated

a) How many years married? (If more than one marriage indicate total years of combined marriages) ________

6). What is the highest level of education you completed (check one answer only)?

☐ Some High School
☐ High School Diploma or equivalent (GED)
☐ Trade School
☐ Some College
☐ Associates Degree
☐ Bachelors Degree
☐ Graduate Degree

7). How would you rate your overall health (check one answer only)?

☐ Poor
☐ Fair
☐ Good
☐ Excellent

8). Do you live with anyone (check as many answers as applicable)?

☐ No, I live alone
☐ Yes, related (Number: ____)
☐ Yes, unrelated (Number: ____)

Page 11
9). Generally speaking people are frequently thought of as "being a liberal" or "being a conservative." How would you place your views on this scale? Please circle one number.

1 2 3 4 5
Liberal Somewhat Middle of Somewhat Conservative
Liberal the Road Conservative

10). How important is religion in your life? Please circle the number that best represents the importance of religion in your life.

1 2 3 4 5
Very Somewhat Neither Somewhat Very
unimportant unimportant unimportant important important
nor important

YOU ARE FINISHED!
THANK YOU FOR YOUR HELP!!!!!!!!!

Please mail this completed survey in the self-addressed, postage paid envelope provided in your packet. If you have misplaced the envelope please contact Sue Harris at 784-7557 and a replacement envelope will be mailed to you.

REMEMBER TO MAIL IN YOUR LOTTERY POSTCARD FOR A CHANCE TO WIN ONE OF SIX $50 CASH PRIZES.

Thank-you!
Appendix E
Supplemental Survey

Greetings!

Supplemental
Volunteer Activity Satisfaction Survey (VASSY)

1. Thank you for participating in the VASSY study. As you may remember, you have already completed two questionnaires pertaining to this research. Now we would like to ask you a few questions that we did not ask in the surveys you have filled out before. Would you be so kind as to answer them now? If you agree to answer these additional questions please fill out the enclosed survey and send it back to us using the enclosed envelope.

2. Your questionnaire responses will be kept strictly confidential and will never be associated with any identifying information.

3. Please answer all the questions as accurately and honestly as possible. If you should get tired please feel free to take a break. You have up to four weeks to complete the survey and to return it to us.

4. If you have any questions or do not understand a question, feel free to call us, Susan Harris, at (775) 784-7557 or Markus Kemmelmeier, at (775) 784-1287. If you do not want to answer a question, you do not have to, and you can stop the survey at any time. The survey should take approximately 10 minutes to complete. The results of this survey will be reported on a group basis rather than on an individual basis therefore your name or identity will not be known from the results. Please do not put your name or address on any page of this survey.

5. You may ask about your rights as a research subject or you may report (anonymously if you so choose) any comments, concerns, or complaints to the University of Nevada, Reno Social Behavioral Institutional Review Board, telephone number (775) 327-2368, or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall/331, University of Nevada, Reno, Reno, Nevada, 89557. Thank you.
 QUESTIONS ABOUT VOLUNTEERING

INSTRUCTIONS: Please check the box next to the volunteer organization in which you currently volunteer. In your own words please describe what you do while volunteering for the organization, and then circle the picture that best describes how close you feel to the people in the organization that you volunteer for overall. (Y = You; P = People in Volunteer Organization). If you do not currently volunteer for any of the listed organizations, please skip this section.

☐ Senior Outreach Services

In your own words please describe what you do while volunteering for Senior Outreach Services.

Reminder: Circle the picture that best describes how close you feel to the people in the Senior Outreach Services (Y = You; P = People in Volunteer Organization).

☐ Legacy Corp Respite Care

In your own words please describe what you do while volunteering for Senior Outreach Services.

Reminder: Circle the picture that best describes how close you feel to the people in the Legacy Corp Respite Care (Y = You; P = People in Volunteer Organization).
□ Retired & Seniors Volunteer (RSVP)
In your own words please describe what you do while volunteering for RSVP.

□ RSVP Special Events Only
In your own words please describe what you do while volunteering for Special events.

Reminder: Circle the picture that best describes how close you feel to the people in the RSVP Special Events Only (Y = You; P = People in Volunteer Organization).
Remember all information provided by you in this survey is **STRICTLY CONFIDENTIAL**.

**INSTRUCTIONS:** Please place a check mark in the box next to your answer.

1) Are you currently retired?
   - [ ] Yes  How long? __________
   - [ ] No

2) If you answered question 1) with YES, why did you retire (check all that apply)?
   - [ ] Health reasons
   - [ ] Could financially afford to retire
   - [ ] Job was eliminated
   - [ ] To provide care for a relative
   - [ ] To provide for a non-relative
   - [ ] Forced retirement
   - [ ] Tired of working
   - [ ] Other reasons: __________

3) Why do you volunteer (check all that apply)?
   - [ ] Because my friends volunteer
   - [ ] To learn new skills
   - [ ] To get out of the house
   - [ ] To give back to the community
   - [ ] Because it is the right thing to do
   - [ ] To keep myself busy
   - [ ] Other reasons: __________

4) Are you currently volunteering for organization(s) other than Retired and Senior Volunteer Program, Senior Outreach Services, or Legacy Corp?
   - [ ] YES  [ ] NO

5) If you answered question 4) with YES, please provide information on your other current volunteering activities:

   a) Name of Other Organization: _______________________________
      My tasks as a volunteer for this organization: ____________________________
      Length of time volunteering for this organization: ______ years; ______ months

   b) Name of Other Organization: _______________________________
      My tasks as a volunteer for this organization: ____________________________
      Length of time volunteering for this organization: ______ years; ______ months
6) Now we are interested in your past volunteering activities. Are there any organizations that you volunteered for in the past, but that you no longer volunteer for now?

   ____ YES   ____ NO

7) **IF YOU** answered question 6) with **YES**, what other organizations did you volunteer for in the past but **do not** volunteer for any more?

   a) Name of Other Organization:
      My tasks as a volunteer for this organization: __________________________
      Length of time volunteering for this organization: ______ years; ______ months
      When did you stop volunteering for this organization? ______ (month/year)

   b) Name of Other Organization:
      My tasks as a volunteer for this organization: __________________________
      Length of time volunteering for this organization: ______ years; ______ months
      When did you stop volunteering for this organization? ______ (month/year)

   c) Name of Other Organization:
      My tasks as a volunteer for this organization: __________________________
      Length of time volunteering for this organization: ______ years; ______ months
      When did you stop volunteering for this organization? ______ (month/year)

   d) Name of Other Organization:
      My tasks as a volunteer for this organization: __________________________
      Length of time volunteering for this organization: ______ years; ______ months
      When did you stop volunteering for this organization? ______ (month/year)
8) When completing the Volunteer Activity Satisfaction Surveys (VASSY) before, you were asked to answer questions regarding your experiences as a volunteer. For instance, you were asked to answer the questions “How much does being a volunteer result in your having new experiences?”, “How much has volunteering made you a better person?” with a scale of 1 to 5 with “1” being “not at all” and “5” being “very much”. When you answered questions regarding how you personally feel about volunteering where you thinking of:

- Your current volunteering experiences
- Your volunteering experiences across your life time
- Other: ______________________

9) Which of the following terms best describes your current social class (socio-economic status)? (Check only one answer).

- Upper class
- Lower Upper class
- Middle class
- Lower-Middle class
- Lower class

Please mail this completed survey in the self-addressed, postage paid envelope provided in your packet. If you have misplaced the envelope please contact Sue Harris at 784-7557 (email: sharris@unr.edu) and a replacement envelope will be mailed to you.

Thank-you!

ATTENTION

The Retired and Seniors Volunteer Program (RSVP) is willing to provide us with the following information about your service with RSVP:
- Date you started volunteering
- Type of services you have provided and hours spent providing these services
- Tasks involved in providing these services

Once we have obtained this information, by law we are required to never associate your name with this information. (This is the same for all other survey responses you have already provided to us.) However, if for any reason you DO NOT want RSVP to share this information with us, please send the enclosed OPT OUT FORM back to us. If we receive the OPT OUT FORM from you, RSVP will NOT share any of the above information this.
Table 1

Pilot Study: Correlation between domains of SEQ (n = 129)

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**p < .01.
Table 2

Pilot Study: Correlation between SEQ and independent variables (n = 129)

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*p < .10; *p < .05; **p < .01.
**Table 3**

*Pilot Study: Correlation between SEQ and VFI variables (n = 129)*

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* **p < .01.
Table 4

Main Study: Demographics of sample

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<td>Number of participants</td>
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<td>66*</td>
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<td>Mean Age (range in years)</td>
<td>70 (53-89)</td>
<td>71 (55–87)</td>
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<td>Bachelor’s Degree or higher</td>
<td>30 (27%)</td>
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<td>Female</td>
<td>79 (71%)</td>
<td>46 (70%)</td>
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<tr>
<td>White</td>
<td>102 (92%)</td>
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<tr>
<td>Not Currently Married</td>
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<td>Living Alone</td>
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<td>Retired 96-192 months</td>
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<td>Retired 204-432 months</td>
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<td>6 (9%)</td>
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*This number represents only those participants who had completed at least the measure of role identity and of commitment at Time 1 and at Time 2.*
### Hypotheses 1-4

#### Hypothesis: Correlations (cross-sectional).

1. SEQ-Volunteering correlates with
   - PGCMS attitudes toward one’s own aging: Not Supported
   - mastery: Not Supported
   - commitment: Supported
   - role identity: Supported
   - volunteer functions: Supported
   - future time perspective: Supported
   - C & E absorption: Supported
   - C & E exploration: Supported
   - attachment style: Partial Support
   - personal need for structure: Not Supported
   - subjective health: Not Supported
   - VFI career: Supported
   - VFI social: Supported
   - VFI values: Supported
   - VFI understand: Supported
   - VFI enhance: Supported
   - VFI protect: Supported

#### Hypotheses: Longitudinal.

2. Increase over time:
   - levels of mastery: Not Supported
   - attitudes towards one’s own aging: Not Supported
   - role identity: Supported
   - commitment: Not Supported
   - PGCMS agitation: Not Supported
   - PGCMS lonely dissatisfaction will decrease: Not Supported

3. No change over time:
   - Big 5 personality traits: Supported
   - personal need for structure: Supported
   - attachment styles: Supported
   - curiosity (C & E: absorption, exploration): Supported
   - future time perspective: Supported
   - VFI-Career: Supported
   - VFI-Social: Supported
   - VFI-Values: Supported
   - VFI-Understand: Supported
   - VFI-Enhance: Supported
   - VFI-Protection: Supported

4. SEQ-V Time 1 predicts
   - role identity: Supported
   - commitment: Not Supported
   - mastery: Not Supported
   - PGCMS attitudes toward own aging: Not Supported
   - PGCMS morale: Not Supported
   - VFI-Career: Supported
   - VFI-Social: Supported
   - VFI-Values: Supported
   - VFI-Understand: Supported
   - VFI-Enhance: Supported
   - VFI-Protection: Supported
### Hypotheses 5-13

**Table 6**

<table>
<thead>
<tr>
<th>Hypotheses: Longitudinal moderators of changes in SEQ-Volunteering (SEQ-V).</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. SEQ-V impact greater in the early stages of engagement</td>
</tr>
<tr>
<td>6. SEQ-Volunteering increases more positive attitudes toward own aging</td>
</tr>
<tr>
<td>7. SEQ-Volunteering increases lower PNS individuals: less so for higher PNS</td>
</tr>
<tr>
<td>8. SEQ-Volunteering increases higher with regard to a secure attachment higher with regard to an avoidant attachment</td>
</tr>
<tr>
<td>9. SEQ-Volunteering not increase higher with regard to anxious attachment</td>
</tr>
<tr>
<td>10. SEQ-Volunteering increases over future time perspective that is open-ended</td>
</tr>
<tr>
<td>11. Personality not influence self-expansion</td>
</tr>
<tr>
<td>12. Any longitudinal changes more pronounced for novice volunteers less pronounced for long-time volunteers</td>
</tr>
<tr>
<td>13. SEQ-V predicts volunteer functions at Time 2</td>
</tr>
</tbody>
</table>

**Research Questions**

| A. Extent cross-sectional corr. moderated by gender | Not Significant |
| B. Extent longitudinal correlations moderated by gender | Not Significant |
| C. Does age moderate findings of A findings of B | Not Significant |
| D. Does health follow same pattern as role identity same pattern as commitment same pattern as mastery same pattern as attitudes same pattern as morale | No |

**Supplemental Survey**

| SEQ-V Time 1 predicts Inclusion-of-community-in-the-self | Supported |
Table 7

Main Study: Correlation between SEQ-V at Time 1 and Variables at Time 1 and SEQ-V at Time 2 and Variables at Time 2 (Time 1 and Time 2, n = 111)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>All</td>
<td>Women</td>
</tr>
<tr>
<td>PGCMS Attitudes - one’s aging</td>
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<td>.05</td>
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<tr>
<td>Mastery</td>
<td>.09</td>
<td>-.01</td>
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<td>Commitment</td>
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<td>.47 **</td>
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<tr>
<td>Role Identity</td>
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<td>.61 **</td>
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<tr>
<td>VFI - Career</td>
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<td>.36 **</td>
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<tr>
<td>VFI - Social</td>
<td>.41 **</td>
<td>.42 **</td>
</tr>
<tr>
<td>VFI - Values</td>
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<td>.34 **</td>
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<td>VFI - Understand</td>
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<td>.64 **</td>
</tr>
<tr>
<td>VFI - Enhance</td>
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<td>.50 **</td>
</tr>
<tr>
<td>VFI - Protect</td>
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<td>.49 **</td>
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<td>C &amp; E Exploration</td>
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<td>-.04</td>
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<tr>
<td>Big 5 Agreeableness</td>
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<td>.04</td>
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<td>Big 5 Emotional stability</td>
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<td>Big 5 Extraversion</td>
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<td>-.04</td>
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<td>.23 **</td>
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<td>.23 **</td>
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<td>.02</td>
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<td>-.03</td>
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<tr>
<td>Hours month volunteer</td>
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<td>.09</td>
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<tr>
<td>Future Time Perspective</td>
<td>.29 **</td>
<td>.29 **</td>
</tr>
<tr>
<td>Morale</td>
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<td>.01</td>
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<tr>
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<td>-.04</td>
<td>-.07</td>
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<td>PGCMS Lonely/Dissatisfaction</td>
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<td>-.07</td>
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<tr>
<td>Importance of Religion</td>
<td>.14</td>
<td>.12</td>
</tr>
</tbody>
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*p < .10; **p < .05; ***p < .01.

a,n = 109; b,n = 110; c,n = 107; d,n = 105; e,n = 103; f,n = 108; g,n = 106; h,n = 99

Note: Females n = 76-79; Males, n = 29-32.
Table 8
Main Study: Correlation between VFI and Dependent and Moderating Variables at Time 1 (above diagonal) and Time 2 (below diagonal) 
(n = 111)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
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<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
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<tr>
<td>(1) Role Identity</td>
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<td>.51***</td>
<td>.19*</td>
<td>.10</td>
<td>.05</td>
<td>.23*</td>
<td>.38***</td>
<td>.48***</td>
<td>.52***</td>
<td>.50***</td>
<td>.37***</td>
<td>-.12</td>
<td>.24*</td>
<td></td>
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<tr>
<td>(2) Commitment</td>
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<td>-.03</td>
<td>.004</td>
<td>.06</td>
<td>.11</td>
<td>.25**</td>
<td>.27**</td>
<td>.25**</td>
<td>.15</td>
<td>-.08</td>
<td>.24*</td>
<td></td>
</tr>
<tr>
<td>(3) Masterya</td>
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<td>.11</td>
<td>.16</td>
<td>.35***</td>
<td>.44***</td>
<td>-.05</td>
<td>-.05</td>
<td>.05</td>
<td>-.09</td>
<td>-.16+</td>
<td>-.30**</td>
<td>.12</td>
<td>.24*</td>
<td></td>
</tr>
<tr>
<td>(4) Attitudes toward own aginga</td>
<td></td>
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<td>.01</td>
<td>.39***</td>
<td>.84***</td>
<td>.09</td>
<td>.05</td>
<td>.13</td>
<td>.05</td>
<td>.002</td>
<td>-.24*</td>
<td>.08</td>
<td>-.05</td>
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<tr>
<td>(5) Moraleb</td>
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<td>.11</td>
<td>.04</td>
<td>.38***</td>
<td>.85***</td>
<td>.02</td>
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<td>-.04</td>
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<td>.06</td>
<td>.02</td>
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<tr>
<td>(6) VFI-Career</td>
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<td>.21*</td>
<td>.01</td>
<td>-.07</td>
<td>.05</td>
<td>-.04</td>
<td>.37***</td>
<td>.30**</td>
<td>.48***</td>
<td>.47***</td>
<td>.49***</td>
<td>.03</td>
<td>.02</td>
<td></td>
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<tr>
<td>(7) VFI-Social</td>
<td></td>
<td>.27**</td>
<td>.03</td>
<td>.02</td>
<td>.05</td>
<td>-.002</td>
<td>.40***</td>
<td>.32**</td>
<td>.57***</td>
<td>.54***</td>
<td>.37***</td>
<td>.14</td>
<td>-.11</td>
<td></td>
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<tr>
<td>(8) VFI-Values</td>
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<td>.42***</td>
<td>.18*</td>
<td>.07</td>
<td>.18+</td>
<td>.08</td>
<td>.27**</td>
<td>.38***</td>
<td>.55***</td>
<td>.35**</td>
<td>.36**</td>
<td>.14</td>
<td>-.11</td>
<td></td>
</tr>
<tr>
<td>(9) VFI-Understand</td>
<td></td>
<td>.53***</td>
<td>.28**</td>
<td>.05</td>
<td>.10</td>
<td>.03</td>
<td>.53***</td>
<td>.52***</td>
<td>.62***</td>
<td>.64***</td>
<td>.53***</td>
<td>.02</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>(10) VFI-Enhance</td>
<td></td>
<td>.54***</td>
<td>.20+</td>
<td>-.01</td>
<td>-.05</td>
<td>-.10</td>
<td>.48***</td>
<td>.56***</td>
<td>.47***</td>
<td>.71***</td>
<td>.62**</td>
<td>.02</td>
<td>.08</td>
<td></td>
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<tr>
<td>(11) VFI-Protect</td>
<td></td>
<td>.34***</td>
<td>.14</td>
<td>-.26**</td>
<td>-.31**</td>
<td>-.34***</td>
<td>.42***</td>
<td>.43***</td>
<td>.32**</td>
<td>.51***</td>
<td>.56***</td>
<td>-.08</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>(12) History as a volunteerb</td>
<td></td>
<td>.08</td>
<td>-.08</td>
<td>.12</td>
<td>.11</td>
<td>.13</td>
<td>.10</td>
<td>.07</td>
<td>.01</td>
<td>-.01</td>
<td>.01</td>
<td>-.07</td>
<td>-.12</td>
<td></td>
</tr>
<tr>
<td>(13) Hours per month volunteeringc</td>
<td></td>
<td>.32**</td>
<td>.22*</td>
<td>.08</td>
<td>.21*</td>
<td>.16</td>
<td>.06</td>
<td>-.11</td>
<td>.23*</td>
<td>.20*</td>
<td>.08</td>
<td>.01</td>
<td>.02</td>
<td></td>
</tr>
</tbody>
</table>

+p < .10; *p < .05; **p < .01; ***p < .001

a n = 109; b n = 108; c n = 103
Table 9
Main Study: Paired T-Tests, Significance, and Correlation between Time 1 and Time 2 Dependent Variables, All Participants (n = 111)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time 1</th>
<th>Time 2</th>
<th>t</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expansion (SEQ-V)</td>
<td>3.67 (0.82)</td>
<td>3.68 (0.83)</td>
<td>-0.31</td>
<td>.82**</td>
</tr>
<tr>
<td>Role Identity</td>
<td>3.97 (0.85)</td>
<td>4.10 (0.76)</td>
<td>-2.17*</td>
<td>.70**</td>
</tr>
<tr>
<td>Commitment</td>
<td>4.40 (0.75)</td>
<td>4.20 (0.90)</td>
<td>2.62**</td>
<td>.55**</td>
</tr>
<tr>
<td>Masterya</td>
<td>4.28 (0.54)</td>
<td>4.18 (0.61)</td>
<td>1.82*</td>
<td>.48**</td>
</tr>
<tr>
<td>PGCMS Attitude Own Agingb</td>
<td>0.78 (0.26)</td>
<td>0.75 (0.29)</td>
<td>2.13*</td>
<td>.81**</td>
</tr>
<tr>
<td>PGCMS Overall Moralec</td>
<td>0.84 (0.17)</td>
<td>0.85 (0.19)</td>
<td>-1.28*</td>
<td>.83**</td>
</tr>
<tr>
<td>VFI-Career</td>
<td>1.85 (1.09)</td>
<td>1.84 (1.02)</td>
<td>0.18</td>
<td>.79***</td>
</tr>
<tr>
<td>VFI-Social</td>
<td>3.07 (1.08)</td>
<td>3.07 (1.06)</td>
<td>0.08</td>
<td>.70***</td>
</tr>
<tr>
<td>VFI-Values</td>
<td>4.25 (0.65)</td>
<td>4.19 (0.64)</td>
<td>1.09</td>
<td>.60***</td>
</tr>
<tr>
<td>VFI-Understand</td>
<td>3.72 (0.87)</td>
<td>3.70 (0.86)</td>
<td>0.42</td>
<td>.72***</td>
</tr>
<tr>
<td>VFI-Enhance</td>
<td>3.58 (0.91)</td>
<td>3.54 (0.93)</td>
<td>0.71</td>
<td>.76***</td>
</tr>
<tr>
<td>VFI-Protect</td>
<td>2.74 (0.99)</td>
<td>2.63 (0.95)</td>
<td>1.91*</td>
<td>.80***</td>
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</tbody>
</table>

*p < .10; *p < .05; **p < .01, ***p < .001.
a*n = 109; b*n = 108; c*n = 107.

Note: SEQ-V, role-identity, commitment and mastery were assessed on a 5-point scale (1 through 5), PGM was recorded using Yes/No (1/0) responses.
Table 10

Main Study: Paired T-Tests, Significance, and Correlation between Time 1 and Time 2 Independent Variables, All Participants (n = 111)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 1 &amp; Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>t</td>
</tr>
<tr>
<td>PGCMS Agitation(^a)</td>
<td>0.87 (0.20)</td>
<td>0.88 (0.21)</td>
<td>-1.01</td>
</tr>
<tr>
<td>PGCMS Lonely/Dissatis.(^b)</td>
<td>0.91 (0.18)</td>
<td>0.91 (0.20)</td>
<td>0.04</td>
</tr>
<tr>
<td>Importance of Religion</td>
<td>3.68 (1.31)</td>
<td>3.49 (1.17)</td>
<td>1.57</td>
</tr>
<tr>
<td>Close(^d)</td>
<td>3.72 (0.64)</td>
<td>3.75 (0.70)</td>
<td>-0.39</td>
</tr>
<tr>
<td>Depend(^a)</td>
<td>3.37 (0.72)</td>
<td>3.28 (0.80)</td>
<td>1.39</td>
</tr>
<tr>
<td>Anxiety(^c)</td>
<td>2.16 (0.68)</td>
<td>2.07 (0.62)</td>
<td>1.33</td>
</tr>
<tr>
<td>Big 5 Agreeableness(^c)</td>
<td>4.35 (0.63)</td>
<td>4.36 (0.67)</td>
<td>-0.18</td>
</tr>
<tr>
<td>Big 5 Conscientiousness(^e)</td>
<td>4.57 (0.64)</td>
<td>4.61 (0.61)</td>
<td>-0.64</td>
</tr>
<tr>
<td>Big 5 Emotional Stability(^e)</td>
<td>4.22 (0.72)</td>
<td>4.15 (0.71)</td>
<td>1.12</td>
</tr>
<tr>
<td>Big 5 Extraversion(^d)</td>
<td>3.46 (0.96)</td>
<td>3.41 (1.01)</td>
<td>0.60</td>
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<tr>
<td>Big 5 Openness(^f)</td>
<td>3.98 (0.72)</td>
<td>3.98 (0.80)</td>
<td>0.08</td>
</tr>
<tr>
<td>C &amp; E Absorption(^g)</td>
<td>3.40 (0.84)</td>
<td>3.36 (0.84)</td>
<td>0.49</td>
</tr>
<tr>
<td>C &amp; E Exploration(^g)</td>
<td>3.97 (0.74)</td>
<td>4.02 (0.73)</td>
<td>-0.79</td>
</tr>
<tr>
<td>Future Time Perspective</td>
<td>3.41 (0.84)</td>
<td>3.31 (0.81)</td>
<td>1.62</td>
</tr>
<tr>
<td>Health(^f)</td>
<td>3.12 (0.72)</td>
<td>3.09 (0.70)</td>
<td>0.73</td>
</tr>
<tr>
<td>Personal Need Structure(^h)</td>
<td>3.17 (0.57)</td>
<td>3.16 (0.55)</td>
<td>0.30</td>
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</table>

\(^{**p} < .01.\)

\(^{a}n = 107;\) \(^{b}n = 108;\) \(^{c}n = 102;\) \(^{d}n = 101;\) \(^{e}n = 104;\) \(^{f}n = 103;\) \(^{g}n = 109;\) \(^{h}n = 110\)
Table 11
Main Study: Sequential (hierarchical) regression model with SEQ-V and subsequent interaction terms

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Volunteering-specific Outcomes</th>
<th>General Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Role ID</td>
<td>Commit</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV Time 1</td>
<td>.50***</td>
<td>.32***</td>
</tr>
<tr>
<td>Step 2</td>
<td>.04*</td>
<td>.03</td>
</tr>
<tr>
<td>Gender (0=male: 1=female)</td>
<td>.20+</td>
<td>.01</td>
</tr>
<tr>
<td>Race (0=white; 1=nonwhite)</td>
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<td>.40+</td>
</tr>
<tr>
<td>Importance Religion</td>
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<td>-.06</td>
</tr>
<tr>
<td>Step 3</td>
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<td>.02</td>
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<td>History as volunteer</td>
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<tr>
<td>Hours month volunteer</td>
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<td>.12</td>
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<td>Step 4</td>
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<td>.01</td>
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<td>SEQV</td>
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<td>Step 5</td>
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<td>SEQV* History as volunteer</td>
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<td>.08</td>
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<td>SEQV* Hours month volunteer</td>
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<tr>
<td>Total $R^2$</td>
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*+p < .10; *p < .05; **p < .01; ***p < .001.

Note. Varying n per analysis was due to missing data and removal of outliers (standardized residuals of greater than 3).
### Table 12

**Main Study: Sequential (hierarchical) regression model with FTPS and subsequent interaction terms**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Volunteering-specific Outcomes</th>
<th>General Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.32***</td>
</tr>
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<td>.61*** (.09)</td>
</tr>
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<td>.03</td>
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<tr>
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<td>.01</td>
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<td>.40+</td>
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<tr>
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<td>.06</td>
</tr>
<tr>
<td>Step 3</td>
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<td>.02</td>
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<td>.20</td>
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<td>.12*</td>
<td>.17</td>
</tr>
<tr>
<td>Step 4</td>
<td>.02*</td>
<td>.01</td>
</tr>
<tr>
<td>FTPS</td>
<td>.13*</td>
<td>.11</td>
</tr>
<tr>
<td>Step 5</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>FTPS * History as volunteer</td>
<td>-.23</td>
<td>-.24</td>
</tr>
<tr>
<td>FTPS * Hours month volunteer</td>
<td>.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.62***</td>
<td>.39***</td>
</tr>
<tr>
<td>N</td>
<td>111</td>
<td>110</td>
</tr>
</tbody>
</table>

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Note. Varying n per analysis was due to missing data and removal of outliers (standardized residuals of greater than 3).
Table 13

Main Study: Sequential (hierarchical) regression model with SEQ-V and FTPS and subsequent interaction terms

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Volunteering-specific Outcomes</th>
<th>General Outcomes</th>
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<td></td>
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<td>.32***</td>
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<td>.64*** (.09)</td>
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<td>Step 2</td>
<td>.04*</td>
<td>.03</td>
</tr>
<tr>
<td>Gender (0=male; 1=female)</td>
<td>.20+ (.11)</td>
<td>.01 (.15)</td>
</tr>
<tr>
<td>Race (0=white; 1=nonwhite)</td>
<td>-.25 (.18)</td>
<td>.40 (.25)+</td>
</tr>
<tr>
<td>Importance Religion</td>
<td>-.10** (.04)</td>
<td>-.01 (.05)</td>
</tr>
<tr>
<td>Step 3</td>
<td>.05***</td>
<td>.02</td>
</tr>
<tr>
<td>History as volunteer</td>
<td>.37*** (.12)</td>
<td>.21 (.17)</td>
</tr>
<tr>
<td>Hours month volunteer</td>
<td>.12* (.06)</td>
<td>.12 (.08)</td>
</tr>
<tr>
<td>Step 4</td>
<td>.03*</td>
<td>.02</td>
</tr>
<tr>
<td>SEQ-V</td>
<td>.14+ (.08)</td>
<td>.08 (.10)</td>
</tr>
<tr>
<td>FTPS</td>
<td>.11+ (.06)</td>
<td>.10 (.09)</td>
</tr>
<tr>
<td>Step 5</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>SEQ-V * History as volunteer</td>
<td>-.25 (.16)</td>
<td>.14 (.24)</td>
</tr>
<tr>
<td>SEQ-V * Hours month volunteer</td>
<td>-.04 (.06)</td>
<td>.04 (.10)</td>
</tr>
<tr>
<td>FTPS * History as volunteer</td>
<td>-.21 (.16)</td>
<td>-.29 (.23)</td>
</tr>
<tr>
<td>FTPS *Hours month volunteer</td>
<td>.002 (.08)</td>
<td>-.05 (.11)</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.64***</td>
<td>.40***</td>
</tr>
<tr>
<td>$N$</td>
<td>111</td>
<td>110</td>
</tr>
</tbody>
</table>

$^p < .10; ^*p < .05; ^**p < .01; ^***p < .001.$

Note. Varying n per analysis was due to missing data and removal of outliers (standardized residuals of greater than 3).
Table 14

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting Attitudes toward own aging (n = 111).

<table>
<thead>
<tr>
<th>Step</th>
<th>ΔR²</th>
<th>b</th>
<th>(se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.66***</td>
<td>.81***</td>
<td>(.06)</td>
</tr>
<tr>
<td>SEQ-V Time 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.01</td>
<td>.06</td>
<td>(.10)</td>
</tr>
<tr>
<td>Gender (0 = male; 1 = female)</td>
<td></td>
<td>.07</td>
<td>(.17)</td>
</tr>
<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
<td></td>
<td>-.04</td>
<td>(.04)</td>
</tr>
<tr>
<td>Step 3</td>
<td>.01</td>
<td>.12</td>
<td>(.11)</td>
</tr>
<tr>
<td>History as volunteer</td>
<td></td>
<td>.07</td>
<td>(.06)</td>
</tr>
<tr>
<td>Step 4</td>
<td>.01</td>
<td>.28</td>
<td>(.17)</td>
</tr>
<tr>
<td>PGCMS Attitudes toward own aging</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Step 5</td>
<td>.02*</td>
<td>.95*</td>
<td>(.38)</td>
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<tr>
<td>PGCMS Attitudes * History as volunteer</td>
<td></td>
<td>-.08</td>
<td>(.22)</td>
</tr>
<tr>
<td>Total R²</td>
<td>.71***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; ***p < .001.
Table 15

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting PNS (n = 111)

<table>
<thead>
<tr>
<th>Step</th>
<th>( \Delta R^2 )</th>
<th>( b )</th>
<th>(se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.67***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEQ-V Time 1</td>
<td>.83***</td>
<td>(.06)</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (0 = male; 1 = female)</td>
<td>.05</td>
<td>(.10)</td>
<td></td>
</tr>
<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
<td>.07</td>
<td>(.17)</td>
<td></td>
</tr>
<tr>
<td>Importance of Religion</td>
<td>-.05</td>
<td>(.04)</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History as volunteer</td>
<td>.03</td>
<td>(.05)</td>
<td></td>
</tr>
<tr>
<td>Hours month volunteer</td>
<td>.17</td>
<td>(.11)</td>
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<tr>
<td>Step 4</td>
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<tr>
<td>Personal need for structure</td>
<td>.02</td>
<td>(.09)</td>
<td></td>
</tr>
<tr>
<td>Step 5</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal need for structure * History as volunteer</td>
<td>-.02</td>
<td>(.23)</td>
<td></td>
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<tr>
<td>Personal need for structure * Hours month volunteer</td>
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<td>(.11)</td>
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<tr>
<td>Total ( R^2 )</td>
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</table>

***p < .001.
Table 16

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting Attachment (n = 109)

<table>
<thead>
<tr>
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<th>( b )</th>
<th>( (se) )</th>
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</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td></td>
</tr>
<tr>
<td>SEQ-V Time 1</td>
<td></td>
<td><strong>.83</strong>*</td>
<td>(.06)</td>
</tr>
<tr>
<td>Step 2</td>
<td><strong>.01</strong></td>
<td></td>
<td></td>
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<tr>
<td>Gender (0 = male; 1 = female)</td>
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<td>.06</td>
<td>(.10)</td>
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<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
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<td>.08</td>
<td>(.17)</td>
</tr>
<tr>
<td>Importance of Religion</td>
<td></td>
<td>-.05</td>
<td>(.04)</td>
</tr>
<tr>
<td>Step 3</td>
<td><strong>.01</strong></td>
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</tr>
<tr>
<td>History as volunteer</td>
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<td>.04</td>
<td>(.05)</td>
</tr>
<tr>
<td>Hours month volunteer</td>
<td></td>
<td>.22</td>
<td>(.12)</td>
</tr>
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<td>Close</td>
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<td>(.10)</td>
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<tr>
<td>Depend</td>
<td></td>
<td>-.06</td>
<td>(.09)</td>
</tr>
<tr>
<td>Anxiety</td>
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<td>-.07</td>
<td>(.10)</td>
</tr>
<tr>
<td>Step 5</td>
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<td>(.14)</td>
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<td>(.25)</td>
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<td>.09</td>
<td>(.11)</td>
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<td>-.17</td>
<td>(.22)</td>
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<td>(.11)</td>
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<td>Total ( R^2 )</td>
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***p < .001.
Table 17

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting Future Time Perspective (FTPS) (n = 111)

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<th>(se)</th>
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</thead>
<tbody>
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<td>.83***</td>
<td>(.06)</td>
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<td>SEQ-V Time 1</td>
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<tr>
<td>Step 2</td>
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<td>Gender (0 = male; 1 = female)</td>
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<td>(.10)</td>
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<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
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<td>(.17)</td>
<td></td>
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<tr>
<td>Importance of Religion</td>
<td>-.05</td>
<td>(.04)</td>
<td></td>
</tr>
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<td>Step 3</td>
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<tr>
<td>History as volunteer</td>
<td>.03</td>
<td>(.05)</td>
<td></td>
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<tr>
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<td>.17</td>
<td>(.11)</td>
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<td>Step 5</td>
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<td></td>
</tr>
<tr>
<td>FTPS * History as volunteer</td>
<td>-.12</td>
<td>(.15)</td>
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</tr>
<tr>
<td>FTPS * Hours month volunteer</td>
<td>.09</td>
<td>(.07)</td>
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<td>Total $R^2$</td>
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</tbody>
</table>

***$p < .001$. 
Table 18

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting Absorption and Exploration (n = 111)

<table>
<thead>
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<th>(se)</th>
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</thead>
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<td>Step 1</td>
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<td></td>
</tr>
<tr>
<td>SEQ-V Time 1</td>
<td></td>
<td>.83***</td>
<td>(.06)</td>
</tr>
<tr>
<td>Step 2</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (0 = male; 1 = female)</td>
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<td>.05</td>
<td>(.10)</td>
</tr>
<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
<td></td>
<td>.07</td>
<td>(.17)</td>
</tr>
<tr>
<td>Importance of Religion</td>
<td></td>
<td>-.05</td>
<td>(.04)</td>
</tr>
<tr>
<td>Step 3</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History as volunteer</td>
<td></td>
<td>.03</td>
<td>(.05)</td>
</tr>
<tr>
<td>Hours month volunteer</td>
<td></td>
<td>.17</td>
<td>(.11)</td>
</tr>
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<td>Step 4</td>
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<td>(.08)</td>
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<td>C &amp; E Absorption</td>
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<td>-.01</td>
<td>(.07)</td>
</tr>
<tr>
<td>Step 5</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C &amp; E Exploration * History as volunteer</td>
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<td>-.05</td>
<td>(.19)</td>
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<td>C &amp; E Exploration * Hours month volunteer</td>
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<td>(.09)</td>
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<td>C &amp; E Absorption * History as volunteer</td>
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<td>.01</td>
<td>(.16)</td>
</tr>
<tr>
<td>C &amp; E Absorption * Hours month volunteer</td>
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<td>-.06</td>
<td>(.07)</td>
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<tr>
<td>Total R²</td>
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</table>

***p < .001.
**Table 19**

*Main Study: Sequential (hierarchical) regression model with SEQ-V predicting Big 5 Personality Traits (N = 109).*

<table>
<thead>
<tr>
<th>Step</th>
<th>$\Delta R^2$</th>
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<th>$(se)$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<tr>
<td><strong>Step 2</strong></td>
<td>.001</td>
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<tr>
<td>Gender (0 = male; 1 = female)</td>
<td>.01 (.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race (0 = white; 1 = nonwhite)</td>
<td>.08 (.16)</td>
<td></td>
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<tr>
<td>Importance of Religion</td>
<td>-.03 (.03)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History as volunteer</td>
<td>.02 (.05)</td>
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<td>Hours month volunteer</td>
<td>.15 (.11)</td>
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<tr>
<td><strong>Step 4</strong></td>
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<td>Big 5 Agreeableness</td>
<td>.11 (.09)</td>
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<tr>
<td>Big 5 Conscientiousness</td>
<td>-.13 (.09)</td>
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<td></td>
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<tr>
<td>Big 5 Emotional Stability</td>
<td>.06 (.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Extraversion</td>
<td>-.12* (.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Openness</td>
<td>.07 (.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 5</strong></td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Agreeableness * History as volunteer</td>
<td>-.46* (.28)</td>
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<td></td>
</tr>
<tr>
<td>Big 5 Agreeableness * Hours month volunteer</td>
<td>.06 (.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Conscientiousness * History as volunteer</td>
<td>.17 (.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Conscientiousness * Hours month volunteer</td>
<td>.09 (.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Emotional Stability * History as volunteer</td>
<td>.21 (.23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Emotional Stability * Hours month volunteer</td>
<td>-.14 (.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big 5 Extraversion * History as volunteer</td>
<td>-.23 (.14)</td>
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<tr>
<td>Big 5 Extraversion * Hours month volunteer</td>
<td>.01 (.07)</td>
<td></td>
<td></td>
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<tr>
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<td>.07 (.10)</td>
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</tbody>
</table>

Total $R^2$ .77***

$+p < .10; *p < .05; ***p < .001$. 

Table 20

Main Study: Sequential (hierarchical) regression model with SEQ-V predicting VFI Understanding
(N = 111)

<table>
<thead>
<tr>
<th>Step</th>
<th>ΔR²</th>
<th>b (se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.52***</td>
<td>VFI Understanding Time 1</td>
</tr>
<tr>
<td>Gender (0 = male; 1 = female)</td>
<td>.03+</td>
<td>-.20 (.13)</td>
</tr>
<tr>
<td>Race (0 = white; 1= nonwhite)</td>
<td></td>
<td>.38+ (.21)</td>
</tr>
<tr>
<td>Importance of Religion</td>
<td></td>
<td>-.03 (.04)</td>
</tr>
<tr>
<td>Step 3</td>
<td>.002</td>
<td>History as volunteer</td>
</tr>
<tr>
<td>Hours month volunteer</td>
<td></td>
<td>.01 (.14)</td>
</tr>
<tr>
<td>Step 4</td>
<td>.04**</td>
<td>SEQ-V Time 1</td>
</tr>
<tr>
<td>Step 5</td>
<td>.01</td>
<td>SEQ-V * History as volunteer</td>
</tr>
<tr>
<td>SEQ-V * Hours month volunteer</td>
<td></td>
<td>-.001 (.07)</td>
</tr>
</tbody>
</table>

Total $R^2$  .60***

+p < .10, **p < .01, ***p < .001.
Table 21

Main Study: Sequential (hierarchical) regression model with SEQ-V Time 1 and SEQ-V Time 2 predicting Inclusion of Community in Self (n = 66)

<table>
<thead>
<tr>
<th>Step</th>
<th>(\Delta R^2)</th>
<th>(b)</th>
<th>(se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.05</td>
<td>.33</td>
<td>(.34)</td>
</tr>
<tr>
<td></td>
<td>Gender (0 = male; 1 = female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Race (0 = white; 1 = nonwhite)</td>
<td>-.47</td>
<td>(.66)</td>
</tr>
<tr>
<td></td>
<td>Importance of Religion</td>
<td>.11</td>
<td>(.12)</td>
</tr>
<tr>
<td>Step 2</td>
<td>.01</td>
<td>.11</td>
<td>(.18)</td>
</tr>
<tr>
<td></td>
<td>History as volunteer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours month volunteer</td>
<td>-.08</td>
<td>(.36)</td>
</tr>
<tr>
<td>Step 3</td>
<td>.10*</td>
<td>.58*</td>
<td>(.22)</td>
</tr>
<tr>
<td></td>
<td>SEQ-V Time 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>.01</td>
<td>.78*</td>
<td>(.38)</td>
</tr>
<tr>
<td></td>
<td>SEQ-V Time 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEQ-V Time 2</td>
<td>-.23</td>
<td>(.34)</td>
</tr>
<tr>
<td></td>
<td><strong>Total (R^2)</strong></td>
<td>.16</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.
The Inclusion of Other in the Self scale (IOS)