



Minnesota State University, Mankato

Cornerstone: A Collection of Scholarly
and Creative Works for Minnesota
State University, Mankato

All Graduate Theses, Dissertations, and Other
Capstone Projects

Graduate Theses, Dissertations, and Other
Capstone Projects

2014

The Difference in Perception of Gerotranscendence between College Students and Healthy, Community-Dwelling Older Adults

Duc Viet Lai

Minnesota State University - Mankato

Follow this and additional works at: <https://cornerstone.lib.mnsu.edu/etds>



Part of the [Clinical Psychology Commons](#), and the [Gerontology Commons](#)

Recommended Citation

Lai, D. V. (2014). The Difference in Perception of Gerotranscendence between College Students and Healthy, Community-Dwelling Older Adults [Master's thesis, Minnesota State University, Mankato]. Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. <https://cornerstone.lib.mnsu.edu/etds/349/>

This Thesis is brought to you for free and open access by the Graduate Theses, Dissertations, and Other Capstone Projects at Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. It has been accepted for inclusion in All Graduate Theses, Dissertations, and Other Capstone Projects by an authorized administrator of Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.

Running head: DIFFERENCE IN PERCEPTION OF GEROTRASCENDENCE

The Difference in Perception of Gerotranscendence between College Students and Healthy,
Community-Dwelling Older Adults

By

Duc Lai

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master's Degree

In

Clinical Psychology

Minnesota State University, Mankato

Mankato, Minnesota

May, 2014

DIFFERENCE IN PERCEPTION OF GEROTRASCENDENCE

The Difference in Perception of Gerotranscendence between College Students and Healthy, Community-Dwelling Older Adults

Duc Lai

This thesis has been examined and approved by the following members of the student's committee.

(Jeffrey Buchanan, Ph.D.), Advisor

(Donald Ebel, Ph.D.), Committee Member

(Eric Sprankle, Ph.D., L.P.),
Committee Member

DIFFERENCE IN PERCEPTION OF GEROTRASCENDENCE

The Difference in Perception of Gerotranscendence between College Students and Healthy, Community-Dwelling Older Adults

Duc Lai

Master's of Clinical Psychology Program

Minnesota State University, Mankato

Abstract

Within the field of gerontology, some notable attempts to explain the aging process include activity theory, disengagement theory, Erikson's eight stages model, and socioemotional selectivity theory. The theory of gerotranscendence, recently developed by Lars Tornstam (1989), incorporates some aspects of these theories, and seeks to provide an overarching theme to the process of aging. The theory of gerotranscendence explains a shift in meta-perspective that a person experiences as they live, from a more materialistic and pragmatic view of the world to a more cosmic and transcendent one. Corresponding with this shift, the gerotranscendent individual exhibits certain behaviors, some of which have been considered by nursing staff, in previous research, to be signs of pathology. The purpose of this study is to examine the findings of previous research and study the difference in perception of gerotranscendence between college students and older adults. This was done by quantifying the perception of these behaviors as they are described within a specific context of a narrative about an older adult living in a facility. It was hypothesized that older adults would be less likely to rate these behaviors as "unusual" or "concerning". Results of this study found some evidence in support of previous findings and our hypothesis. Some behaviors of gerotranscendence were found to be unusual or concerning by our college student sample, and college students were also more likely than older adults to rate these behaviors as concerning or unusual.

Table of Contents

Introduction.....1
Method.....13
Results.....20
Discussion.....25
References.....29
Appendix A.....32
Appendix B.....33
Appendix C.....58
Appendix D.....59

Introduction

Within the field of gerontology, significant effort has been devoted to understanding the fundamental nature of how people change psychologically as they age. This includes attempts to explain how elders' self-perceptions change over time, how an elders' relationship with others and society in general may change, and what is the "optimal" way to age successfully. However, this process hasn't proven to be easy, as evidenced by the field's current data-rich, explanation-poor status (Achenbaum & Bengtson, 1994). However, this does not mean that there is a lack of theories in the literature attempting to explain this process. Over the past few decades, the amount of explanations given for the normal process of aging has been numerous (i.e. Carstensen, 1992; Cumming & Henry, 1961; Erikson, 1966; Havighurst, 1961). Nonetheless, despite some of these theories' claim as an overarching theory of aging, none of them have provided a clear and empirically-supported process of aging. Within recent years, one theory has emerged from this field that appears to hold some theoretical and empirical hope. While fundamentally different from other theories, the theory of gerotranscendence, developed by Lars Tornstam (1989), appears to resemble some aspects of other theories. Therefore, it is necessary to consider some of these theories in order to put the theory of gerotranscendence into historical perspective.

Prominent Theories of Aging

Activity theory.

The activity theory, also called the implicit theory of aging, was developed by Havighurst (1961). According to this theory, older adults still have the same psychological and social needs as when they were younger. However, because society withdraws from the aging individual,

people are forced to give up their roles (e.g., employee, parent) and decrease social interactions. When the loss of roles occurs, an individual can experience loss of identity, low self-esteem, low well-being, and isolation. In order to experience successful aging, the individual should remain productive in society and replace role losses with new roles and increase social interaction. Activity theory has received much empirical support within the literature and has been endorsed by a majority of researchers (Adams, Leibbrandt, Moon, 2011; Knapp, 1977; Maddox, 1963). The theory is appealing in its optimism and the possibilities of later life. For gerontologists, the implication of this theory is a more positive model of care for older adults, moving away from the negative social stigma that people have about the harsh treatment of older adults by society. There is also a positive relationship between morale and level of activity in older adults (Maddox, 1963). Individuals who had a higher level of activity reported higher morale in later life. It is important to note that within Maddox's study, he also found a substantial number of "deviant" cases in which high morale is maintained despite low activity. This phenomenon is explained away as due to other variables having moderating effects on the relationship between age and morale. Maddox also hinted at a possibility that amongst elderly individuals, the older group within that population may possess characteristics that can ameliorate the effects of low activity on morale.

Despite its widespread endorsement and its dominance in the current 'healthy aging' paradigm being used in living facilities, activity theory is not without criticism. It appears that well-being may influence the level of activity more than activity influences well-being (Janke, Nimrod & Kleiber, 2008). Healthy individuals may have more opportunities and are able to participate in more activities than less healthy individuals. And although they generally agree that activity is good, some individuals working with older adults have reported feeling that they

are doing something wrong when trying to activate older adults by bringing them to activities even when elders express a preference for being alone (Tornstam, 1989). At the same time, the activity theory does not explain why majority of older adults, who are supposedly motivated to replace role losses and increase social interaction, do not take advantage of senior centers (Carstensen, 1992). Also, different variations in the aging process are not taken into account (Adams et al., 2011). Individual differences in age, gender, race, disability, preferences for activity and type of activity may all influence the level of activity a person engages in. Furthermore, it may not be wise to impose the middle-aged standards of success to older adults (Kalish, 1972). Because of the major life events associated with aging (e.g., retirement, widowhood), it is inevitable that aging individuals will experience role losses. Therefore, holding older adults to the standards of young and middle-aged people may cause more unhappiness and discomfort in the older individuals, especially if those standards are not met.

Disengagement theory.

Disengagement theory is similar to activity theory in that it focuses on the loss of roles and the degree of activity the individual participates in. However, in direct contrast to the activity theory, the disengagement theory proposes that an aging individual and society mutually withdraw from each other in order to prepare for the eventual exit of the individual from society (Cumming & Henry, 1961). As people age, they slowly give up the roles and functions they previously held in society and gradually transfer that role onto the younger generation. The process of withdrawal and role losses, while inevitable, are seen as positive and even welcomed by the individual. Thus, successful aging depends on an individual being able to successfully complete this process of disengagement. This process of disengagement was described as a culture-free process, but its form will always be culture-bound. Individuals of all gender, race,

and culture will experience disengagement. However, the form and the timing of this process will differ between groups and cultures. For example, in American society, disengagement is more difficult for men than for women (Cumming & Henry, 1960). Since its conception, disengagement theory has received a great deal of criticism resulting in it being discredited as a viable theory for aging (Achenbaum & Bengtson, 1994). The first criticism came from gerontologists and psychologists who were outraged at the notion of encouraging society and individual to withdraw from each other as a natural and desirable process of aging (Whitbourne & Whitbourne, 2008). The theory of disengagement was thought of as reinforcing and validating the harsh treatment of society towards older adults.

Furthermore, at its core, there appears to be fundamental and conceptual problems with the theory of disengagement. Upon revisiting the data collected during the Kansas City Study of Adult Life, Havighurst, Neugarten and Tobin (1968) did not reach the same conclusions as did Cumming and Henry (1961). The same data that led to Cumming and Henry's conclusion of the theory of disengagement also provided support for the influence of engagement and activity on life-satisfaction. Thus, there appears to be evidence in support for both the activity theory and the disengagement theory. Additionally, according to Hochschild (1975), there are three major criticisms of this theory. First, it is not clear which aspect of disengagement is universal, and which is culture-bound. Because of this, the theory is unfalsifiable as any counter-evidence (i.e., an engaged older individual) could be explained away as another form or variation of disengagement. Secondly, the variables of disengagement appear to be made up of sub-variables that do not change in a unitary way as proposed by the disengagement theory (Hochschild, 1975). According to Carp (1968), disengagement is not the same process for every activity and context. There are multiple dimensions and forms of disengagement, the form that disengaging

from material possessions or activity takes can be different from the form that disengagement from social interaction takes. Third, similar to the activity theory, disengagement theory appears to ignore the meaning that individuals attribute to activity and disengagement (Hochschild, 1975). Disengagement is a process that can happen sometimes with some individuals, and may produce satisfaction. However, it is by no means a universal process and not an all-encompassing theory of aging as researchers had hoped it would be. After receiving waves of criticisms for its social implication and theoretical underpinnings, the theory of disengagement was discredited and the authors who worked on this theory appeared to have moved onto other areas and stopped their research on it (Achenbaum & Bengtson, 1994). A search of the literature finds few articles after 1995 that examine disengagement theory. However, the disengagement theory is far from irrelevant in today's context, as some aspects of its theoretical foundation are still present in other contemporary models of aging (Tornstam, 1989; Carstensen, 1992).

Erikson's ego vs. integrity.

Aside from activity theory and disengagement theory, Erikson (1966) has attempted to describe the process of aging through his developmental model. Erikson's eight-stage model is characterized by the development of the ego identity through resolving the conflict of each stage. The individual experiences a sense of mastery if the stage is handled well, and a sense of adequacy if the stage is managed poorly. During Erikson's eighth stage, the ego-integrity stage, the individual reflects on their past experiences in life. If the individual is satisfied with his life, he successfully resolves this stage and attains wisdom and acceptance of death. Failure in this stage leads to regret and despair and a fear of death. Aside from a vague definition of wisdom, Erikson's model also does not appear to be a universal process (Tornstam, 1989). In a community of old Druze males, individuals who appear to have attained wisdom are not satisfied

with their past life experiences. Instead, they considered their younger selves as ignorant. Furthermore, it appears the eighth stage was formulated somewhat prematurely and does not represent actual experiences of older adults (Dalby, 2006). When the eighth stage was developed, neither Erik nor Joan Erikson was in that particular stage of development. Firsthand experience at late life has led Joan Erikson to reconsider the idea that older adults commonly feel wise at this stage. Instead, older adults may appear wise to others but may not feel wise themselves. Furthermore, Erikson's eighth stage failed to make mention of an individual's sense of spirituality and how it may change as one ages. Consequently, Joan Erikson incorporated a discussion of spirituality in her proposed ninth stage of development.

Socioemotional selective theory

It is generally agreed by gerontologists that the rates of social interaction decline in old age (Carstensen, 1992). Socioemotional selectivity theory (SEST) proposes that the reduced rates of interaction in late life are the result of a life-time process of cultivating the individual social network to maximize positive interactions and minimize negative interactions. According to this model, the individual spends much of early life acquiring information from social interactions in order to select his or her social network. As the person ages, they spend less time acquiring information and become more selective in their social interactions. Because there is a cost to social interaction, individuals in late life prefer to socialize with certain individuals in order to maximize the chance for a pleasant social interaction. Consistent with the theory, Fredrickson and Carstensen (1990) found that older individuals were more likely to interact with a familiar partner than with a novel partner. Furthermore, evidence also shows support for this theory as a life-time process, as this selective process for social interactions starts when individuals are in adulthood and extends to late life (Carstensen, 1992). Unlike activity theory and disengagement

theory, SEST considers the meaning that individuals attribute to activity and disengagement. Furthermore, it appears to explain the reason why the process of disengagement is not unitary. Because of the individual meaning attributed to social interactions, individuals are more likely to engage in certain social activities than others.

Theory of Gerotranscendence

Gerotranscendence is a theory recently developed by Tornstam (1989) that has been considered by some to be an extension, or a rework of the disengagement theory (Adams, 2000; Schroots, 1996; Tornstam, 1997a, 1997b). According to Tornstam (1997a), the process of human aging has a predisposition to a progression towards maturation and wisdom, a stage of gerotranscendence - a shift in meta-perspective, from a materialistic and pragmatic view of the world to a more cosmic and transcendent one. This process of gerotranscendence is usually followed by higher life satisfaction. According to the theory, “the individual experiences a feeling of cosmic communion with the spirit of the universe, a redefinition of time, space, life and death, and a redefinition of self. This individual might also experience a decreased interest in material things and a greater need for solitary meditation” (Thomas & Eisenhandler, 1994). According to Tornstam (1997a), the individual experiencing gerotranscendence may experience ontological changes on three different levels:

The cosmic level:

Time and space. Changes in the definitions of time and space. For example the transcendence of borders between past and present.

Connection to earlier generations. Increasing attachment. Change from link to chain perspective.

Life and death. The disappearing fear of death and the new comprehension of life and death.

Mystery in life. Acceptance of the mystery dimension of life.

Subject of rejoicing: From grand events to subtle experiences. The joy of experiencing macro cosmos in micro cosmos.

The self

Self Confrontation. The discovery of hidden aspects of the self – both good and bad.

Decrease of self-centeredness. No longer being the center of the universe.

Development of body-transcendence. Taking care of the body but not being obsessed by it.

Self-transcendence. From egoism to altruism.

Rediscovery of the child within. Return to and transfiguration of childhood.

Ego-integrity. Realizing that the pieces of life's jigsaw puzzle form a wholeness.

Social and individual relationships

Changed meaning and importance of relationships. Becoming more selective and less interested in superficial relationships. Increasing need for solitude.

Role play. Understanding of the difference between self and role. Sometimes an urge to abandon roles. Sometimes a new comforting understanding of the necessity of roles in life.

Emancipated innocence. The addition of innocence to maturity.

Modern asceticism. The understanding of the petrifying gravity of wealth and the freedom of "asceticism".

Everyday wisdom. Understanding the difficulty in separating right from wrong and withholding from judgments and giving advice. Transcendence of the right and-wrong duality.

Based on this definition of gerotranscendence, it is easy to see the similarities between the gerotranscendence and other theories of aging. First, certain signs that are indicative of gerotranscendence (i.e., increased need for solitude, becoming selective) could be interpreted by others as disengaging from social activities. However, while gerotranscendence is sometimes considered an extension of disengagement theory, it is describing a different process altogether. First, disengagement theory is largely rooted within a positivist framework where the researcher is mainly interested in the behavior of the individual (Tornstam, 1989). The meaning is then given to behavior by the researchers. In fact, this has been a criticism of theories such as activity theory and disengagement theory that neglect the individual's feelings and cognitions. Furthermore, Tornstam (1996) pointed out some fundamental differences between the two theories. While disengagement implies a turning inward, gerotranscendence implies a new definition of reality. In contrast with disengagement theory, individuals with high

gerotranscendence also experience an increase in preferred social activities as well as an increase in need for solitude. Individuals with high degrees of gerotranscendence also exhibit coping patterns inconsistent with the predictions of disengagement theory. Last but not least, degree of social activity becomes less essential for life satisfaction at the higher levels of gerotranscendence (Thomas & Eisenhandler, 1994). This last point also appears to be consistent with the results found by Maddox (1963). Maddox's description of a moderating variable for the effect of activity on morale at late life may be a description of gerotranscendence. As the individual lives, they are transcending. Therefore, one might expect that the older seniors (e.g., 80+ years old), who are further along their transcendence, may experience a higher level of morale despite the same or lower level of activity than to a younger group (65-80 years old).

Aside from its roots in disengagement theory, gerotranscendence also appears to have similarities with other theories. Similar to Erikson's eighth stage, gerotranscendence is a process that ends with a higher state of maturity (Tornstam, 1997). In both cases, the mature state also includes contentment and a feeling of affinity with the past. However, the ego-integrity stage described by Erikson is a process of reflection and integration of the past with the same paradigm or perspective, while gerotranscendence implies a forward or outward direction under a new paradigm. Furthermore, there appears to be a spiritual component (i.e., increased feeling of cosmic communion) present in gerotranscendence that is not present in the ego-integrity stage. Because of this, it has been proposed that gerotranscendence is an extension or the next stage within Erikson's model (Dalby, 2006; Tornstam, 1996b).

Similar to the socio-emotional selectivity theory, the gerotranscendence theory also proposes that individuals who experience gerotranscendence "become more selective and less interested in superficial relationship" (Tornstam, 1997). Additionally, gerotranscendence is

considered a developmental process where the individual progresses towards gerotranscendence as a process of living, rather than a process of aging. This is indeed somewhat similar to the life-long model that is described by Carstensen (1992). However, aside from accounting for changes in socialization patterns, SEST does not attempt to explain other dimensions of aging.

Meanwhile, theory of gerotranscendence is a more comprehensive theory in that it attempts to explain other important dimensions of aging (i.e. solitary activities, changes within the self, outlook on life).

Empirical Support for the Theory of Gerotranscendence

Since its conception, the occurrence of gerotranscendence in older adults has been documented within the literature (Lewin, 2001; Tornstam, 1997a, 1997b). In 1997, Tornstam conducted a qualitative study of gerotranscendence with 50 adults between ages 50-72. After being educated on the theory of gerotranscendence, participants were then asked to describe their own experiences. The participants' description appeared to match with behaviors of gerotranscendence. In a separate study, drawing on results of previous studies, Tornstam conducted a survey study with 2002 participants aged 20-85 and found evidence in support of the cross-sectional age differences in gerotranscendence. In order to test its claim of universality, Lewin (2001) explored the impact of different cultural settings on gerotranscendent development. The results of the study showed support for the idea that gerotranscendence may be a universal process, but its form is culture-bound.

Aside documenting the phenomenon of gerotranscendent behaviors, other researchers have tried examining people's perception of the gerotranscendent individual (Tornstam & Tornqvist, 2000; Wadensten & Carlsson, 2001). Tornstam and Tornqvist (2000) approached a

group of nursing staff and asked if they had observed behaviors of gerotranscendence and their interpretations of those behaviors. Most behaviors described by Tornstam and Tornqvist (2000) were regarded by staff as undesirable behaviors. The staffs' interpretations of them were either pathology-oriented or activity-oriented. Staff either felt that the behavior was due to some form of pathology (i.e. dementia) or due to negative consequence of inactivity. This has an important implication for caregiving and interacting with older adults. If gerotranscendence is a normal developmental process, then the misinterpretation of gerotranscendence behaviors can lead to over-pathologizing of older adults. This may lead to an increase in institutionalization of older adults, misunderstanding in communication and unnecessary distress for those older adults who are forced to live according to the standards of younger people.

In a similar study, Wadensten & Carlsson (2001) conducted qualitative interviews with nursing staff and asked them to report behaviors indicative of gerotranscendence. The interviewer asked participants whether they had observed a particular behavior within healthy older adults. Then, participants were asked to provide a description of the behavior and how they interpreted these signs. The data was then coded in two stages. The first stage consisted of coding data that were clearly evident in the text, while the second stage consisted of coding data by providing interpretations what the staff had reported. Each behavior was classified as either pathological, normal, or unnoticed or invisible. The results of this study indicated that some behaviors of gerotranscendence may be harder to observe than others. Furthermore, among the more easily observable behaviors, the following specific behaviors appeared to staff as signs of pathology: changed perception of time and space, great capacity to take pleasure in the small things in life, new perspective on social contacts, withdrawal from social activities and

preference for and satisfaction with sitting alone and thinking, and display of innocent behaviors by asking questions or doing things not common to adults (Wadensten & Carlsson, 2001).

Purpose of the Current Study

The purpose of the current study is to extend the work of Tornstam and Tornqvist (2000) as well as Wadensten and Carlsson (2000) that examined how behaviors indicative of gerotranscendence are interpreted. However, this study proposes a different methodology than the one used by Wadensten and Carlsson. In place of a qualitative approach to measuring perception, a quantitative model is proposed in order to quantify the perception of gerotranscendence and determine significant differences between test groups. Furthermore, previous research done on gerotranscendence has examined the behaviors taken out of context. One goal of this study is to describe these behaviors within the context of a narrative about an older adult so the behaviors are more clearly defined and are less esoteric. Lastly, instead of testing the perceptions of nursing staff, this study aims to look at the differences in perceptions of gerotranscendence between a population of younger people (e.g. college students) and older adults. Older adults may be more familiar with gerotranscendence, either through observing it occur in other older adults or having experienced it themselves. Therefore, it is expected that significant differences between older adults and college students in perception of gerotranscendence will occur. This study specifically examined differences in perception concerning behaviors that were found to be signs of pathology by Wadensten & Carlsson (2000). It is hypothesized that older adults will be less likely than college students to perceive these behaviors as unusual or concerning.

Method

Participants

College students.

The first group of participants consisted of college students recruited from undergraduate courses at a Midwestern university. These participants were asked to participate in research done by psychology faculty and graduate students in order to receive class credits. To minimize coercion, students were allowed to choose an alternative to participation in research and able to choose which particular research project they want to participate in. The sample of college students completed the electronic form of the survey.

Older adults.

The second group of participants consisted of older adults (i.e., those over the age of 65). The older adult sample was recruited using two different recruitment methods. The first group of older adults was recruited from various senior community centers in a small metropolitan area. Individuals who chose to participate were given a choice of completing the survey online or in paper form. A second group of older adult participants was recruited from a population of nuns residing in a convent in a small Midwestern city. All individuals from this sample of older adults completed the survey in paper form.

Demographic results.

Amongst the 273 responses considered for this study, demographic information was not collected for 93 participants. Demographic information was collected once the data collection process had started with older adults. Therefore, all of the responses missing demographic data

were college student responses. Among the responses, 170 were of college students, and 103 were of older adults. Of the collected demographic data, 31 (17.2%) were male, and 149 (82.8%) were females. The sample was also ethnically non-diverse, with 160 (90.9%) responses identifying as Caucasian. The majority of the sample (134, 74.9%) also indicated having no experience taking care of older adults. Demographic results can be found in Table 1.

Table 1

<i>Demographic Information</i>		College students	Older adults	Total
Group Size		170 (61.6%)	103 (37.3%)	273
Gender				
	Male	12 (6.7%)	19 (36.1%)	31 (17.2%)
	Female	65 (10.6%)	84 (46.7%)	149 (82.8%)
	Total ^a	77 (42.8%)	103 (57.2%)	180
Ethnicity				
	Caucasian	62 (35.2%)	98 (55.7%)	160 (90.9%)
	African American	6 (3.4%)	1 (0.6%)	7 (4.0%)
	Asian	4 (2.3%)	0 (0%)	4 (2.3%)
	Hispanic/Latino	1 (0.6%)	0 (0%)	1 (0.6%)
	Other	2 (1.1%)	2 (1.1%)	4 (2.3%)
	Total ^a	75 (42.6%)	101 (57.4%)	176
Care Experience				
	Yes	22 (12.3%)	23 (12.8%)	45 (25.1%)
	No	54 (30.2%)	80 (44.7%)	134 (74.9%)
	Total ^a	76 (42.5%)	103 (57.5%)	179
Religion				
	Catholic	32 (17.9%)	56 (31.3%)	88 (49.2%)
	Protestant	3 (1.7%)	41 (22.9%)	44 (24.6%)
	Muslim	2 (1.1%)	0 (0%)	2 (1.1%)
	None (Atheist, agnostic)	12 (6.7%)	2 (1.1%)	14 (7.8%)
	Other	28 (15.6%)	3 (1.7%)	31 (17.3%)
	Total ^a	77 (43.0%)	102 (57.0%)	179

Note. ^a The total number represented here refers to the number of participants for whom demographic information was available

Survey Measure

Demographic information.

Participants were asked to provide demographic information. Information requested included ethnicity, age, gender, whether the individual had experience caring for older adults, how many friends over the age of 65 the individual has, religious preference, and education status (for college students only). This form can be found in Appendix A.

Gerotranscendence Survey.

Perceptions of behaviors indicative of gerotranscendence were measured using an instrument created by the author's research team. For this survey, participants were first asked to read instructions about the survey (e.g., how it is to be completed). Following the instructions, a short introduction to a man named Mr. Smith, a resident living in an assisted living facility, was provided. This introduction was two paragraphs long and described Mr. Smith's social, occupational, and health history. After this introduction, a series of three short stories about Mr. Smith's current life in the assisted living facility were provided. Each story contained examples of behaviors indicative of gerotranscendence. All of these behaviors were rationally derived based on the description of gerotranscendence resulted from the qualitative study done by Tornstam (1997b). In total, there were 18 different behaviors in the three stories indicative of the three different dimensions of gerotranscendence (i.e., cosmic, self, and social and interpersonal relationship dimensions). Story one contained five behaviors, story two contained ten behaviors, and story three contained three behaviors.

After each story, participants were asked to provide four ratings about each behavior indicative of gerotranscendence that were contained in the story they just read. On a scale of 1 to

4, where 1 means strongly disagree and 4 means strongly agree, participants were asked to rate each behavior using the following scales : “this behavior is common in other older adults”, “there is nothing unusual about this behavior”, “I have observed behavior similar to this”, “someone should be concerned about this behavior”. After rating all 18 behaviors, participants were also asked to rate their perception of Mr. Smith’s overall life satisfaction, mood and how normal he is compared to others his age. The survey can be found in Appendix B.

Data Analysis

Exclusion criteria.

Because “older adult” was defined as age 65 and older for this study, data from individuals who reported an age between 50 and 65 were excluded from the study (three responses were excluded using this criterion). For all the responses collected electronically, responses that were completed in less than eight minutes were excluded from the study. The rationale behind excluding these responses was to reduce the chance of people responding randomly to the survey questions. Because the survey is quite lengthy and requires the participants to do some reading, responses that were under eight minutes were deemed to be unrealistic. The eight minute criterion was created after the author himself took the electronic survey multiple times. Of the 219 electronic responses, 21 responses (all college students) were excluded using this criterion.

Target behaviors.

Within the five groups of behaviors indicated by Wadensten and Carlsson (2001) as signs of pathology by nursing staff, there were eight behaviors within the survey that fell into these five groups. A description of these behaviors can be found in Table 2. For each of these eight

behaviors, the researcher tested for group between-group differences in responding on two questions: “there is nothing unusual about this behavior” and “someone should be concerned about this behavior”. This resulted in a total of 16 between-group analyses. Between-group differences for only these two questions were examined for two reasons. First, based on the results of a previous pilot study and factor analysis with this same instrument, it was determined that these two items belong to one factor. Second, these two questions appear to measure the constructs of abnormality (unusual) or pathology (concerning), two constructs that were similar to the ones measured in Wadensten and Carlsson (2001).

Table 2.

Descriptions of Targeted Behaviors.

Description of Targeted Behavior	
Changed perception of time and space	
Story 1, Behavior 1	Mr. Smith described experiencing memories in great detail and that, “it is almost as if I am there again” and that, “it is like I can go back in time and relive parts of my childhood.”
Great capacity to take pleasure	
Story 1, Behavior 5	His joy now comes from things such as listening to a thunderstorm, watching it snow, hearing the birds chirping in the morning outside his window, and reading the newspaper. He also very much looks forward to getting his mail and his occasional visits from his children and grandchildren.
New perspective on social contacts	
Story 2, Behavior 4	Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat instead of his usual suit. He commented to his daughter that, “I don’t need to impress anyone anymore.”
Story 2, Behavior 6	He regularly gives money to his grandchildren, buys gifts for them, and even calls them and writes to them. His daughter mentioned that, “he’s showing more interest in my family than he ever has before.”
Story 3, Behavior 3	He wants to talk to people he already knows and likes and isn’t interested in making new friends. He remarked, “I don’t have the time or energy to make new friends, I’ll stick with the people I already know I like.”
Withdrawal from social	

activities and preference for solitude

- Story 3, Behavior 1 Although he has many old acquaintances and colleagues in town, he does not visit them nor does he invite them to visit him. He also socializes little in the facility.
- Story 3, Behavior 2 Staff always let him know when activities are, but he rarely agrees to participate. He has mentioned how he prefers his “alone time” so he can sit, think and reflect on his past.

Display of innocent behaviors

- Story 2, Behavior 9 He has been observed playing Barbies with one of his granddaughters, the Wii with his grandsons, and has taken up building model cars which was a hobby of his when he was a boy. He told his daughter that he doesn’t care if others think his behavior is silly or undignified and that, “at my age I’m going to act how I want to act.”

Statistical analyses.

According to Dalby (2006), there appears to be an increase in spirituality or some aspects of gerotranscendence with age. Therefore, it is possible that there is a difference in perception or level of gerotranscendence between the two older adult samples recruited for this study. However, significant differences were not found for these two groups for any of the target behaviors. Therefore, for the purpose of data analysis, the two samples of older adults will be treated as a homogeneous group.

Independent samples t-test were used to test for group differences between older adults and college students. Because a total of 16 statistical tests were conducted, a Bonferroni correction was used to minimize the likelihood that a significant finding would occur by chance. This resulted in a critical alpha level of 0.003. Also, given the large differences in the sample sizes, the Levene’s test of equality of variances was computed to determine the assumption of homogeneity of variances between the samples was met. Effect sizes (Cohen’s d) were also

calculated as another means for determining the magnitude of between-group differences. Additionally, for the purpose of data analysis, the item “there is nothing unusual about this behavior” is reverse coded such that a high score indicates perception of behavior as highly unusual.

Results

For behavior one of story one (e.g., changed perception of time and space – “experiencing memories in great detail: ‘It’s almost as if I am there again’”), the results of a two-tailed independent sample t-test showed a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(269) = 6.375, p < 0.00$. The effect size for this analysis ($d = 0.81$) was found to exceed Cohen’s (1988) convention for a large effect ($d = .80$). Results indicated that older adults ($M = 1.46, SD = 0.727$) were less likely than college students to rate the behavior as unusual ($M = 2.05, SD = 0.761$). There was also a significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(268) = 4.933, p < 0.00$. A moderate effect size was found for this analysis ($d = 0.63$). Results indicated that older adults ($M = 1.52, SD = 0.743$) were less likely than college students ($M = 2.01, SD = 0.809$) to rate this behavior as concerning.

For behavior five of story one (e.g., great capacity to take pleasure – “his joy now comes from listening to thunderstorm, birds chirping, reading the newspaper”), results of a two-tailed independent sample t-test did not show a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(252.98) = 2.404, p > 0.003$. A moderate effect size was found for this analysis ($d = 0.29$). There was also no significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(267) = 1.254, p > 0.003$. A small effect size was found for this analysis ($d = 0.15$).

For behavior four of story two (e.g., new perspective on social contacts – Mr. Smith going to lunch in sweatpants because he doesn’t need to impress anyone), results of a two-tailed independent sample t-test showed a significant difference between older adults and college

students on the item indicating “unusuality” of the behavior, $t(265) = 5.681$, $p < 0.00$. The effect size for this analysis ($d = 0.73$) was moderate. Results indicated that older adults ($M = 1.57$, $SD = 0.688$) were less likely than college students to rate the behavior as unusual ($M = 2.13$, $SD = 0.837$). There was also a significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(265) = 6.300$, $p < 0.00$. A large effect size ($d = 0.81$) was found for this analysis. Results indicated that older adults ($M = 1.54$, $SD = 0.771$) were less likely than college students ($M = 2.19$, $SD = 0.833$) to rate this behavior as concerning.

For behavior six of story two (e.g., new perspective on social contacts – regularly giving money to grandchildren and showing more interest in family members), results of a two-tailed independent sample t-test did not show a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(263) = -0.199$, $p > 0.003$. The effect size for this analysis ($d = 0.02$) was small. There was also no significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(265) = 2.300$, $p > 0.003$. A small effect size was found for this analysis ($d = 0.30$).

For behavior nine of story two (e.g., display of innocent behavior – Mr. Smith plays Barbie dolls and Wii with his grandchildren), results of a two-tailed independent sample t-test did not show a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(265) = 1.246$, $p > 0.003$. A small effect size was found for this analysis ($d = 0.16$). There was also no significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(265) = 2.134$, $p > 0.003$. A small effect size was found for this analysis ($d = 0.28$).

For behavior one of story three (e.g., withdrawal from social activity and preference for solitude – Mr. Smith not visiting friends and socializes little within the facility), result of a two-tailed independent sample t-test showed a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(266) = 9.189$, $p < 0.00$. A large effect size was found for this analysis ($d = 1.14$). Results indicated that older adults ($M = 1.89$, $SD = 0.723$) were less likely than college students to rate the behavior as unusual ($M = 2.67$, $SD = 0.635$). There was also a significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(165.31) = 7.09$, $p < 0.00$. A large effect size ($d = 0.93$) was found for this analysis. Results indicated that older adults ($M = 2.05$, $SD = 0.941$) were less likely than college students ($M = 2.83$, $SD = 0.718$) to rate this behavior as concerning.

For behavior two of story three (e.g., withdrawal from social activity and preference for solitude – staff lets Mr. Smith know when activities are, but he prefers solitude), result of a two-tailed independent sample t-test showed a significant difference between older adults and college students on the item indicating “unusuality” of the behavior, $t(266) = 7.646$, $p < 0.00$. A large effect size was found for this analysis ($d = 0.96$). Results indicated that older adults ($M = 1.85$, $SD = 0.716$) were less likely than college students to rate the behavior as unusual ($M = 2.54$, $SD = 0.716$). There was also a significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(178.85) = 6.132$, $p < 0.00$. A large effect size ($d = 0.79$) was found for this analysis. Results indicated that older adults ($M = 2.08$, $SD = 0.929$) were less likely than college students ($M = 2.76$, $SD = 0.770$) to rate this behavior as concerning.

For behavior three of story three (e.g., new perspective on social contacts – Mr. Smith prefers interacting with familiar people instead of making new friends), result of a two-tailed independent sample t-test showed a significant difference between older adults and college

students on the item indicating “unusuality” of the behavior, $t(222.45) = 8.099$, $p < 0.00$. A large effect size was found for this analysis ($d = 1.01$). Results indicated that older adults ($M = 1.78$, $SD = 0.660$) were less likely than college students to rate the behavior as unusual ($M = 2.48$, $SD = 0.718$). There was also a significant difference between the two groups on the item indicating how “concerning” this behavior was, $t(265) = 5.365$, $p < 0.00$. A moderate effect size ($d = 0.66$) was found for this analysis. Results indicated that older adults ($M = 2.01$, $SD = 0.904$) were less likely than college students ($M = 2.56$, $SD = 0.741$) to rate this behavior as concerning. Refer to Table 3 for a summary of results.

Table 3.

Scores for Group Means, Standard Deviation, t-tests and Cohen's d

	Mean		t	Cohen's d
	College students	Older adults		
Story 1, behavior 1				
Unusual ^a	2.05 (0.761)	1.46 (0.727)	6.375*	0.81
Concerning	2.01 (0.809)	1.52 (0.743)	4.999*	0.63
Story 1, behavior 5				
Unusual ^a	1.40 (0.728)	1.21 (0.571)	2.404	0.29
Concerning	1.40 (0.669)	1.30 (0.624)	1.254	0.15
Story 2, behavior 4				
Unusual ^a	2.13 (0.837)	1.57 (0.688)	5.681*	0.73
Concerning	2.19 (0.833)	1.54 (0.771)	6.300*	0.81
Story 2, behavior 6				
Unusual ^a	1.58 (0.681)	1.59 (0.727)	-0.199	-0.03
Concerning	1.63 (0.731)	1.42 (0.671)	2.300	0.30
Story 2, behavior 9				
Unusual ^a	1.68 (0.747)	1.56 (0.729)	1.246	0.16
Concerning	1.65 (0.719)	1.45 (0.718)	2.134	-0.28
Story 3, behavior 1				
Unusual ^a	2.67 (0.635)	1.89 (0.723)	9.189*	1.14
Concerning	2.83 (0.718)	2.05 (0.941)	7.090*	0.93

Story 3, behavior 2				
Unusual ^a	2.54 (0.716)	1.85 (0.716)	7.646*	0.96
Concerning	2.76 (0.770)	2.08 (0.929)	6.132*	0.79
Story 3, behavior 3				
Unusual ^a	2.48 (0.718)	1.78 (0.660)	8.099*	1.015
Concerning	2.56 (0.741)	2.01 (0.904)	5.365*	0.66

Note. * $p < 0.003$, two-tailed. ^a The means represented here were based on reverse scores of the item. Standards Deviations appear in the parenthesis next to the group means.

Discussion

The results of the statistical analyses appear to reject the null hypothesis for some behaviors but not for all behaviors. There were a total of five behaviors where college students were significantly more likely to rate the behaviors as unusual or concerning than older adults. These behaviors included Mr. Smith describing his past experiences and experiencing life in both the present and the past simultaneously, Mr. Smith underdressing for occasions because he doesn't feel like impressing people anymore, Mr. Smith withdrawing from social activities, preferring solitude to social activities, and being selective in his social interactions (e.g., not wanting to meet new people)

Aside from these significant findings, there were three behaviors where no significant differences were found between the two groups of college students and older adults. These behaviors included Mr. Smith feeling pleasure and joy at the small things in life, Mr. Smith sudden interests in his children and grandchildren, Mr. Smith partaking in playing Barbie dolls and video games with his nephew

The results of this study appear to provide some support for the findings of Wadensten and Carlsson (2001) in that some behaviors indicative of gerotranscendence may be perceived as pathological or unusual by others, as is evidenced by college student responses, particularly for behaviors one, two, and three of story three. However, except for these behaviors, the other target behaviors had relatively low mean ratings across the two groups regarding how unusual or concerning they were. Therefore, it appears that gerotranscendent behaviors were not perceived as very concerning for the samples within our study. One possible explanation for this finding is that by putting the behaviors of gerotranscendence within the context of a narrative about a "real" person, these behaviors may be perceived as less unusual and concerning. Another

possible explanation has to do with the samples used in this study compared to the nursing staff sample used by Wadensten and Carlsson (2001). It is possible that individuals who are in a caregiving role or are more familiar with pathology (e.g., nursing staff) may be more prone to pathologizing these behaviors.

Secondly, the findings of this study partially supported the researcher's hypothesis. There was a difference in perception of gerotranscendence by college students and older adults with regard to some specific behaviors. Some behaviors of gerotranscendence are more likely to be perceived as pathological or unusual amongst younger adults compared to older adults. Amongst the eight gerotranscendent behaviors corresponding with the signs indicated by nursing staff as possible signs of pathology, older adults and college students differed on five of them on how they perceive the behavior. This has important implications for aging in general. Behaviors that are indicative of a normal developmental process such as gerotranscendence may be incorrectly pathologized by other people. This perceived pathology of others may affect the interactions of the individual with other people. Furthermore, based on this perceived pathology, caregivers and family members may push the individual to engage in activities that they do not want to, in hopes that they improve.

On the other hand, not all behaviors of gerotranscendence examined in this study are viewed as concerning or unusual by the lay population. Additionally, the results of this study may provide some insight for nursing staff who are working with older adults. Understanding that this is a natural developmental process experienced by older adults may help caregivers (i.e., nursing staff, family members) provide more sensitive care to older adults. It may be recommended that when younger people observe certain behaviors that appear unusual or concerning, entering into a dialogue with an older individual about the meaning of these

behaviors will be more productive than attributing these behaviors to some pathological process such as depression.

Limitations and Future Directions

Although the current study found some exciting results, there are some weaknesses to the current design. One limitation of this study is the length of the survey. It is possible that the length of the survey may result in fatigue, which can lead to random responding, particularly near the end of the survey. Furthermore, contextual variables described in the survey that are not related to gerotranscendence may be influencing perception of these behaviors. For example, Mr. Smith was described as an 85 years old Caucasian male living in an assisted living facility. It is possible that the age, race, gender, living arrangements of the individual described in the story may influence how others perceived these behaviors. If these contextual variables were to be manipulated within the survey, possible differences in responding between the two forms of the surveys may arise. Future research could involve manipulating certain contextual features of the vignettes (e.g., compare vignettes with a male vs. female character) to determine if these variables change perceptions of gerotranscendent behaviors.

Additionally, although the behaviors indicative of gerotranscendence were rationally-derived based on the work of Tornstam, the psychometric properties of this survey are unknown. It should be noted, however, that a form of content validation was obtained when Lars Tornstam reviewed this survey and indicated that the stories indeed describe an individual who is experiencing gerotranscendence. Lastly, the target behaviors used in this study and the behaviors described by Wadensten and Carlsson (2001) may not represent the same groups of behaviors. Although the targeted behaviors used in our survey are intended to exemplify the same behaviors

previously described by Wadensten and Carlsson, it is possible that the behaviors may be viewed differently. For example, behavior 4 of story 2 is intended to exemplify Mr. Smith's new perspective on social contacts by describing him as underdressing for social occasions because he doesn't need to impress other people. Participants rating this behavior may be rating it based on his dressing behavior but not the change in perspective on social contacts. Another limitation of this study is the lack of ethnic diversity within the sample, as all were recruited from the upper Midwestern United States.

Although the process of gerotranscendence is a normal developmental process, is it possible that the perception that some of these behaviors are signs of pathology may be true or accurate? Perhaps the behaviors exhibited by these individuals also correlate with other undesirable behaviors. Future research should examine the correlation between these behaviors and psychopathology such as depression. The current study has addressed the difference in perception of gerotranscendence between college students and older adults. It would also be a good research direction to divide the older adults into groups (i.e., 65-74 and 75-84). It is possible that individuals who are older may experience a higher degree of gerotranscendence, and could perceive these behaviors as more normal than their younger counterparts. Another possible research direction is examining the perception of institutionalized individuals. Our study examined the perception of older adults who are still relatively independent and living in the community. Perhaps, the perception of those living in an institution would be different. Future research should also focus on how caretaking experience can affect this perception. Because the majority of our sample (74.9%) indicated that they had no caretaking experience of older adults, it may explain the discrepancies between our findings and Wadensten and Carlsson (2001)'s findings. It is possible that those with care experience may be more prone to pathologizing.

References

- Achenbaum, W. A., & Bengtson, V. L. (1994). Re-engaging the disengagement theory of aging: On the history and assessment of theory development in gerontology. *The Gerontologist*, 34(6), 756-763.
- Adams, K. B. (2000). *Depressive symptoms, depletion or developmental change? multidimensionality in the geriatric depression scale according to contemporary interpretations of the disengagement theory of aging*. (Order No. 9998795, University of Maryland, Baltimore). *ProQuest Dissertations and Theses*, 150-150 p.
- Adams, K. B., Leibbrandt, S., & Moon, H. (2011). A critical review of the literature on social and leisure activity and wellbeing in later life. *Ageing and Society*, 31(4), 683.
- Carp, F.M. (1968). Some components of disengagement. *Journal of Gerontology*, 23. 382-386.
- Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7(3), 331-338.
- Carstensen, L. L., & Turk-Charles, S. (1994). The salience of emotion across the adult life span. *Psychology and Aging*, 9(2), 259-264.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Psychology Press.
- Cumming, E., Henry, W.E. (1960). *Growing old: The process of disengagement*. New York, NY: Basic Books .
- Dalby, P. (2006). Is there a process of spiritual change or development associated with ageing? A critical review of research. *Ageing & mental health*, 10(1), 4-12.

- Erikson, E.H. (1966). Eight stages of man. *International Journal of Psychiatry*, 2(3), 281-300.
- Fredrickson, B. L., & Carstensen, L. L. (1990). Choosing social partners: how old age and anticipated endings make people more selective. *Psychology and aging*, 5(3), 335.
- Havighurst, R. J. (1961). Successful aging. *The Gerontologist*.
- Havighurst, R. J., & Neugarten, B. L., Tobin. S.S. (1968). Disengagement and patterns of aging. *Middle age and aging*, 161-172.
- Hochschild, A. R. (1975). Disengagement theory: A critique and proposal. *American Sociological Review*, 553-569.
- Joung, H. M., & Miller, N. J. (2007). Examining the effects of fashion activities on life satisfaction of older females: Activity theory revisited. *Family and Consumer Sciences Research Journal*, 35(4), 338-356.
- Janke, M. C., Nimrod, G., & Kleiber, D. A. (2008). Leisure activity and depressive symptoms of widowed and married women in later life. *Journal of Leisure Research*, 40(2), 250-266.
- Knapp, M. R. (1977). The activity theory of aging an examination in the English context. *The Gerontologist*, 17(6), 553-559.
- Kalish, R. A. (1972). Of social values and the dying: A defense of disengagement. *Family Coordinator*, 81-94.
- Lewin, F. A. (2001). Gerotranscendence and different cultural settings. *Ageing and Society*, 21(4), 395-416.

- Maddox, G. L. (1963). Activity and morale: A longitudinal study of selected elderly subjects. *Social forces*, 42(2), 195-204.
- Schroots, J. J. (1996). Theoretical developments in the psychology of aging. *The Gerontologist*, 36(6), 742-748.
- Thomas, L. E., & Eisenhandler, S. A. (Eds.). (1994). *Aging and the religious dimension*. ABC-CLIO.
- Tornstam, L. (1989). Gero-transcendence: A reformulation of the disengagement theory. *Aging Clinical and Experimental Research*, 1(1), 55-63.
- Tornstam, L. (1997a). Gerotranscendence in a broad cross sectional perspective. *Journal of Aging and Identity*, 2(1), 17-36.
- Tornstam, L. (1997b). Gerotranscendence: The contemplative dimension of aging. *Journal of aging studies*, 11(2), 143-154.
- Tornstam, L., & Törnqvist, M. (2000). Nursing staff's interpretations of "gerotranscendental behavior" in the elderly. *Journal of Aging and Identity*, 5(1), 15-29.
- Whitbourne, S. K., & Whitbourne, S. B. (2010). *Adult development and aging: Biopsychosocial perspectives*. John Wiley & Sons.

Appendix A

1. Gender: M F
2. Age: _____
3. Ethnicity: _____
4. Please estimate how many older adults (people over the age of 65) you know well (e.g., family members, co-workers, or friends)? _____
5. Do you currently or have you ever worked in a long-term care facility such as a nursing home? <div style="text-align: center; margin-left: 100px;"> Yes No </div>
6. From the choices below, please circle which best describes your religious preference: Catholic Jewish Protestant Muslim None (atheist or agnostic) Other (please specify: _____)
7. Year in school (college students only): Freshman (0-30 credits completed) Sophomore (31-60 credits completed) Junior (61-90 credits completed) Senior (91+ credits completed) Graduated/No longer attending

Appendix B

Instructions:

You are going to be asked to read a series of short stories about an older adult who lives in a senior care facility. In these stories, the behavior of this older individual will be described in some detail. After reading each story, you will be asked to complete a rating scale concerning your opinions about the person's behavior.

Introduction/Demographics:

John Smith is an 85-year-old Caucasian male living in an assisted living facility. This facility is for older individuals who need some assistance with everyday tasks such as cooking, laundry, or making meals. Mr. Smith has struggled with health problems such as heart disease, prostate cancer, high blood pressure, and arthritis over the past several years. However, his health is currently stable and he is able to walk on his own with the use of a cane, manage his own medications, carry on conversations with others, and he has no problems with his memory. Mr. Smith has a Ph.D. in Chemistry was as a professor at the local university for 35 years before retiring. He was married for 52 years, but lost his wife to cancer about three years ago. About a year after his wife's death, he decided to move into the assisted living facility at the urging of his two adult children (a son who is 51 and a daughter who is 48) who both live in a different state. He has five grandchildren ranging in ages from 7 to 22.

You work in the facility Mr. Smith lives in and have known him since he moved into the facility two years ago. You see Mr. Smith frequently throughout the day, so know him fairly well. The following stories about Mr. Smith are written from your perspective – in other words, these stories are based on observations of him, conversations with his children when they visit, as well as direct interactions you have had with him during your work in the facility. Please read the following story carefully.

Story #1:

Over the past 6 months, Mr. Smith has been talking much more about his childhood. For example, he often tells stories to other residents about his life on the family farm and talks fondly about his deceased parents, siblings, and grandparents. He describes these memories in great detail and he has told his daughter that these memories are sometimes so vivid that, “it is almost as if I am there again” and that, “it is like I can go back in time and relive parts of my childhood.” You have also observed him at the facility’s computer nearly every day on Ancestry.com in an attempt to learn more information about his family of origin and how they arrived in the United States.

Mr. Smith has been dealing with various illnesses for the past several years and he has had to face his own mortality many times. For example, he had a heart attack eight years ago and was diagnosed with prostate cancer last year, which was successfully treated. Nonetheless, Mr. Smith mentions death nearly every day and yesterday commented, “Now I am not so sure what happens after we die. I guess I will find out soon enough – when it comes, it comes and I will be ready.” Having been trained as a scientist, Mr. Smith has always believed that most things about the world can be understood through science and reason. However, a few weeks ago he was talking with a former colleague and he commented that “perhaps some things will never be explained.”

Mr. Smith had many hobbies and interests when he was younger and he took great joy in conducting research at the university, publishing papers, going to professional conferences, and attending events at the university. Mr. Smith won many teaching awards and was well-regarded as an expert in his field. However, now he explains that his joy comes from things such as listening to a thunderstorm, watching it snow, hearing the birds chirping in the morning outside his window, and reading the newspaper. He also very much looks forward to getting his mail and his occasional visits from his children and grandchildren.

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: Mr. Smith described experiencing memories in great detail and that, “it is almost as if I am there again” and that, “it is like I can go back in time and relive parts of my childhood.”

Indicate how much you agree or disagree with the following statements about behavior #1:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Behavior #2: He often tells stories to other residents about his life on the family farm and talks fondly about his deceased parents, siblings, and grandparents. You have also observed him at the facility's computer nearly every day on Ancestry.com in an attempt to learn more information about his family of origin and how they arrived in the United States.

Indicate how much you agree or disagree with the following statements about behavior #2:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #3: Mr. Smith mentions death nearly every day and yesterday commented, “Now I am not so sure what happens after we die. I guess I will find out soon enough – when it comes, it comes and I will be ready.”

Indicate how much you agree or disagree with the following statements about behavior #3:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Behavior #4: Although he was trained as a scientist, a few weeks ago he was talking with a former colleague and he commented that “perhaps some things will never be explained.”

Indicate how much you agree or disagree with the following statements about behavior #4:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #5: His joy now comes from things such as listening to a thunderstorm, watching it snow, hearing the birds chirping in the morning outside his window, and reading the newspaper. He also very much looks forward to getting his mail and his occasional visits from his children and grandchildren.

Indicate how much you agree or disagree with the following statements about behavior #5:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Story #2:

A few weeks ago you had a conversation with Mr. Smith's daughter and she told you many things about what Mr. Smith was like when he was younger. She explained that Mr. Smith was someone who had always been quite concerned with what others thought of him. Also, he was worried about his appearance and self-conscious about how others might perceive him. For example, he would always dress in a suit and tie and was concerned with saying things "just right" so as to "not look foolish." His daughter explained that he always was, "in 'Professor Smith' mode and rarely relaxed." She also explained that when he was younger, he spent a lot of time traveling to conferences and when he was home, he often was working. She stated that although he was a good father, "he was always in his own world, doing his own thing."

However, his daughter described observing many changes in her father over the past several months and even said, "Dad seems so different, he was never like this when I was younger." She gave an example of how her father was usually sure he knew what was right and wrong, always knew exactly what to do, was very opinionated, and was "always giving me advice I didn't ask for." She says that he now seems less sure of himself and admits that he is not always right. She explained that he seems much more open-minded because her son got an earring and, "dad didn't even seem to care. He even said he thought the earring was 'fun' – he really listens to the kids and doesn't lecture them or tell them what to do."

You have even observed some of these changes as well. For example, Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat instead of his usual suit. He commented to his daughter that, "I don't need to impress anyone anymore." His daughter also mentioned that he now rarely talks about himself, instead choosing to ask her about her day and her family. He also regularly gives money to her children, buys gifts for them, and even calls them and writes to them. His daughter mentioned that, "he's showing more interest in my family than he ever has before." Also, Mr. Smith has recently started giving away some of his most prized possessions to his children and grandchildren. For example, he gave his 14-year-old grandson a chess set given to him by his own father and he gave his 22-year-old granddaughter many of his old textbooks. He also gave his son and daughter some of his teaching awards and a photo album filled with pictures from their youth. He was overheard telling his daughter that, "I have no interest in keeping that stuff anymore. You all probably have more use for those things."

In a conversation with you last week, Mr. Smith said that, "I finally realized the other day that I've been a stubborn, self-centered, boring old fart my whole life. That was fine when I was a professor, but not now. I think I've finally realized how great my kids and grandkids are and even found out that I can be pretty fun when I want to be. I like being a granddad." In fact, he has been observed playing Barbies with one of his granddaughters, the Wii with his grandsons, and has taken up building model cars which was a hobby of his when he was a boy. He told his daughter that he doesn't care if others think his behavior is silly or undignified and that, "at my age I'm going to act how I want to act."

One late afternoon you saw Mr. Smith after not seeing him for a few days, which was very unusual. When you asked him where he had been “hiding”, he explained that his son had visited earlier in the week and talked a lot about his kids and what they had been doing lately. Mr. Smith described that he got to thinking a lot about his deceased wife, the life they had lived together with their two kids, and his work at the university. He said, “I came to the conclusion that I wasn’t the best husband, father, or teacher, but I think I did the best I could. I lived a full and good life - I don’t think I would change a whole lot.”

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: He now seems less sure of himself and admits that he is not always right.

Indicate how much you agree or disagree with the following statements about behavior #1:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Behavior #2: He seems much more open-minded.

Indicate how much you agree or disagree with the following statements about behavior #2:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #3: He doesn't lecture his grandchildren or tell them what to do.

Indicate how much you agree or disagree with the following statements about behavior #3:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Behavior #4: Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat instead of his usual suit. He commented to his daughter that, "I don't need to impress anyone anymore."

Indicate how much you agree or disagree with the following statements about behavior #4:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #5: His daughter also mentioned that he now rarely talks about himself, instead choosing to ask her about her day and her family.

Indicate how much you agree or disagree with the following statements about behavior #5:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #6: He regularly gives money to his grandchildren, buys gifts for them, and even calls them and writes to them. His daughter mentioned that, "he's showing more interest in my family than he ever has before."

Indicate how much you agree or disagree with the following statements about behavior #6:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #7: Mr. Smith has recently started giving away some of his most prized possessions to his children grandchildren. He was overheard telling his daughter that, "I have no interest in keeping that stuff anymore. You all probably have more of a use for those things."

Indicate how much you agree or disagree with the following statements about behavior #7:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #8: Mr. Smith said that, "I finally realized the other day that I've been a stubborn, self-centered, boring old fart my whole life. That was fine when I was a professor, but not now. I think I've finally realized how great my kids and grandkids are and even found out that I can be pretty fun when I want to be. I like being a granddad."

Indicate how much you agree or disagree with the following statements about behavior #8:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Behavior #9: He has been observed playing Barbies with one of his granddaughters, the Wii with his grandsons, and has taken up building model cars which was a hobby of his when he was a boy. He told his daughter that he doesn't care if others think his behavior is silly or undignified and that, "at my age I'm going to act how I want to act."

Indicate how much you agree or disagree with the following statements about behavior #9:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #10: Mr. Smith said, "I came to the conclusion that I wasn't the best husband, father, or teacher, but I think I did the best I could. I lived a full and good life - I don't think I would change a whole lot."

Indicate how much you agree or disagree with the following statements about behavior #10:

This behavior is common in other older adults

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

I have observed behavior similar to this

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree

Story #3:

Because of his role as a professor and parent, Mr. Smith knew many people in town who were either former students, colleagues at the university, or parents of his children's friends. He and his wife also had many friends. Therefore, Mr. Smith was a relatively social person most of his life and knew many people. Now Mr. Smith socializes much less. Although he has many old acquaintances and colleagues in town, he does not visit them nor does he invite them to visit him. He also socializes little in the facility, except for nearly daily conversations with you and coffee in the morning with two other gentlemen who were also former professors. He also sees family 1-2 times a month. Otherwise, a good deal of his day is spent in his room or in the facility library. Staff always let him know when activities are, but he rarely agrees to participate. He has mentioned how he prefers his "alone time" so he can sit, think and reflect on his past. The activity director in the facility asked Mr. Smith why he rarely comes to activities and said that he wants to talk to people he already knows and likes (such as his family or close friends) and isn't interested in making new friends. He remarked, "I don't have the time or energy to make new friends, I'll stick with the people I already know I like."

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: Although he has many old acquaintances and colleagues in town, he does not visit them nor does he invite them to visit him. He also socializes little in the facility.

Indicate how much you agree or disagree with the following statements about behavior #1:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #2: Staff always let him know when activities are, but he rarely agrees to participate. He has mentioned how he prefers his “alone time” so he can sit, think and reflect on his past.

Indicate how much you agree or disagree with the following statements about behavior #2:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Behavior #3: He wants to talk to people he already knows and likes and isn't interested in making new friends. He remarked, "I don't have the time or energy to make new friends, I'll stick with the people I already know I like."

Indicate how much you agree or disagree with the following statements about behavior #3:

This behavior is common in other older adults

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

There is nothing unusual about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

I have observed behavior similar to this

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Someone should be concerned about this behavior

1	2	3	4
Strongly	Somewhat	Somewhat	Strongly
Disagree	Disagree	Agree	Agree

Please answer the following questions about Mr. Smith based on *all three* stories:

1. How satisfied is Mr. Smith with his current situation?

1	2	3	4
Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied

2. How typical/normal is Mr. Smith compared to others his age (he is 85-years-old)?

1	2	3	4
Not Normal/ Typical At all Normal/Typical	Somewhat Abnormal/Atypical	Somewhat Normal/Typical	Very

3. Please rate Mr. Smith's overall mood on the following scale:

1	2	3	4
Very Depressed	Somewhat Depressed	Somewhat Happy	Very Happy

Appendix C

ONLINE/ANONYMOUS SURVEY CONSENT

You are requested to participate in research supervised by Dr. Jeffrey Buchanan on perceptions of behaviors that occur in older adulthood. This survey should take about 15-20 minutes to complete. The goal of this survey is to understand how younger and older adults evaluate different behaviors that elderly individuals may display, and you will be asked to answer questions about that topic. If you have any questions about the research, please contact Dr. Buchanan at Jeffrey.buchanan@mnsu.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato. If you have questions about the treatment of human participants and Minnesota State University, Mankato, contact the IRB Administrator, Dr. Barry Ries, at 507-389-2321 or barry.ries@mnsu.edu.

Responses will be anonymous. However, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

The risks of participating are no more than are experienced in daily life.

There are no direct benefits for participating. Society might benefit from this research in that results may provide information about how developmentally normal behaviors displayed by older adults are perceived different by older versus younger people. This information may lead to more appropriate and sensitive care for older adults.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age.

Please print a copy of this page for your future reference.

MSU IRBNet ID# 517613-1

Date of MSU IRB approval: 09/24/13

Appendix D

CONSENT FORM

You are requested to participate in research being conducted by Principal Investigator, Dr. Jeffrey Buchanan, about college students' and adults' opinions about different behaviors that older adults sometimes engage in.

Purpose

The current project is intended to compare how younger adults perceive the behavior of older adults differently than do older adults.

Procedures

You will first be asked to complete a demographics questionnaire, which gathers information such as age, gender, and ethnicity. The demographics questionnaire will be followed by a set of instructions for completing the second questionnaire. After you have read the instructions, the questionnaire will be presented. You will be asked to read a series of three short stories about an older adult living in an assisted living facility. You will then be asked a series of questions about the older adult's behavior. These questions will ask you to provide your reactions and opinions regarding the older adult's behavior. It is anticipated that participation will take approximately 15-20 minutes.

Risks and Benefits

Risks in terms of emotional stress/discomfort and undesirable social, economic, and financial status are considered to be 'less than minimal.' There are no direct benefits associated with participation in this study; however it is hoped that this research will help determine how younger adults perceive the behavior of older adults differently than do older adults. Research on this topic may eventually produce findings that will help improve the care provided to older adults living in long-term care facilities.

Confidentiality

The records of this study will be kept private. An alphanumeric code will be placed on all data collection forms collected during this study to further protect

participant confidentiality. All information will be locked in a cabinet in University Square 113. All data collected during this study will be destroyed after three years.

Your decision whether or not to participate in this research will not affect your current or future relations with Minnesota State University, Mankato. Even if you sign the consent form, you are free to withdrawal from the study at any time by contacting Dr. Jeffrey Buchanan at 507-389-5824.

Questions

I have been informed that if I have any questions, I am free to ask them. I understand that if I have any additional questions later, I may contact the office of the principal investigator, Jeffrey Buchanan, Ph.D. at (507) 389-5824 or if you have questions or concerns about the treatment of human subjects, please contact IRB Administrator and Associate Vice President of Research and Dean of Graduate Studies, Dr. Barry Ries at (507) 389-2321.

Closing Statement

My signature below indicates that I have decided to participate in a research study and that I have read this form, understand it, and have received a copy of this consent form.

Signature of participant

Date

Signature of Investigator

Date