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Identity processes and concerns about aging in middle and later adulthood.

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IDENTITY PROCESSES AND CONCERNS ABOUT AGING IN MIDDLE AND
LATER ADULTHOOD

A Thesis Presented

by

KELLY M. JONES

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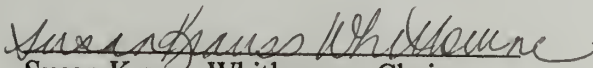
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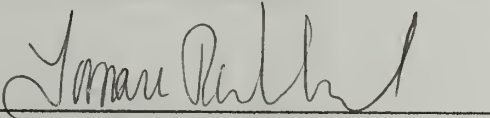
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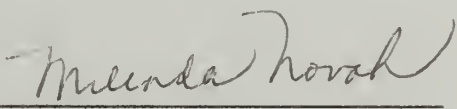
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CHAPTER I

INTRODUCTION

Literature Review

Throughout life individuals are confronted with various changes involved in the aging process. The middle-aged or baby-boomer cohort, the fastest growing segment of the population, (United States Bureau of the Census, 2003) is currently experiencing or shortly will be confronted with many of these age-related changes. These changes involved in social, psychological, and physiological development can lead older adults to question their identities. Some specific age-related changes are more salient than others; for example, many older adults are concerned about possible memory impairment or late-onset depression, as well as the effects of both of these disorders on their sense of self.

According to Erikson (1963), the development of the ego is a function of an individual's ability to navigate through eight stages and resolve each stage-specific psychosocial issue. In particular, Erikson proposed that during the fifth stage of development, individuals deal with the psychosocial crisis of identity achievement vs. identity diffusion. An individual who achieves a coherent identity has a consistent sense of self; by contrast, an individual whose identity remains diffuse lacks a sense of direction and clear purpose in life. Although this issue typically is encountered during adolescence, it maintains importance throughout adulthood and is, in theory, essential for subsequent psychosocial development. It is important to note that Erikson's theory is often misinterpreted as a consecutive series of steps leading from childhood to old age; however, his model actually proposes that there are alternative paths in psychosocial development. Consequently, the issues characterizing each stage may coexist with each

other or may rise to ascendancy earlier or later than would be predicted on the basis of age alone.

James Marcia expanded on Erikson's dichotomous approach to identity development by operationalizing identity as "identity statuses" (Marcia, 1966). The four identity states or statuses are as follows: identity achievement, identity foreclosure, identity moratorium, and identity diffusion. Marcia defined two dimensions, crisis and commitment, that characterize the stage of identity vs. identity diffusion. Crisis refers to the process of considering alternative choices relevant to identity. The commitment dimension refers to the strength of the individual's resolve to pursue a particular choice. Marcia based the identity status model on interviews given to male college students to determine their degree of identity achievement. Marcia assessed whether these individuals considered different choices before fully committing to an occupational, religious, or political ideology.

According to Erikson's theory, to resolve successfully the identity achievement stage, the individual must have thoroughly considered different options before establishing a firm belief or making an ultimate choice. At the other extreme is the identity diffuse individual who may or may not have experienced a crisis but lacks clear commitments. An individual in the moratorium identity status is in crisis yet is distinguished from the diffused identity status because he or she is actively attempting to make a commitment. Marcia describes moratorium as an intermediate stage during which individuals struggle to achieve a compromise between what their parents want and their own wishes, beliefs, and demands. Another stage in Marcia's model is the foreclosed individual whose identity has been established without a crisis. These

individuals have committed to an occupation or ideology but without considering other options. Foreclosed individuals have followed in their parents' footsteps and have not been able to form their own unique sense of identity; thus adolescent experiences confirm childhood beliefs and hinder individual growth.

Because Marcia's theory mainly focuses on individuals' choices during adolescence, a period of development when younger individuals are making choices in response to their parents beliefs, it has not been successfully applied to the concept of identity later in the developmental process. Some researchers building on Marcia's theory of identity statuses attempted to apply it to adulthood (Waterman & Archer, 1990).

Waterman and Archer's adaptation of Marcia's theory did not take into consideration the fact that middle-aged and older individuals' identities have evolved through various periods of exploration and commitments and are not just a result of crises they experienced in adolescence. Waterman and Archer's identity paradigm, which is based on Marcia's theory of identity during adolescence, is not appropriate for middle-aged and older adults for several reasons. Most importantly, the majority of these individuals have already faced major life choices such as choosing careers and/or ideological affiliations. Furthermore, if these individuals are currently contemplating changes in their careers or personal lives these issues may not be perceived with the same urgency as they were in the past, especially since these decisions are being considered against a backdrop of earlier crises, commitments, and experiences. Consequently older individuals when reflecting on past life choices may not regard previous crises (e.g. choosing a major in college) as essential to their current identity; as a result, these models of identity are generally not accepted as accurate interpretations later in life.

CHAPTER 2

IDENTITY IN MIDDLE AND LATER ADULTHOOD

Identity Process Theory

The notion of identity has been better understood in later life by using identity process theory (IPT), a cognitive-affective approach which examines developmental changes associated with the aging process (Whitbourne, 1986b; Whitbourne, Sneed, & Skultety, 2001; Whitbourne, Sneed, & Skultety, 2002). Identity process theory combines the basic principles of Erikson's psychosocial and Piaget's cognitive models of development. According to IPT, identity is conceptualized as a biopsychosocial self-definition that encompasses the individual's self-representations in the areas of physical, cognitive, emotional, and social functioning. The theory proposes that individuals can be best understood according to their relative use of three identity processes: identity assimilation, identity accommodation, and identity balance. Although the use of these identity processes may shift, the individual will have a predominant identity process when responding to new or difficult experiences in adulthood.

Identity Assimilation

Identity assimilation refers to a process in which individuals maintain their identities despite new experiences that may potentially challenge their views of the self, such as age-related changes in physical and cognitive functioning. When using identity assimilation, people seek out information that is consistent with their current self-schemas because to recognize contradictory or undesirable characteristics of the self can be troubling and anxiety provoking (Whitbourne, 2001). Although the use of assimilation has the benefit of allowing aging individuals to feel healthy, remain optimistic, and

confident; the excessive use of this identity process when not appropriate can lead to social isolation as a result of these individuals ignoring negative yet realistic reactions from others. These individuals may also experience psychological overexertion from constantly defending their identities against information that is inconsistent with their preexisting self-concepts. Individuals who place excessive reliance on identity assimilation may harm themselves physically by continuing to participate in activities that are now too strenuous.

Identity Accommodation

Individuals using identity accommodation adapt to new experiences and feedback from others by changing their thoughts about the self and, accordingly, their behaviors. Identity process theory proposes that individuals who excessively use identity accommodation overreact and over-generalize from normal age-related changes. These individuals may conclude that they are “over the hill” at the first gray hair or the mere forgetting of an acquaintance’s name. The use of identity accommodation to the exclusion of identity assimilation may lead people to feel hopeless, eventually discouraging them from taking preventive and compensatory measures.

IPT proposes that people who use identity accommodation to the extreme while confronting age changes may avoid situations and tasks in which they are quite capable of participating. Consequently, they may become anxious, insecure, and unpredictable. Lacking a consistent sense of self, they may second guess themselves or be easily influenced by others, thus leading them to be impulsive when confronted with new or difficult situations. For example an individual overusing accommodation may attempt to control age-related changes such as excess weight gain erratically with different

superficial diets rather than consistently addressing the issue with exercise or good eating habits. These individuals often lack confidence and an internal self-definition, which can lead them to develop low self-esteem, self-doubt, and a need for approval from others. Because the excessive use of accommodation is also associated with being easily influenced by negative evaluations from others, the identities of these individuals lack internal consistency. In fact, they may agree with negative evaluations from others more readily because these evaluations are consistent with their own inner confusion and fears about their level of competence (Whitbourne, 2002)

Identity Balance

Based on the negative consequences associated with the overuse of either identity assimilation or accommodation it is not surprising that identity balance, or the dynamic balance between the two processes, is theorized to be the optimal approach to aging. Individuals who use this process are in the best position to age successfully because they can adapt to and integrate age-related changes into their sense of self without becoming unduly influenced in a negative direction. People who use identity balance are concerned primarily with acquiring accurate self-knowledge, and so they are better able to approach age-related changes realistically. For example, individuals using identity balance who in the past were extremely active in sports such as soccer, football, or wrestling may seek sports with less physical contact such as swimming or golf. This type of adaptation to the aging process allows people to maintain their identities as athletes without ignoring the real physical limitations they have experienced, such as the normal decrease in muscle strength associated with the aging process.

The realistic approach associated with the use of identity balance can be extremely beneficial for the aging individual when approaching manageable situations, such as wearing contact lenses to compensate for loss of vision; however, many age-related changes are out of people's control. As a result, individuals who feel that self-control and efficacy are of great importance may become negatively affected or anxious when confronted by uncontrollable events (Diehl, 1999; Shapiro, Schwartz, & Astin, 1996.). It has been theorized that when balanced individuals cannot psychologically or physically adjust to biological, social, and psychological age-related changes on their own that they are most likely to seek out the appropriate medical or psychological interventions. For example, balanced individuals would be more likely to interpret having a heart attack as a reason to change their unhealthy habits than would be the case for individuals who predominately use identity assimilation (Whitbourne et al., 2002)

Preliminary IPT Research

Two questionnaire measures of identity assimilation, accommodation, and balance have been developed to test empirically identity process theory. These instruments have been tested in relation to self-esteem, physical changes, and defense mechanisms. The Identity and Experience Scale- General (IES) is a 33-item scale assessing the relative use of each of the three identity processes. The Identity Experience Scale- Specific Aging (IES-SA) is a 21-item scale in which the three processes are applied to the physical changes that are most salient to the individual. Both questionnaires were initially derived from responses to the Adult Identity Interview (Whitbourne, 1986a).

The first investigation using the IES-SA explored the relation between identity processes and specific age-related changes in physical and cognitive functioning (Whitbourne & Collins, 1998). The sample consisted of 242 community dwelling adults (81 male and 161 female participants) who ranged in age from 40 to 95 years old. For their first task, participants were asked to select the area of functioning that was most important to them from the Physical and Cognitive Change Scale (PCCS), a list of physical and cognitive changes derived from the literature on normative age changes in late adulthood (Whitbourne, 2002). These physical and cognitive changes were classified into four categories: appearance (e.g. gray hair, body fat, and wrinkles), competence (e.g. mobility, muscle strength, physical activities in general, joint pain, house-work, and driving), basic functions (e.g. shortness of breath, bladder control, dentures, eating discomfort, constipation, and sexuality), and cognition and perception (e.g. hearing, vision, memory for names, memory for past events, and balance). Participants were then asked to respond to items on the three identity process scales specifically about their chosen area of change. For example, respondents who chose shortness of breath as their most important age-related change were then asked to what extent they used identity assimilation (i.e. minimizing the importance of the change), identity accommodation (i.e. felt overwhelmed by the change), and identity balance (i.e. regarding the change as involved in their psychological growth). Scores on the three scales were then correlated with the Rosenberg Self-Esteem Questionnaire (Rosenberg, 1965). IES-SA scores were also broken down by categories for the two age groups. Middle age individuals (40-65) had the highest scores on identity assimilation and the lowest scores on identity accommodation across all four categories of physical and cognitive change. People in this

age group used identity balance slightly less frequently than they used identity assimilation. Individuals 65 and older had low scores on identity accommodation across all categories; however, their comparative use of balance and assimilation varied based on the category of physical and cognitive functioning. For example, older individuals had higher scores on balance than they did on assimilation with regard to changes in basic functioning and appearance, and had lower scores in the areas of competence and cognition.

Whitbourne and Collins (1998) also found significant age differences in the nature of the changes reported such that the middle-aged individuals were more likely to report experiencing salient changes in their appearance than were those in the older age group. Older individuals in turn were more concerned about changes in their basic functions and competence than were those in the middle-aged group. However, both groups showed approximately the same amount of concern about changes in their cognitive functioning (Whitbourne & Collins, 1998) which is interesting because middle-aged individuals, according to studies of actual cognitive development, rarely experience drastic reductions in their cognitive abilities.

Identity process theory proposes that identity balance is positively related to self-esteem; however, with three of the four areas of functioning assessed (appearance, competence, basic functions, and cognition); it was identity assimilation that was positively related to self-esteem. On the basis of these results, Whitbourne and Collins concluded that identity assimilation serves to maintain self-esteem in later adulthood. The idea that maintenance of self-esteem in later adulthood with regard to physical changes relies upon identity assimilation has been referred to as the “identity assimilation effect”

(Sneed & Whitbourne, 2001). It seems that a certain amount of denial or minimization of age-related changes, especially changes associated with the body, is helpful in retaining a coherent and healthy sense of self in later life.

Sneed and Whitbourne (2001) examined the relationship between identity and self-esteem, specifically testing the identity assimilation effect hypothesis, while also extending the findings from the domains of physical and cognitive functioning to personality (Sneed & Whitbourne, 2001). They proposed that not only would balance be positively related to higher levels of self-esteem but that assimilation would be as well. They also hypothesized that identity accommodation would be negatively related to self-esteem. The sample of 161 female and 81 male participants ranging in age from 40 to 95 was again divided into middle-aged individuals (under 65) and older individuals (65 and older). Preliminary correlations showed the expected positive relationships among self-esteem, assimilation, and balance across all categories of physical and cognitive functioning. Also, as predicted, there was a negative correlation between self-esteem and identity accommodation.

To assess the distinctive contributions of age and identity processing styles in predicting self-esteem, a simultaneous multiple regression analysis was performed. The relationship between self-esteem and the processes of identity balance and accommodation was maintained when controlling for the other identity processes and age; however, the association between self-esteem and assimilation decreased in the multiple regression analysis signifying that assimilation and balance's shared variance inflated the simple correlation between self-esteem and assimilation in the preliminary analyses. The findings did not support the identity assimilation effect, suggesting that

although increased use of assimilation with age may predict increased self-esteem in areas of physical and cognitive functioning, the effect may not apply to increased self-esteem as a general personality style. Sneed and Whitbourne concluded that “perhaps the optimal strategy for processing age-related changes in the areas of physical and cognitive functioning is identity assimilation, whereas the optimal strategy for processing identity discrepant information about the self’s unity and integrity in the domain of personality is identity balance” (Sneed & Whitbourne, 2001, p. 318). One problem with these preliminary results is that individuals’ health status was not considered when assessing the physical and cognitive functioning of the sample.

Gender Differences in IPT

Analyses have also revealed different patterns for men and women in the use of identity assimilation, accommodation, and balance (Skultety & Whitbourne, 2004). It has become quite clear that women are more likely to use identity accommodation than men. The positive relationship between self-esteem and identity assimilation is more common for older women than men, which suggests that identity assimilation may be providing women with more of a sense of stability later in life, perhaps as a reaction to identity instability in their younger years when they were more likely to use identity accommodation. In contrast, it has been proposed that men are more likely to avoid engaging in identity accommodation earlier in life and thus do not need to compensate for the inconsistency and self-doubt associated with assimilation that often disrupts a stable identity. Interestingly, it appears that in middle and later adulthood men benefit primarily from identity balance whereas both identity balance and assimilation are advantageous for women.

Assimilation and Defense Mechanisms

One possibility that has arisen from previous studies is the proposal that identity assimilation is related to defensive processes within personality. For instance, people with high scores on assimilation tend to avoid looking inward and recognizing negative features of their identities. Their high scores on assimilation may be related to their propensity to deny truly anxiety provoking aspects of the self. Consequently, scores on the identity assimilation scale may not purely reflect identity processes but instead may reflect conscious or unconscious attempts at self-enhancement. Related to this idea is the notion that high scores on the self-esteem questionnaire may reflect the defensive tendency for individuals to avoid accepting their inadequacies, weaknesses, and failures.

To investigate the possibility of defensiveness affecting the identity process scores, Whitbourne and colleagues administered a measure of defensiveness on a subset of respondents (92 women and 55 men), from the previously mentioned study (Whitbourne et al., 2002). Participants were administered the IES-G, SEQ, and the Defense Mechanism Inventory (Gleser & Ihilevich, 1969). The DMI is a 200-item inventory consisting of 10 hypothetical interpersonal dilemmas which are intended to evoke defensive responses from participants. Each vignette is followed by four questions, and each question is followed by five possible responses. This forced-choice format is designed to tap the five different types of defense mechanisms: turning against the self (i.e., self-handicapping, pessimism, and masochism), projection (i.e., attributing to others undesirable aspects of the self), principalization (i.e., intellectualization, rationalization, and isolation or affect), turning against the object (i.e., identification with

the aggressor and displacement), and reversal (i.e., negation, denial, reaction formation, and repression).

For the most part, the findings were consistent with identity process theory; for example, identity accommodation was associated with self-handicapping or self-blame and a lack of ability to deny or to rationalize experiences of a negative nature. However, there was one incongruous finding for women-- identity balance was positively related to the reversal scale of the DMI. The reversal scale reflects the use of denial, or the distorting or minimization of reality. Whitbourne and colleagues proposed that these women may have wanted for socially desirable reasons to appear balanced, flexible, and open to negative feedback when in reality they are uncomfortable with looking inward and identifying their possible flaws. To investigate this possibility, the sample of women was split into four groups based on their low and high scores on balance and reversal. When these four groups were compared on identity assimilation scores, it was found that women high on balance and reversal did in fact score higher on assimilation than did the other three groups. Reflecting this pattern of scores, the women were labeled "defensive assimilators." These women were distinguished from "true balanced" (i.e. women with high balance, low reversal, low assimilation, and low accommodation scores). Women with high assimilation and reversal scores but low accommodation and balance scores were classified as "true assimilators." Finally women with high accommodation scores and low scores on all other scales were defined as "true accommodators" (Whitbourne, Sneed, & Skultety, 2001). The defensive assimilators also received low scores on projection, a scale that assess an individual's readiness to blame others for one's own shortcomings.

It seems that defensive assimilators are afraid to turn their anger toward others; perhaps the original finding that identity assimilation and self-esteem were positively related (Whitbourne & Collins, 1998) along with the so-called double standard of aging, (Sontag, 1979) can help explain this phenomenon. The double standard of aging may still lead certain women to push aside their thoughts, beliefs, and feelings about losing their youth and beauty. Women may defend their self-concept through the use of various defense mechanisms, specifically denial. Furthermore, these women may find it difficult to voice their frustration in other areas of their life, most notably their interpersonal relationships. Perhaps this pattern may dissipate in future cohorts; however, current cohorts of middle-aged and older women facing age-related changes may be concealing negative aspects of themselves to protect themselves from the negative implications of aging in contemporary society. On one hand one would hope that with less ageism in the future these individuals will be less likely to conceal the negative aspects of themselves that are associated with aging; yet, on the other hand with the recent resurgence of youth-oriented culture, these patterns may not change at all and might even get worse

CHAPTER 3

MEMORY CONTROLLABILITY

Memory is a highly salient age-related change for individuals in middle and later adulthood. An extensive amount of research has been conducted on cognitive impairment in these populations, much of it specifically focused on Alzheimer's disease. For the most part, these findings have been helpful in educating society about important biological, psychological, social, and economic implications of the disease; however, the increased scientific and media attention given to Alzheimer's disease may lead some older adults to perceive normal cognitive changes as early signs of the disease. Hypervigilance to these normal changes in memory could have detrimental psychological effects, especially since research shows that perceived self-efficacy can negatively affect cognitive functioning (Bandura, 1989; Lachman, Steinberg, & Trotter, 1987)

Self-Efficacy & Memory Controllability

Bandura proposes that self-efficacy beliefs enable individuals to exercise a measure of control over their thoughts, feelings, and actions (Bandura, 1986). He maintains that levels of motivation, affective states, and actions are influenced more by what people believe than what is objectively true. By knowing an individual's level of self-efficacy, it is possible to predict how much effort people will expend on an activity, how long they will persevere when confronted with obstacles, and how resilient they will be in the face of adverse situations. According to Bandura, the element of self-efficacy or control in a situation appears to be an important organizing principle when coping with stressful situations. An individual faced with a stressful situation who has a high sense of

self-efficacy or mastery may be able to manage and lessen the negative affects associated with these situations.

Bandura and Cervone (1983) found that people with low self-efficacy when confronted by failures or setbacks were more likely to give up or reduce their effort, whereas those individuals with high self-efficacy increased their efforts until they succeeded. In summary, individuals high on self-efficacy recover quickly after disappointments and attribute failure to insufficient effort or deficient skills or knowledge that are acquirable. Bandura's research on self-efficacy has sparked great interest across diverse subareas in psychology because self-beliefs may create positive or negative self-fulfilling prophecies in performance across a variety of domains. Bandura stressed that self-efficacy had to be measured in reference to a specific area of functioning, due to the fact that self-efficacy is not a global personality trait. Bandura explained throughout his writings that self-efficacy is a provisional and easily influenced characteristic, and that it is strictly situational and task related.

Previous research has extended the general principles of self-efficacy into the area of memory functioning (Berry, West, & Dennehey, 1989a, 1989b; Lachman, Steinberg, & Trotter, 1987.). A person who attributes failures in memory to an uncontrollable cause such as genetics may not expect to improve when compared to an individual who attributes failure to controllable cause (e.g. his or her lack of effort). This common belief, often held by older adults, that their memories are ineffective may be related to the degree of control individuals feel they have over memory (Lachman, Bandura, Weaver, & Elliott, 1995). There are different theories of memory aging that may affect the belief in the amount of control individuals feel they have over their memories. One popular

interpretation of aging on memory is that organic deterioration in the brain creates losses and that these deficits are inevitable and uncontrollable (Lachman et al., 1995). According to this school of thought the brain is conceptualized as a “shrinking entity” that will only deteriorate and therefore there is nothing one can do to stop this debilitating process.

On the other hand, memory self-efficacy can be increased when memory is considered “a body of skills that can be developed and maintained with effort.” Individuals with high self-efficacy in cognitive functioning are more likely to improve their memory by strengthening their cognitive skills through various techniques (Lachman et al., 1995). This attitude towards memory can be held in conjunction with the idea that organic deterioration occurs in old age; however, this “use it or lose it” attitude helps individuals regain some control by practicing memory skills and increasing effort. In this way memory has been viewed as a mental muscle which like physical muscles can be maintained and improved through exercise, even though structural changes associated with aging still occur.

Naturally these different interpretations of memory changes in later life could influence memory self-efficacy and memory controllability; the perceived ability to control one’s memory. Stemming from this definition is the idea that individuals with low perceived ability but high memory controllability will attempt to maintain their cognitive abilities by exercising these skills as they age. The Memory Controllability Inventory (Lachman et al., 1995) was developed to study the different conceptualizations of memory that people hold and the relationship of these conceptualizations to actual memory performance. Exploratory research has been conducted with this instrument to

help understand the underlying processes and possible interventions associated with maladaptive memory beliefs. The increased belief in memory controllability has been shown to improve actual memory performance(Lachman et al., 1987); therefore, suggesting that scores on the MCI may be a useful diagnostic tool to help explain decreases in memory performance among older adults.

Purpose and Hypotheses of Present Study

The proposed study will extend findings from the fields of personality and cognitive psychology by examining the influence of identity processes, various demographics such as gender, and social economic status, as well as major life factors such as individuals' health, on perceived memory controllability in middle-aged and older adults. This study will contribute to prior research by examining a previously uninvestigated relationship between identity and perceived memory controllability. The present study could be helpful in identifying which individuals, based on their predominant identity process, will be at risk for a lower sense of control over their memory.

Exploring the relationship between identity and memory controllability may be the first step in understanding the underlying processes that influence middle-aged and older adults' beliefs about their memory, specifically the belief as memory as an uncontrollable entity. Therefore three major hypotheses will be addressed in the present study in hopes of learning more about this important relationship between identity and memory controllability, which may indirectly affect actual memory performance.

Question #1: Firstly, are identity assimilation, identity accommodation, and identity balance related to memory controllability? I predict that individuals using identity balance will be more likely to feel they have control over their memories. Similarly, I would expect individuals with high assimilation scores to believe that they have control over their memories. On the other hand, I would propose that individuals using identity accommodation will be less likely to feel that they have control over their memories due to the fact that these individuals are easily influenced by changes in the environment and in general tend to overanalyze change.

Question #2: Secondly, does health status moderate the relationship between identity assimilation and memory controllability? Upon investigating the direct relationship between identity and memory controllability I will be examining the effect of a major life factor, health, on this relationship. Specifically I am interested in individuals using assimilation because, in theory, these are the individuals who are able to disregard or ignore age-related changes. I suspect that for these individuals who have a chronic illness or medical condition, which may not be easily ignored, the nature of the relationship between assimilation and memory controllability would change.

Question #3: Thirdly, are these relationships different for middle-aged and older adults? To investigate these hypotheses older adults will be classified as 65 and older whereas middle-aged individuals will range in age from 40 to 64; separate analyses will be conducted for each group. I hypothesize that the relationships between the identity processes and memory controllability will be stronger for middle-aged individuals. This prediction is based on the fact that previous research has shown that middle-aged individuals are actually as concerned as or more concerned about cognitive changes than

are older adults (Whitbourne & Collins, 1998). Also of primary interest for the current study were comparing the frequencies of identity processes used by both middle-aged and older adults.

CHAPTER 4

METHOD

Data from the present study was drawn from an earlier project investigating mental health service utilization by older adults (Skultety, 2003). This study examined the demographics of the sample, external and internal utilization barriers, and psychological barriers including treatment fearfulness, self-concealment, aging concerns, and memory controllability on the likelihood of mental health service utilization.

Sample

A sample of community adults (214 females and 129 males) were recruited by college students in an advanced psychology course in exchange for extra credit. The sample ranged in age from 40 to 91 years old ($M=58.01$, $SD=12.27$). The sample contained fewer men (37.6%) than women (62.4%). The majority of the sample was married (67.3%), Caucasian (95%), and owned a home (82.1%). In addition the majority of the sample was well-educated; with a little more than half of the sample completing some college education (58.4%). For the present study, this sample was divided into two cohorts; a middle-aged cohort (ranging in age from 40 to 64; $N=211$) and an older cohort of individuals 65 and older ($N=84$).

Procedure

Students in the advanced psychology course were asked to help recruit participants in a study for extra credit. They were instructed to obtain adult volunteers (aged 40 and older) to complete questionnaires for a research study. Students were also instructed that they could not recruit more than one family member, but were allowed to recruit up to six non-related participants for additional credit. After being told the

rationale and requirements for the study, students filled out a form indicating who they would tentatively recruit for the study. This information included the gender and relationship (i.e. relative or non-relative) to the volunteer. Following the collection of these forms the students were randomly assigned to recruit their volunteers.

Students were then told they would receive 5 points for the assigned relative and 2 points for each additional non-relative. Finally, students provided the names, gender, and ages of the participants they recruited; this information was kept separate from any data that were collected during the study. These steps were taken to insure that the students had actually recruited older volunteers and that identifying information would be kept confidential.

The first round of questionnaires was distributed as packets during class to students in the spring of 2002. Students were asked to return their initial questionnaires before obtaining additional packets, which were made available outside the professor's office. Each packet included a consent form, nine questionnaires, and a de-briefing form for the participants. In addition there were instructions for the student, including a list indicating who the student has been assigned to recruit as well as envelopes for the participants to seal and return as a means of maintaining confidentiality. The forms and questionnaires were collected during class as well as outside the professor's office and students received their extra credit.

Measures

The questionnaire packet from the original study consisted of nine sections (Skultety, 2003), three of which are of interest in the present study (See Appendix for copies of these scales; page 51). All sections were printed in 20 point Times New Roman

font to ensure that participants would be able to read all questionnaires. A demographic questionnaire assessed their age, sex, race, occupation, and years of education, religion, and marital status among other descriptive characteristics.

The demographic questionnaire also included instructions for the participants to list their health statuses, i.e. if they had any current mental or physical ailments. Because of the open ended nature of the question, participants' responses varied widely. In an attempt to make the different physical health descriptions more standardized individuals' health statuses were classified as follows: Individuals who described their health as "excellent, good, very good, fine, fair, okay" or had no medical condition listed were classified as not having a negative health condition. Individuals, who listed minor or moderate conditions such as arthritis, high blood pressure, high cholesterol, etc., were classified as having a minor or moderate health condition. And finally individuals who listed a heart condition, cancer, diabetes or their health as "poor" were classified as having a serious health problem.

Participants were also asked to complete the Memory Controllability Inventory and the Aging Concerns Scale (MCI and ACS; Lachman et al., 1995). The present study will focus only on the MCI, which measures how well individuals think they can control their memory. The MCI consists of four subscales that measure different aspects of memory including participants' beliefs about their present ability to remember information (Present Ability Subscale); their level of confidence that strategies can be used to improve memory (Potential Improvement Subscale); their beliefs that memory can be controlled with effort (Effort Utility Subscale); and finally their beliefs about whether or not memory will inevitably decline with age (The Inevitable Decrement

Subscale). The following items are examples of the four subscales: “I can remember the things I need to” (Present Ability); “If I use my memory often I won’t lose it” (Potential for Improvement); “I can find ways to improve my memory” (Effort Utility); and “No matter how much I use my memory, it is bound to get worse as I get older” (Inevitable Decrement).

The MCI is a 13 item, seven point likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The MCI’s coefficient alphas ranged from .58 to .77 for the four subscales (Lachman et al., 1995). Cronbach’s alphas for both the present study and the original study it was derived from were as follows: .67 for the Present Ability Subscale, .59 for the Potential for Improvement Subscale, .74 for the Effort Utility Subscale, and .56 for the Inevitable Decrement Subscale. Previous studies have demonstrated consistent test-retest reliability for the four subscales over a 9 day period (ranging from .50-.65) as well as over a three month period (ranging from .46-.57). Lachman and colleagues established validity for the MCI by finding the following predicted correlations between the subscales: a positive correlation among the Present Ability, Potential Improvement, and Effort Utility subscales and a negative correlation between the Inevitable Decrement and Present Ability subscales (Lachman et al., 1995).

The Identity Experience Scale-General (IES; Whitbourne, Sneed & Skultety, 2002), yields three separate subscales, one for each identity process. The IES is a 33 item likert-scale that has 11 items for each identity scale. The following items are examples from the three different subscales of the IES: “Don’t spend much effort reflecting on “who” I am” (Assimilation; IAS); “Have many doubts and questions about myself” (Accommodation: IAC); and “Am challenged but not overwhelmed by change” (Balance;

IBL). Participants responding to the IES indicated how much an item was (1) “Not like [them]” to (7) “Completely like [them]”. The Cronbach alphas for the IES (.74) and its three subscales IAS (.69), IAC (.87), and IBL (.82) show strong reliability for the measure.

CHAPTER 5

RESULTS

Pearson Product-Moment Correlations

The present study's correlations among the three identity processes of assimilation, accommodation, and balance were similar to correlations found in earlier studies using the IES. All correlations between the identity processes did not exceed .3 showing support for the identity processes being related yet distinct concepts. Please see Tables 1 and 2 for the exact Pearson product-moment correlations among the Identity Processes, Health, & Memory Controllability for middle-aged and older adults, respectively. These correlation coefficients support IPT in that the three identity processes seem to be distinct yet somewhat related constructs.

Means and Standard Deviations of Identity Processes

Means across age groups showed that older adults ($M=44.55$, $SD=9.78$) tended to use assimilation more than middle-aged people ($M=41.30$, $SD=8.75$) whereas middle-aged individuals ($M=32.23$, $SD=12.24$) used slightly more accommodation than older individuals ($M=29.47$, $SD=12.58$). Interestingly both older ($M=54.90$, $SD=10.29$) and middle-aged ($M=54.81$, $SD=9.70$) individuals used approximately the same amount of balance. In addition older ($M=63.35$, $SD=9.11$) and middle-aged ($M=62.58$, $SD=8.75$) individuals had similar means on memory controllability. The means for the two age groups can be found in Table 3.

Hierarchical Regression Analyses

To assess the distinctive contributions of gender, social economic status, health status, and identity processes in predicting memory controllability, a hierarchical

regression analysis was performed for each age group. Middle-aged and older adults' regression analyses can be found in Tables 4 and 5, respectively. Hypothesis #1 was partially confirmed in that balance and accommodation were significantly related to memory controllability in at least one age group. In particular, a positive relationship between the identity process of balance and memory controllability was observed for both middle-aged ($b=2.46$, $SE=.580$, $p<.01$) and older individuals ($b=2.42$, $SE=1.04$, $p=.02$). On the other hand, the prediction that identity assimilation and memory controllability would be positively related was not supported in either the middle-aged ($b=.29$, $SE=.713$, $p=.684$) or older sample ($b=-.10$, $SE=1.32$, $p=.94$).

Older individuals' accommodation scores were not significantly related to memory controllability; ($b=-.72$, $SE=1.07$, $p=.50$) however, middle-aged individuals using identity accommodation were less likely to feel that they had control over their memories ($b=-1.21$, $SE=.57$, $p=.035$). This finding supports the general hypothesis that identity accommodation is negatively related to memory controllability but perhaps more interestingly this finding differentiates the process of accommodation and memory controllability for the two age groups thus partially supporting Hypothesis #3. Specifically middle-aged accommodators seem to be more concerned about cognitive changes than older individuals using identity accommodation. It is important to keep in mind that middle-aged individuals tended to use more accommodation than older adults in the overall sample.

Hypothesis #2, which predicted that health status would moderate the relationship between identity assimilation and memory controllability was not confirmed in either the middle-aged ($b=-2.54$, $SE=2.03$, $p=.21$) or older sample ($b=-.39$, $SE=2.27$, $p=.86$). Even

though an interaction was not established; interestingly, middle-aged individuals' health status was negatively related to memory controllability ($b=-3.97$, $SE=1.89$, $p=.03$). That is middle-aged individuals with poorer health felt that they had less control over their memories whereas older individuals' health status did not significantly affect their memory controllability ($b=-1.57$, $SE=2.55$, $p=.55$) This also suggests that health statuses of middle-aged adults may be more influential on their memory controllability than the health of older individuals on their beliefs about controlling their memories; especially since older individuals reported proportionately more health problems (49.5%) than middle-aged individuals (30.0%).

To investigate Hypothesis #3 older adults were classified as 65 and older whereas middle-aged individuals ranged in age from 40 to 64; as previously mentioned separate analyses were conducted for each group. Some support was established for stronger or at least different relationships in middle-aged individuals in that both health and accommodation (in addition to the common finding of balance in both age groups) were related to memory controllability in the midlife sample but not in the older sample.

Table 1. Pearson Product Moment Correlation Matrix for IES, Health, & MCI in Middle-Aged Adults

Measures	1	2	3	4	5
1. IAS	--				
2. IAC	.079	--			
3. IBL	.100	-.13*	--		
4. HEALTH	.009	.12	-.04	--	
5. MCI	-.003	-.15*	.42**	-.09	--

Notes. IAS = Assimilation; IAC = Accommodation; IBL = Balance; IES= Identity

Processes; MCI= Memory Controllability

* $p < .05$, ** $p < .01$

Table 2. Pearson Product Moment Correlation Matrix for IES, Health, & MCI in Older Adults

Measures	1	2	3	4	5
1. IAS	--				
2. IAC	-.033	--			
3. IBL	.280**	-.298**	--		
4. HEALTH	.218*	-.020	-.012	--	
5. MCI	.011	-.170	.266**	-.038	--

Notes. IAS = Assimilation; IAC = Accommodation; IBL = Balance; IES= Identity

Processes; MCI= Memory Controllability

* $p < .05$, ** $p < .01$

Table 3. Means and Standard Deviations for IES & MCI by Age Group

IES & MCI	<u>Middle-Aged</u>		<u>Older</u>	
	Mean	SD	Mean	SD
IAS	41.30**	8.75	44.55	9.78
IAC	32.23*	12.24	29.47	12.58
IBL	54.81	9.70	54.80	10.29
MCI	62.58	8.75	63.35	9.11

Notes. IAS = Assimilation; IAC = Accommodation; IBL = Balance; IES= Identity

Processes; MCI= Memory Controllability

Middle-aged N= 232; Older adult N=97

*Mean differences between age groups were marginally significant at the .06 level

**Mean differences between age groups were significant at the .01 level

Table 4. Hierarchical Regression Analyses for Middle-Aged Adults (N=211)

Independent Variables	N	B	SE	β
Step 1				
Gender	211	1.56	1.13	.09
SES	211	.01	.03	.02
Step 2				
IAS	211	.29	.71	.03
IAC	211	-1.20	.57	-.14*
IBL	211	2.45	.58	.28**
Health Status	211	-3.97	1.89	-.14*
Step 3				
IAS x Health Status	211	-2.54	2.03	-.09

Notes. IAS = Assimilation; IAC = Accommodation; IBL = Balance;

MCI= Memory Controllability

MCI is the dependent variable of interest.

$R^2 = .00$ for Step 1; $\Delta R^2 = .13$ for Step 2; $\Delta R^2 = .00$ for Step 3 ($ps < .05$)

B = Unstandardized regression weights; SE = standard error of B

* $p < .05$, ** $p < .01$

Table 5. Hierarchical Regression Analyses for Older Adults (N=84)

Independent Variables	N	B	SE	β
Step 1				
Gender	84	-1.07	1.98	-.06
SES	84	-.07	.05	-.17
Step 2				
IAS	84	-.09	1.31	-.01
IAC	84	-.72	1.06	-.08
IBL	84	2.42	1.03	.27*
Health Status	84	-1.51	2.55	-.07
Step 3				
IAS x Health Status	84	-.38	2.26	-.02

Notes. IAS = Assimilation; IAC = Accommodation; IBL = Balance;

MCI= Memory Controllability

MCI is the dependent variable of interest.

$R^2 = .03$ for Step 1; $\Delta R^2 = .10$ for Step 2; $\Delta R^2 = .00$ for Step 3 ($ps < .05$)

B = Unstandardized regression weights; SE = standard error of B

* $p < .05$, ** $p < .01$

CHAPTER 6

DISCUSSION

The literature on memory and aging is increasingly incorporating personality variables as a way of understanding cognition in the broader context of the self. The goal of the present study was to examine the relationship between identity processes and memory controllability in hopes of implementing interventions for individuals whose identity styles may lead them to be more at risk for decreased memory controllability and perhaps related decline in memory performance. This is especially important because generally individuals with low perceived memory controllability are less likely to engage in certain behaviors that improve cognitive functioning (e.g. using memory strategies), expend effort on memory tasks, or persist when confronted with initial failures or setbacks during recall. In other words, individuals with a low sense of memory controllability will be less motivated when tackling cognitive tasks. Consequently it is important to identify contributing factors (e.g. distinct identity processes) that may affect the development of memory controllability in hopes of educating middle-aged and older adults about these effects on their memory.

The findings from the present study show a significant relationship between balance and memory controllability for both middle-aged and older adults such that increases in balance were related to higher levels of memory controllability. Balance was found to be a better predictor of memory controllability than the other identity processes of identity assimilation and accommodation for both age groups. This result further supports balance as the most adaptive and favorable identity process for successful aging; (Skultety & Whitbourne, 2004; Sneed & Whitbourne, 2001, 2003; Whitbourne & Collins,

1998; Whitbourne et al., 2002) therefore, adults should be informed and encouraged to use balance as a predominant identity style. This could promote successful aging by allowing individuals to maintain a realistic and positive sense of self despite inevitable age changes. The use of identity balance is extremely important in the conceptualization of cognitive functioning which is a considerably threatening but at least a partially controllable domain in later life. Individuals' increased use of balance over assimilation and accommodation may help individuals' recognize their ability to influence their memories thus encouraging these individuals to approach cognitive functioning with a sense of control while increasing effortful and productive cognitive skills.

Hypothesis #1 also predicted that high assimilation scores would be related to individuals' increased beliefs of memory controllability. This hypothesis was based on evidence of the "identity assimilation effect" in previous studies including work on identity and its relation to physical changes (Whitbourne & Collins, 1998) however, this hypothesis was not supported and seemed more consistent with more recent findings (Sneed & Whitbourne, 2001). It seems that assimilation is less of a protective factor for processing identity discrepant information regarding personality which is perhaps more ambiguous than more objective areas such as actual physical and cognitive functioning. One significant contribution of the present study is that the "identity assimilation effect" was examined while assessing individuals' health statuses in the samples. Interestingly identity assimilation was not significantly related to memory controllability in either sample and was even found to be in different directions for the two age groups. Regression analyses showed assimilation to be positively related to memory controllability for middle-aged individuals but inversely related for older adults. The fact

that no differences were found in the present study may be due to the self-report nature of the IES especially since it is in the nature of assimilation that individuals using this process deny negative information about themselves; thus, they may have presented themselves as more balanced than they truly are. This could be especially true for older adults since there was significant correlation between balance and assimilation exclusively in the older sample.

Middle-aged individuals using identity accommodation were found to be less likely to feel control over their memories; in contrast, older adults' use of accommodation was not significantly related to memory controllability. However, both relationships were in similar directions. These findings tend to support Hypothesis #1, that identity accommodation is negatively related to memory controllability, but perhaps more interestingly this finding shows support for Hypothesis #3 of the present study in that it differentiates the relationship between accommodation and memory controllability for the two age groups.

Consistent with prediction, middle-aged individuals using accommodation were more concerned about cognitive changes than older individuals using identity accommodation; however, it is important to realize that middle-aged individuals in general seem to use more accommodation than older adults. Nevertheless, this finding and an additional finding showing health to be significantly related to memory controllability exclusively in middle-aged sample, shows further support for different relationships in memory controllability by age group. These findings indicate how important it is to educate middle-aged adults about the negative effects of identity accommodation and poor health on memory controllability. This psychoeducation could

help middle-aged individuals circumvent the use of maladaptive identity processes (i.e. accommodation) in midlife, a time marked by important psychological, physical, and cognitive transitions. Health status also seems to have an impact on memory controllability that is different for middle-aged individuals than older adults. This could be an opportunity for interventions for middle-aged individuals who have poor health and thus may be more at risk for decreases in control over their memory. These findings indirectly support the idea that a person's physical condition or lack of perceived control regarding a physical limitation could affect his or her sense of control in the area of cognition during midlife.

Hypothesis #2 directly tested the notion that a decrease in physical functioning could influence perceptions of decreased cognitive functioning. It was predicted that individuals using identity assimilation would not be able to use their common style of denial when confronted with a major medical condition and that their acute loss of control in physical functioning may end up affecting other areas of their lives including cognitive functioning. This interaction effect was not found in either sample; however, several limitations, including the classification of individuals' health statuses, could have contributed to a lack of findings. These and other limitations of the study are important to discuss in considering the applicability of its results.

Limitations

One major limitation in the present study is the nature of the sample. The sample lacked an adequate representation of different ethnic minorities, social classes, and educational groups. Furthermore, these educated individuals were most likely high functioning adults because in order to complete the questionnaires, the participant's level

of cognitive functioning was probably not impaired. Therefore, these results may not generalize to people who are suffering from memory impairments. In the future it would be helpful to identify and recruit individuals from diverse groups including individuals who are actually experiencing cognitive decline. In addition to making the results of the present study more externally valid, recruiting individuals with documented cognitive impairments could help us examine the differences between normal and pathological aging. Properly distinguishing individuals who incorrectly feel they have little control over their memories but actually have the resources to improve their memory from individuals who are truly losing control over their memories is extremely important in terms of the appropriate interventions for each group.

In addition the actual relationship between the three identity processes and memory controllability could manifest differently in diverse ethnic, economic, and educational groups; therefore future research with the IES in these groups is crucial to validating IPT. Future research with diverse groups may show that it is necessary to adapt the relevant interventions used with the different identity styles and beliefs in memory controllability, in these groups, because they were created from a homogenous sample.

This leads us to the second limitation of the present study which is that no actual cognitive measures were used. Therefore it is important to remember that when discussing the results we are only suggesting that an individual's identity is related to **beliefs** about memory control and not the actual ability to do so. Even though previous research shows that decreases in self-efficacy in memory, a construct related to memory controllability, it is essential that we directly test the relationship between identity

processes and actual memory performance while assessing memory controllability's role as a possible mediator or moderator of cognitive performance. Now that there is some support for the relationship between identity styles and memory controllability future studies should include the IES, self-efficacy and memory controllability measures, along with actual memory tasks. Consequently it is important to clarify that even though the present study found significant relationships between the identity processes of balance and accommodation and beliefs about controlling one's memory this relationship may not be unidirectional. Individuals' beliefs about controlling their memories could influence their identity perceptions just as well as vice versa; even though typically individuals develop their identities before becoming concerned with age-related decreases in cognitive impairment. Nevertheless this limitation of causality would better be examined in a series of testing over an extended period of time, leading to another key limitation of the present study; the cross-sectional design.

This limitation in the research design may have also affected the conclusions concerning the different age groups as a result of cohort effects rather than the actual age differences. Without a longitudinal or sequential design it is impossible to determine whether all individuals transitioning through midlife will use more accommodation than their elders. Similarly the relationship between health status and memory controllability in middle-aged adults, which was not present in older individuals, may be more indicative of two very different perspectives on health.

A variety of factors could have influenced each cohort's perception of health including differences in medical practices, health conditions, and attitudes towards physicians which may have developed as a result of exposure to different social climates

during their lifetimes. Besides the vast cohort differences that may actually occur in the population a specific cohort effect could influence individuals' response style, which is of primary interest because of the study's use of self-report. For example, older adults may have reported differently than middle-aged individuals as a result of their generation being more unfamiliar with testing situations or as result of their tendency to remain more private about their personal struggles than middle-aged individuals who were exposed to a culture in the 1970s that encouraged individuals to express themselves and speak out against authority.

In fact, another important, yet, common limitation of this research was the use of self-report questionnaires. Respondents will often respond to questionnaires inaccurately to present themselves in a favorable light, especially older individual who are embarrassed or worried about sensitive age changes, such as memory impairment. The use of self-report in the present study may introduce bias into the sample. Overall, individuals tend to enhance themselves in psychological research using self-report; however, identity process theory would propose that individuals who over assimilate (i.e. defensive assimilators) may be more likely to deny difficulties and over report positive features of themselves than the general population. Thus, people with high scores on assimilation tend to avoid looking inward and recognizing negative features of their identities. Their high scores on assimilation may be related to their propensity to deny truly anxiety provoking aspects of the self.

Consequently, scores on the identity assimilation scale may not purely reflect identity processes but instead may reflect conscious or unconscious attempts at self-enhancement. Related to this idea is the notion that high scores on the memory

controllability inventory may reflect the defensive tendency for individuals to avoid accepting their inadequacies, weaknesses, and failures, especially for people who regard memory performance as important to their self-concept or identity. Future research should continue to examine identity assimilation in relation to defensive processes within personality such as when participants were administered the IES and the Defense Mechanism Inventory (DMI) in a study conducted by Whitbourne and colleagues (2002). It may also be helpful to obtain additional data regarding individuals' beliefs about memory controllability from the participants, as well as additional information from participants' family members and friends. This attempt to attain multiple measures could help increase the reliability of self-report questionnaires which are necessary to measure individuals' personal beliefs about age-related changes such as memory controllability.

One specific item that may have decreased the reliability of the current study's results is question #12 of the demographic form, which was an open-ended question assessing health status. The question asked participants to "describe [their] current physical health and any medical conditions." This vague question created a variety of responses that were difficult to classify. This lack of standardization and the corresponding classification of serious, minor or moderate, and no health condition should be refined in future investigations of health, identity processes, and memory controllability. Consequently the current results should be replicated with a more standardized measure of health especially when examining complicated interactions such as the one investigated in the present study (i.e. whether health status moderated the relationship between identity assimilation and memory controllability.)

Although the study had several limitations including a lack of diverse sample and possible overlapping identity processes (even though the overlap was controlled for in the regression) it still yielded important information about the relationship between identity processes and memory controllability, specifically concerning the identity process of balance. Regressions were run for each age group, 211 middle-aged and 84 older adults which is a relatively large sample. Also good reliability was established for the measures used in the study.

Future Directions

Results of the present study have shown additional support for the use of identity balance as an adaptive approach to the conceptualization of the aging self. In particular identity balance seems to be associated with higher memory controllability in both middle-aged and older adults. This identity style appears to be related to more successful aging at least in terms of beliefs about cognitive functioning. To understand further how to achieve balance it is necessary to learn more about the processes involved in this adaptive identity style. Therefore, future research should perhaps explore what it means to be “balanced” by adding a qualitative component to an exclusively quantitative approach. By learning more about how individuals achieve the desired identity process of balance we could develop more effective interventions and psychoeducation to individuals who may be struggling with their identity in the face of age-related changes.

On the other hand, future studies should examine theoretically, through quantitative means, whether balance is more of a by product of equal use of assimilation and accommodation rather than a separate identity process in and of itself. This could

perhaps be accomplished by conducting quadratic regressions of memory controllability on the identity processes as well as with other dependent variables of interest.

To further explore, develop, and validate IPT it seems necessary to examine the validity of the self-report measures such as the IES, especially since “defensive assimilators” may be individuals who tend to display themselves as more positive (e.g. balanced) than they really are even in relation to the overall tendency of individuals to present themselves in an overly favorable light. Perhaps by examining the correlations among assimilation, accommodation, and balance as well as comparing mean differences in the identity processes by a third variable that measures a tendency to conceal negative aspects of the self, for example, measuring self-concealment on the Self-Concealment Scale (SCS; Larson & Chastain, 1990) It may be helpful to model future analyses after similar analyses performed in a previous examination of identity processes and the defense mechanism of reversal (Sneed & Whitbourne, 2001).

In addition, longitudinal studies in which participants record their health (with a more standardized measure), their beliefs on controlling their memory, as well as their relative use of the three identity processes, could help clarify and address how these relationships change over time and throughout adulthood. A longitudinal or sequential design, although expensive and time consuming, could help discern whether changes in identity predict or reflect changes in cognitive and physical status as well as changes over time in outcome measures such as self-esteem and memory controllability.

Replication with diverse groups including different ethnic, economic, educational, and cognitively functioning samples are essential to investigating the applicability of the present study’s findings to these groups. These future studies with diverse samples could

alert researchers to necessary revisions of IPT for these individuals because IPT has been predominately examined with middle class, educated, and Caucasian samples. The use of a more efficient research design, new standardized health measures, and replication in diverse samples while further refining IPT theory could significantly contribute to the already important findings of the present study.

The results of the current study have been helpful in addressing the relationship among personality factors such as identity processes and psychological variables measuring self-efficacy regarding cognitive performance (i.e. memory controllability). To extend further these findings to cognitive studies examining real memory performance a follow up study should be conducted using actual cognitive testing. Experimental research with true measures of cognitive functioning could help clarify how identity processes influences genuine memory performance via the mechanism of self-efficacy or memory controllability. Future work relating memory (both in terms of self-efficacy and actual cognitive performance) and personality may be the first step in helping us understand the complicated and sensitive area of cognition in an aging population, especially since this area of functioning is considered vital to both middle-aged and older adults when conceptualizing their identity later in life.

APPENDIX
MATERIALS

INFORMED CONSENT FOR VOLUNTEERS

This is an optional extra-credit project for an introductory psychology course at the University of Massachusetts at Amherst. Taking part in research is an integral part of being a psychology major, pursuing a graduate degree in psychology, and eventually, becoming a psychologist. Students are being asked to administer to a relative or friend 40 years of age or older a packet of questionnaires concerning the use of health and mental health services in adulthood.

Please complete the enclosed questionnaire in a quiet place to work without interruption as best you can. If an item or section seems confusing or requires clarification, please re-read the directions for that section and respond as you interpret the question. Try not to hesitate but give your first response- your honest answer is appreciated.

All responses to the questionnaire will be kept confidential and anonymous. The student who administered this questionnaire will not have access to any of your responses. In addition, this consent form will be removed in order to remove your name from the response packet.

To insure your confidentiality: Place the questionnaire in the envelope provided, place the sticker provided across the seal and return your packet to the student, who will bring the packet to the experimenters. Packets not sealed with this sticker cannot be accepted. If you are uncomfortable with any questions or any part of this procedure, you are free to skip those questions or sections or withdraw your consent and discontinue your participation at any time without penalty.

If you have any questions regarding your participation in this project, or any section of this questionnaire, please contact Karyn Skultety at (413)-545-0041 (e-mail: karyns@psych.umass.edu) or Susan Whitbourne at (413)-545-4306 (e-mail: swhitbo@psych.umass.edu).

This research will help us to understand the use of health and mental health services in the adult years and we very much appreciate your assistance. Thank you for your cooperation!

Participant signature (relative or friend of student)

Date

Karyn Skultety, Department of Psychology, Division IV,
University of Massachusetts at Amherst, (413)-545-0041

Susan Whitbourne, Ph.D., Professor of Psychology,
University of Massachusetts at Amherst (413)-545-4306

DEMOGRAPHIC QUESTIONNAIRE

1. Date of Birth _____ / _____ / _____
 Month / Day / Year

You have just completed a packet of questionnaires regarding the use of health and mental health services. The variables being investigated in this study are the history of health and mental health service utilization and barriers to seeking services including depression, attitudes regarding psychotherapy, treatment fearfulness, dementia fearfulness, and help-seeking attitudes. The goal of the study is to learn more about how services are utilized and to discover what barriers are preventing the utilization of mental health services. Ideally, your responses will help to psychologists to better serve you! Thank you very much for taking your time to complete all nine sections of the questionnaire.

The anticipated date of completion for this study is May, 2002. If you are interested in the results and would like written information at the time of its completion, please contact Karyn Skultety at (413)-545-0041 (e-mail:karyns@psych.umass.edu) or Susan Whitbourne at (413)-545-4306 (e-mail: swhitbo@psych.umass.edu). We will be happy to make the results of this study available. After all, we couldn't have done it without you!

Thank you again!

Karyn Skultety, Department of Psychology, Division IV,
 University of Massachusetts at Amherst, (413)-545-0041

Susan Whitbourne, Ph.D., Professor of Psychology,
 University of Massachusetts at Amherst (413)-545-4306

2. Gender: Female _____ Male _____

Please check **one** answer for each of the following questions:

3. Current Marital Status: Single _____ Married _____ Cohabiting _____
 Separated _____ Divorced _____ Widowed _____

4. Ethnicity: Caucasian _____ African-American _____ Hispanic _____
 Asian _____ Other (specify) _____

5. Current Living Situation: Own home _____ Rent apartment _____
 Home of children _____ Retirement Community _____ Other (specify) _____

6. How many years of education have you completed? _____
(High School Grad = 12, College Grad = 16 or more, Grad School = 17 or more)

7. What, if any, is your religious affiliation? _____

8. How many times a year do you attend religious services? _____

9. How religious would you say you are? Very _____ Somewhat _____ Not at all _____

10. Are you retired? Yes _____ No _____

11. Most recent occupation (If retired, most recent occupation prior to retirement):

12. Please describe your current physical health and any medical conditions:

MEMORY CONTROLLABILITY INVENTORY AND AGING CONCERNS
SCALE

This is a questionnaire about your memory. Please indicate the extent to which you agree or disagree with each statement. Provide the answer that is right for you by circling the number from 1 to 7 that best describes your beliefs. If you **strongly disagree** with the statement, you would circle the number 1. If you **strongly agree** with the statement, you would circle the number 7. If you are **neutral**, you would circle the number 4.

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. There's not much I can do to keep my memory from going downhill. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I can remember the things I need to. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. I can't seem to figure out what to do to help me remember things. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. No matter how much I use my memory, it is bound to get worse as I get older. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Alzheimer's disease is a common problem among the elderly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. As I get older, I'll need to rely on others to remember things for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. If I work at it, I can improve my memory. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I'm not good at remembering things. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. If I use my memory a lot, it will stay in shape, just like muscles do if I exercise. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. I can find ways to improve my memory. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. When I forget something I am apt to think I have Alzheimer's disease. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I can't remember things, even if I want to. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. I think there's a good chance I will get Alzheimer's disease. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. If I use my memory often I won't lose it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

15. As I get older, I won't have to rely on others to remember things for me. 1 2 3 4 5 6 7
16. If I really want to remember something I can. 1 2 3 4 5 6 7
17. I can think of strategies to help me keep up my memory. 1 2 3 4 5 6 7
18. If I want to have a good memory I need to have others to help me remember. 1 2 3 4 5 6 7
19. I sometimes think I have Alzheimer's disease. 1 2 3 4 5 6 7
20. When it comes to memory, there is no way I can make up for the losses that come with age. 1 2 3 4 5 6 7

IDENTITY EXPERIENCE SCALE

Please circle the number next to each item that *best* describes yourself as you are in **general**. **Read each item carefully and think about your answer before you respond.** Answers range from 1 (not like me) to 7 (completely like me). Some items may appear similar but each item is unique. There are 33 items on this scale. **BE SURE TO ANSWER ALL ITEMS.**

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 1. Not very interested in advice from others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Spend little time wondering “why” I do things. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Have many doubts and questions about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Am influenced by my experiences but also feel I can control my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Don’t spend much effort reflecting on “who” I am | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Often wonder whether others like me or not. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Very influenced by what others think. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Often wonder about how my life could be different than it is. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Try to be flexible but also try to maintain my goals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Generally try to avoid change in my life or how I see myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Don’t think very deeply about my goals because I know what they are. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. At times I seriously question “who” I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. Behave according to what I think others want from me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. Feel that it’s hard to decide on which course I want in life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. Prefer to think only about the “good” in myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 16. Like to see myself as stable, consistent, and unlikely to change. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. Am challenged but not overwhelmed by change. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Need people to tell me they like me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. Feel I can handle disappointments about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Try to keep a steady course in life but am open to new ideas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. Try not to get into situations that cause me to question myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. Have had my share of experiences in which I've learned about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. Rely on others because I lack confidence in my judgment. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. Wonder what others will think of my behavior. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. Often change my mind as I consider different alternatives in life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 26. Feel confident in "who" I am but am willing to learn more about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 27. Don't think about my mistakes or shortcomings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28. When it comes to understanding myself, I'd rather not look too deeply. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. Often take stock of what I have or have not accomplished. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. Have a clear sense of my goals but am willing to consider alternatives. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. Am always looking for ways to improve myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 32. Not afraid to confront my failures | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. Have very few doubts or questions about myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEBRIEFING FORM

You have just completed a packet of questionnaires regarding the use of health and mental health services. The variables being investigated in this study are the history of health and mental health service utilization and barriers to seeking services including depression, attitudes regarding psychotherapy, treatment fearfulness, dementia fearfulness, and help-seeking attitudes. The goal of the study is to learn more about how services are utilized and to discover what barriers are preventing the utilization of mental health services. Ideally, your responses will help to psychologists to better serve you! Thank you very much for taking your time to complete all nine sections of the questionnaire.

The anticipated date of completion for this study is May, 2002. If you are interested in the results and would like written information at the time of its completion, please contact Karyn Skultety at (413)-545-0041 (e-mail:karyns@psych.umass.edu) or Susan Whitbourne at (413)-545-4306 (e-mail: swhitbo@psych.umass.edu). We will be happy to make the results of this study available. After all, we couldn't have done it without you!

Thank you again!

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