

REFLECTING ON ONE'S FUTURE VERSUS ONE'S PAST: EFFECTS ON DEATH
ANXIETY AND DEATH ACCEPTANCE

by

MOHAMED MAZHERUDDIN M. MULLA

JAMES C. HAMILTON, COMMITTEE CHAIR
REBECCA S. ALLEN
TRICIA H. WITTE

A THESIS

Submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of Psychology
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2015

Copyright Mazheruddin M. Mulla 2015
ALL RIGHTS RESERVED

ABSTRACT

The purpose of the current study was to explore the possibility of increasing death acceptance among a non-clinical sample of young adults. Recent empirical findings have supported the effectiveness of life review therapies and legacy exercises in helping people who are facing their imminent deaths reduce anxiety and distress. The premise of these treatments is that reviewing one's life in a therapeutic context, or through organizing family photographs or creating autobiographical materials, produces a sense of closure or completeness that increases death acceptance. The current study sought to determine whether having young participants think about their life to-date as a complete story could likewise produce transient decreases in death anxiety and increases in death acceptance. Specifically, I predicted that reflecting positively on one's past life experiences would produce a transient decrease in death anxiety and an increase in death acceptance. Results provided some support for this hypothesis; generally, participants who wrote about their past were found to be more accepting of death compared to those who did not. Moreover, they were found to be less avoidant compared to participants who wrote only about their future. These findings elucidate the potential benefits of applying life review therapy to increasing death acceptance in younger adults.

LIST OF ABBREVIATIONS AND SYMBOLS

α	Cronbach's alpha, a measure of internal consistency
F	Fisher's F ratio: a ratio of two variances
p	The probability of obtaining a value equal to or more extreme than the observed value under the conditions of the null hypothesis
$<$	Less than
$=$	Equal to

ACKNOWLEDGMENTS

First, I wish to thank my mentor and thesis committee chair, James Hamilton, for his encouragement, support, and guidance throughout the course of this project. His mentorship, in conjunction with the work involved in the composition of this thesis, has made it a truly rewarding and intellectually stimulating experience. I would also like to thank my other committee members, Rebecca Allen and Tricia Witte, for their interest, support, and feedback on this project. The contributions of my lab mates, in particular Jerome Lewis, are likewise deeply appreciated - their support and camaraderie significantly enhanced the quality of this experience, and the benefits I gained from it. Finally, I wish to thank my family, whose love and support I am inexpressibly grateful for and strengthened by every day.

CONTENTS

ABSTRACT.....	ii
LIST OF ABBREVIATIONS AND SYMBOLS.....	iii
ACKNOWLEDGMENTS.....	iv
1. INTRODUCTION.....	1
2. METHODS.....	11
3. RESULTS.....	15
4. DISCUSSION.....	21
REFERENCES.....	30
APPENDIX A: IRB APPROVAL.....	34

CHAPTER 1: INTRODUCTION

In the last few decades, health psychology research on end-of-life issues has been largely focused on physical illness and the goals of delaying and managing death. More recently studies have addressed the psychosocial dimensions of death and dying, such as attitudes and preferences for palliative treatment, and situational factors associated with a good death (Cox et al., 2013). Social scientists and the general public have become increasingly interested in the ways that we approach the topic of human death. Developments such as the hospice and palliative care movements signal a shift toward a more accepting attitude toward the inevitability of death. However, the goal of promoting death acceptance has generally been confined to older populations in medical settings. Nevertheless, there is evidence that death anxiety and low death acceptance are common among young and middle-aged adults as well, and that a lack of death acceptance can decrease quality of life and drive irrational decision-making for these individuals. Both the dearth of extant research in this area, and the potential benefits of advancing it on which the current study is predicated, are best understood in the context of several notable developments in the cultural and medical conceptualization of death.

Changes in the Treatment of Death

The past century has seen significant changes in the conceptualization of a good death. In previous eras, death was widely regarded as the culmination of life, and as such, a good death was thought to be one that concluded a well-lived life (Granda-Cameron & Houldin, 2012). The process of *dying* well was similarly conceived as one in which an individual approached death

well prepared, and moreover, with the communal support of friends and family (Granda-Cameron & Houldin, 2012). However, the predominance of these views began to decline in the early 1900's, as substantial advancements in technology and medicine introduced unprecedented possibilities for extending life and managing death. In conjunction with the increased role of hospitals in the delivery of health care after WWII, these changes gave impetus to a perspective that heavily favored a biomedical framework that shaped the modern meaning of death (Granda-Cameron & Houldin, 2012). Traditional views, in which death was regarded in a more spiritual light, and as part of life's journey, were overshadowed by the notion of death as a medical failure. Accordingly, many customary elements of the dying process were replaced as it was medicalized, changing dying from a home-based experience to a "technical event controlled by the medical team" (Granda-Cameron & Houldin, 2012). Death came to patients, not people.

The inadequacies of the modern medicalization of death, such as the transfer of authority into the hands of healthcare professionals, did not go unrecognized. By the middle of the 20th century, professionals from a variety of disciplines had begun to voice objections to the values and attitudes associated with the modern concept of death. These sentiments emerged and grew in parallel to findings from several studies supporting the need for greater transparency between healthcare providers and patients with regard to the dying process (Glaser & Strauss, 1965). The momentum of these views was reflected in a number of significant theoretical and practical changes in scientific and healthcare institutions respectively. More holistic concepts of a good death were promoted by leading health agencies such as the Institute of Medicine, which adopted the definition of a good death as "one that is free from avoidable distress and suffering for patients, families, and caregivers; in general accord with patients' and families' wishes; and reasonably consistent with clinical, cultural, and ethical standards" (Institute of Medicine, 1997).

In accordance with these broader views of what comprised a good death, a number of significant changes took place in healthcare to the ends of more comprehensively meeting patients' end-of-life needs. Perhaps most notable among these was the emergence of the hospice and palliative care programs, which not only promoted a return to less-medicalized settings for end-of-life care, but also encouraged more decision-making responsibility and control for patients and their families in managing death. Based on more comprehensive notions of well-being, such as the concept of total pain (Clark, 1999), the hospice model of care emphasized the importance of addressing not only physical, but mental, social and spiritual dimensions of dying process and the use of team-based care to meet the needs of patients and their families. Concurrent intellectual developments elucidating the significant psychological processes that accompany the dying experience, such as the five stages of grief model proposed by Elizabeth Kubler-Ross (1970), served to provide further support for hospice and palliative care programs, and thereby bolster their role as an important part of healthcare.

Despite the growth of these programs, the mainstream approach to end-of-life care in most Western countries remains distinctly and disproportionately medical in nature. Economic factors, such as the incentive structure of the healthcare system and reimbursement practices of insurance companies, compel the use of medical settings and procedures as a primary and often exclusive mode of managing the end of our lives. Consequently, behavioral and psychosocial aspects of health are often relegated to the status of secondary considerations.

Attitudes Toward Death

The current emphasis on biomedical factors in healthcare has somewhat paradoxically come to be reflected in the prevailing themes in health psychology literature on end-of-life issues. In recent years, research in the field has shown increasing attention to the study of factors

associated with alleviating physical illness and prolonging life. However, some of its branches have maintained a focus on psychosocial aspects of the dying process consistent with the biopsychosocial commitment to well-being and quality of life as the most important endpoints of health care interventions. For example, research in the applied field has focused on death education for healthcare professionals (Amenta, 1984; Wass, Corr, Pacholski, & Forfar, 1985). Another area of emphasis within this vein has been the examination of public attitudes towards palliative treatment and preferences for end-of-life care. Findings from a number of cross-sectional studies have shown strong consistency across various cultural and socio demographic groups with respect to the factors that are important in end-of-life care and the definition of a 'good death'. A large-scale survey of preferences for a good death among Dutch residents between 20 to 93 years old conducted by Rietjens and colleagues (2006) found that the vast majority of respondents considered the possibility to say goodbye to loved ones, dying with dignity, being able to decide about treatments at the end of life, and dying free of pain to be important elements for a good death. A review of literature on attitudes towards death and dying among older adults conducted by Cox and colleagues (2013) found that in addition to these factors, a significant number of respondents voiced the importance of being able to make preparations for death such as creating a will and planning their funeral. A U.K. based report by Seymore and colleagues (2009) on research regarding public attitudes towards death among adults of all ages likewise found that many respondents showed a desire to have pre-emptive discussions with physicians and make preparations for death such as creating advance directives for end-of-life care preferences (such as place of care) and medical treatment. Yet, data from a survey of the general public by the NatCenter for the Dying Matters coalition conducted the same year found that 71% of respondents had not talked about such issues with physicians or

family members, and only 4% had written advance statements for end-of-life care (NatCenter, 2009). These findings illustrate that while there is growing openness towards approaches to end-of-life care based on an acceptance of death, there has yet to be a corresponding shift in public and professional practices, which, to date remain primarily guided by the objective of treating physical symptoms.

Death Anxiety and Death Acceptance

A tacit yet fundamental assumption in research and practice guided by the mainstream medicalized approach to end-of-life care is that death is universally feared and should be avoided at all costs. Given this premise, fear and aversion are considered inevitable responses to the prospect of death, while their absence is thought to reflect denial of death (Wong et al., 1991; Bakan, 1971; Becker, 1973; Marshall, 1980). A distinct alternative to this view is the perspective on death put forth by existential philosophy. The existential school of thought stems from a set of ideas initially articulated by Friedrich Nietzsche, Soren Kierkegaard, and several other philosophers that focus on the analysis of subjective experience in relation to the fundamental realities of the human condition. A central theme in this philosophy is that human beings are not primarily rational by nature, but instead make decisions based on subjective meaning. In this view, fear of death is not a purely rational consequence of the awareness of our own mortality, but is also conditioned by the quality and meaning of our existence and by the event of death. This notion has been emphasized in several prominent areas of psychological theory and practice. Early advocates of humanistic psychology maintained that a sense that one's life is meaningful is an essential aspect of mental health and happiness. Frankl (1986) proposed that a primary source of human motivation is the goal of finding meaning in one's life. Likewise, Yalom (2008) posited that confronting meaninglessness and finding meaning were necessary to

resolving inner conflict. Butler (1974) endorsed a similar idea, suggesting that more than death, people feared a meaningless existence. A number of studies have demonstrated empirical support for these views. Durlak (1972) found that subjects who reported feeling a sense of purpose and meaning in their lives also reported less fear of death and more positive and accepting attitudes towards death. A similar effect was observed in a study by Quinn & Reznikoff (1985); subjects without a sense of purpose and direction in their lives exhibited high levels of death anxiety.

One of the most prominent explanations of the relationship between a sense of meaning in life and the way we approach death was proposed by Erickson in his theory of psychosocial development (1975). This theory states that human beings pass through eight developmental stages in which they must confront and overcome new challenges as they grow from infancy to adulthood. Each of these stages is characterized by a crisis of conflicting biological and sociocultural forces. In the eighth and final stage which occurs in late adulthood, individuals must resolve the conflict between integrity and despair and come to terms with their impending death. Integrity represents the view that one has lived a fulfilling and meaningful life, and manifests itself as wisdom and peace in the face of death. Conversely, despair represents the view that one has lived a disappointing and unfulfilling life, and manifests itself as fear and depression in the face of death.

According to Erikson, individuals arrive at integrity or despair through the task of retrospection; looking back on their life events and accomplishments. Whether one achieves contentment or fear in the face of death is largely determined by how they have come to perceive these experiences collectively. Thus, reviewing one's life positively may foster integrity by helping individuals to integrate memories into a meaningful whole and create a harmonious synthesis of past, present and future (Clayton, 1975). The therapeutic implications of this idea

were further elucidated through the work of Butler and Lewis (1982), which served as the basis for the development of reminiscence and life review exercises that are now widely used in psychotherapy for geriatric populations. Reminiscence is described as “the volitional or nonvolitional act or process of recollecting memories of oneself in the past”, typically in the form of daydreaming or storytelling, by oneself or with others (Haber, 2006). Life review is similarly centered on the recall of autobiographical memories, but involves a structured and systematic process of evaluating these memories as they relate to the meaning of one’s life.

The utility of these techniques in producing various positive psychological effects has been demonstrated empirically in numerous studies. Research has shown a significant positive association between life review and measures of ego integrity (Taft & Nehrke, 1990), life satisfaction (Fielden, 1990), and psychological well-being (Haight, 1988) among older adults in residential facilities. Both reminiscence and life review have also been shown to lead to significant decreases in loneliness and depression among older adults (Chiang Kai-Jo et al., 2010; Haight, Michel, & Hendrix, 1998). Furthermore, several studies have shown life review to have a direct impact on measures of death acceptance. Georgemiller & Maloney (1984) found that older adults who took part in a life review activity reported greater decreases in death denial compared to those in the alternative-activity control group. A study of elderly adults conducted by Flint, Gayton, & Ozmon (1983) likewise found a significant correlation between life review participants’ subjective satisfaction of their past life and death acceptance.

A conspicuous trend in this body of research is that it has focused almost exclusively on geriatric populations. One reason for this is that traditionally, much of the theoretical basis for reminiscence and life review techniques has considered death anxiety to be associated with the prospect of imminent death. However, empirical findings have not shown consistent support for

this assumption. Several studies examining death anxiety in the general population have found no significant age-related differences (Tomer and Eliason, 2000). In fact, some have even shown death anxiety to be higher in young and middle-aged adults than in the elderly (Tomer and Eliason, 2000). These findings endorse a view of death anxiety that is congruent with the position of positive psychology -namely, that the way we think and feel about death bears fundamental implications for our well being in *all* stages of life. Proponents of this view maintain that, even in the absence of the imminent threat of death, our experience and actions are framed by the pervasive awareness of our mortality (Wong & Tomer, 2011). Thus resolving the anxiety we feel towards death is not just part of dying well, but also living well (Yalom, 2008; Wong & Tomer, 2011). This view has been supported by research showing the beneficial effects of life review exercises on several factors related to quality of life, such as life satisfaction (Fielden, 1990), and psychological well-being (Haight, 1988). For example, Wong and Watt (1991) reported that seniors who revealed more integrity in their reminiscence of past life experiences were more likely to be healthier and happier. Little research has applied this rationale to empirically examining the potential benefits of life review and reminiscence exercises in non-geriatric populations. Most studies that *have* compared life review in younger versus older individuals have focused mostly on differences in the quality of memory recall, but not on differences in therapeutic benefits. However, there is some evidence to show that death anxiety and acceptance are similarly influenced by feelings of meaning and life completeness in younger adults as it is in older adults. A study by Tomer and Eliason (2005) conducted on a sample of college students found life regret to be a significant predictor of fear and avoidance of death. Participants' regret over both past life events and future situations that would preclude them from accomplishing basic life goals were independently predictive of their fear of death.

Results showed that perceptions of un-fulfilled life aspirations were related to their scores on measures of death acceptance. Participants' considerations of future situations that may preclude them from accomplishing life goals were also significantly associated with their level of death acceptance. These results suggest that exercises involving positive reflection on life experiences may have potential benefits for younger adults as well.

The findings described above support the notion of death acceptance as a beneficial attitude throughout all stages of life. However, an alternative consideration is that decreased fear of death may bear negative consequences for individuals and ultimately for society. This position is articulated by terror management theory, which posits that the driving force behind complex social processes – indeed, behind civilization itself- is the fundamental human fear of death (Greenberg et al., 1986). Studies deriving from this theory have shown that when faced with reminders of death, individuals manage the resulting fear by reinforcing cultural values that convey a sense of meaning (Greenberg et al., 1990). In the context of the present study, it may be of little practical consequence whether reminiscence provides a means of avoiding the fear of death rather than actually enhancing acceptance of death. However, it bears significant implications for theoretical discourse on the social consequences of death anxiety and death acceptance. Essentially, it presents the question of whether increasing acceptance of death may undermine our motivation to engage in a wide array of complex human behavior. The current study may provide a starting point for future research to further explore this issue.

The Current Study

To my knowledge, no studies thus far have examined whether positive reflection on life experiences may be *experimentally* induced to produce transient effects in measures of death anxiety and death acceptance in *young adults*. The current study aimed to address this possibility.

As has been observed in elderly populations, I hypothesized that individuals who reflected on positive past experiences would show the lowest death anxiety and highest death acceptance, relative to those who reflected on negative past experiences. I also hypothesized that regardless of the type of experiences one focused on, reflecting only on the past would be associated with greater increases in death acceptance and decreases in death anxiety, relative to focusing on both the past and future, or only on the future.

CHAPTER 2: METHODS

Sample

A total of 344 participants from an Introduction to Psychology class at the University of Alabama took part in the study in exchange for credit towards their course requirements. Only participants who spent at least 10 minutes completing the study and wrote at least 250 words were included in the dataset. Based on these criteria, a final sample of 297 participants was selected for analysis. The average time these participants spent on completing the study was 54.15 minutes, and the average word count of their narratives was 637.31. No data regarding their demographic background was collected for the current study.

Measures

Word Completion Task. Participants' implicit death anxiety was assessed with a word-stem completion task that has been widely used as a measure of implicit death anxiety in research on mortality salience (Arndt et al., 1997; Greenberg et al. 1994). The task consists of a list of 20 word fragments, nine of which can be completed as either death, or non-death related words (e.g. COFF__ as COFFIN OR COFFEE). Death anxiety score was calculated as the number of word stems completed as death-related words, with higher numbers representing greater death .

Death Acceptance Measure. Participants' death acceptance was assessed using the Death Attitude Profile Revised, a 32-item measure (Cronbach alpha = .64) developed by Wong and colleagues (1994). Items of this measure comprise five subscales of death attitudes, including Approach Acceptance (AA), Escape Acceptance (EA), Neutral Acceptance (NA), Fear of Death

(FD) and Death Avoidance (DA). These scales are thought to represent a set of different, but interrelated attitudes towards death: AA represents acceptance of death as a gateway to the afterlife, EA represents acceptance of death as an escape from a painful existence, NA represents acceptance of death as a natural part of life, FD represents conscious fear of death, and DA represents fearful avoidance of death-related cognitions. Previous research has shown these scales to have strong internal consistency, with alpha coefficients ranging from .65 () to .97 (AA), and strong test-retest reliability, with stability coefficients ranging from .61 (DA) to .95 (AA) (Wong, Reker & Gesser, 1994).

Text-Analysis Variables. These variables were calculated using the Linguistic Inquiry and Word Count (LIWC) program. This program contains a default set of word categories and a default dictionary that defines which words should be counted in the target text. Word variables are measured as the proportion of target words to non-target words within the text that is analyzed. The default LIWC variables (categories) used in the current study included death words, biology words, negative emotion words, positive emotion words, past-tense words, present-tense words, future-tense words.

Additional Measures. Participants also completed the Positive and Negative Affect Scale (Watson, Clark, & Tellegen, 1988), to assess whether emotional state was correlated with responses on other measures, and a three item manipulation check to assess whether they followed instructions specific to their assigned condition.

Procedure

Participants accessed the study websites through the psychology subject pool website. Participants received an email with a link to a welcome page, which included an overview of the study. They were then presented with an information statement, including the necessary material

for completion of the study and a description of their rights as research participants. If they agreed to participate, they could click a button stating “I understand and agree to continue”, which took them to an instructions page. Participants then read a cover story stating that the purpose of the study was to examine the way personality and language skills relate to the way people write. This page also contained general instructions, which gave an overview of what participants were asked to do: create an outline and write a life narrative summary, then complete a word completion task and fill out a few questionnaires.

On the next page, participants were asked to provide a title for each of four chapters in their autobiographical or biographical summary. Depending on the condition to which they were assigned, the title “Life right now” was already provided for chapter one, chapter three, or chapter five. Below the chapter titles, participants provided a two-sentence description for each of the five chapters. In other words, participants were asked to write a story of their life up to the present, their life from the present forward, or their life up to and beyond the present.

In addition to being randomly assigned to one of the three time focus conditions, participants were assigned to a positive, negative, or neutral valence condition. In the positive valence condition, participants were instructed to focus on sources of joy, accomplishment, and satisfaction as they wrote their story. In the negative valence condition, participants were instructed to focus on sources of sadness, shortcomings and dissatisfaction as they wrote their story. In all neutral valence conditions, participants were not given any additional instructions specifying a type of content to write about.

Over the next five pages, participants provided a one or two paragraph summary for each of the five chapters of their life-summary. After completing their summary for chapter five, participants were taken to a page that displayed the title and two-sentence summary of each

chapter provided earlier. Participants were asked to provide an overall summary for the five chapter summaries, describing their opinions and feelings about it. The time periods and valence of the content participants wrote about in these sections varied according to which condition they were assigned.

After completing the narrative writing section of the study, participants were asked to complete measures of implicit death anxiety (stem completion task), death acceptance and current emotion, in that order. Lastly, participants completed a brief manipulation check before being taken to a debriefing page.

CHAPTER 3: RESULTS

Preliminary Analyses

In my initial set of analyses, all nine conditions were tested to examine the effects of time focus and valence on measures of implicit death anxiety and death acceptance. Before differences between study conditions on the primary dependent measures were evaluated, preliminary analyses were conducted to ensure that the time focus and valence manipulations produced the intended effects. Two separate MANOVAs were conducted using text-analysis variables as dependent measures. For the time focus manipulation, these variables included measures of past-tense word use, present-tense word use, and future-tense word use. Results showed a significant main effect for focus condition, $F(6,572) = 44.7, p < .001$. Univariate tests indicated that past-tense words $F(2,288) = 146.624, p < .001, \eta^2 = .505$, present-tense words, $F(2,288) = 95.556, p < .001, \eta^2 = .399$, and future-tense words, $F(2,288) = 19.571, p < .001, \eta^2 = .120$, all varied significantly across focus conditions. Post-hoc analyses confirmed that the use of past and future-tense words in each focus condition differed significantly in the intended pattern; the use of past-tense words in the combined condition was significantly lower than in the past condition ($p < .001$), but significantly higher than in the future condition ($p < .001$). This effect was mirrored for future-tense words; use in the combined condition ($p = .011$) was significantly lower than in the future condition ($p = .001$), but higher than in the past condition ($p = .018$). Although participants in all of the focus conditions wrote one chapter about their present life, those in the combined condition used significantly more present-tense words than those in the past condition ($p < .001$), and significantly less than those

in the future condition ($p < .001$). The implications of these differences are discussed later in the paper.

For the valence manipulation, a second MANOVA was conducted using measures of negative emotion words and positive emotion words as dependant variables. There was a significant main effect for valence condition, $F(4,574) = 17.812, p < .001, \eta^2 = .110$. Univariate tests indicated that negative emotion words, $F(2,288) = 26.813, p < .001, \eta^2 = .157$, and positive emotion words, $F(2,288) = 14.345, p < .001, \eta^2 = .091$, both varied significantly across valence conditions in the expected direction. Post-hoc analyses confirmed that the type of emotion words used in each condition differed significantly in the intended pattern; the use of negative-emotion words was significantly higher in the negative valence condition compared to the neutral condition ($p < .001$) and positive condition ($p < .001$). This effect was mirrored in the use of positive emotion words, which was significantly higher in the positive valence condition ($p < .001$) compared to the neutral condition ($p = .002$) and negative condition ($p < .001$). However, the use of negative emotion words did not differ significantly between the neutral and positive conditions, and the use of positive emotion words did not differ significantly between the neutral and negative conditions.

A third MANOVA was conducted to test for any effects the valence condition may have had on participants' affect during the course of the study. Results indicated no significant differences in scores on dependent measures of positive and negative affect across valence conditions. This suggests that while the emotional content of participants' life-summaries was manipulated by the valence instructions, their affective state was not. Thus, it is unlikely that their responses on dependent measures were influenced by emotion. Taken together, these

findings indicate that the majority of participants followed the time focus and valence manipulation instructions for the autobiographical writing task.

Primary Analyses

The effects of time focus and valence on implicit death anxiety were examined first using a 3x3 factorial ANOVA to compare scores on the stem completion task across conditions. Results showed no significant differences between conditions on scores of implicit death anxiety. The effects of time focus and valence on death acceptance were then assessed using a multivariate analysis of scores on the 5 subscales of the DAP-R. There was a significant main effect for focus condition, $F(10,568) = 2.497, p = .006, \eta^2 = .0420$. Univariate tests indicated significant differences between focus conditions on the escape acceptance (EA) subscale, $F(2,288) = 4.307, p = .014, \eta^2 = .029$, and fear of death (FD) subscale, $F(2,288) = 3.454, p = .033, \eta^2 = .023$. Post-hoc analyses were partially consistent with my hypotheses. On the FD subscale, participants in the future condition reported significantly high fear of death compared to those in the combined condition ($p = .026$). Although they reported more fear of death than those in the past condition, this difference was not significant. On the EA subscale, participants in the past condition showed greater death acceptance than those in the future condition ($p = .045$). On the other hand, participants in the combined condition scored lower than those in the past condition ($p = 1$), and higher than those in the future condition ($p = .057$), neither of those differences were statistically significant.

In nearly all of the results of the 3x3 analyses, the relation of the past and future conditions was as predicted. However, death acceptance among those in the combined condition was seldom intermediate, as we had expected. It appears that the experience of writing about both the past and the future was more psychologically complex than we had anticipated. In light

of this observation, we considered the possibility that the inclusion of the combined condition might be obscuring important effects involving the time focus condition. To address this possibility we repeated the analyses described above, omitting the combined condition.

The effects of focus and valence condition on implicit death anxiety were re-assessed using a 2(past vs. future) x 3(valence) factorial ANOVA. As in the first set of analyses, no significant effects were detected on scores of implicit death anxiety. The effects of the focus conditions were then examined using a 2x3 multivariate analysis with the 5 subscales of the DAP-R as dependent measures. There was a significant multivariate main effect of focus condition, $F(5,186) = 3.339, p = .007, \eta^2 = .082$. Univariate tests indicated a somewhat different pattern of effects than that observed for the 3x3 analyses. With the combined condition omitted, the past and future conditions produced no effect of reported fear of death (FD). However, participants who wrote about the past reported significantly more escape acceptance (EA) of death than those who wrote about the future, $F(1,190) = 6.847, p = .010, \eta^2 = .035$. The 2x3 analyses revealed an additional significant effect for focus condition on the death avoidance (DA) subscale, $F(1,190) = 4.941, p = .027, \eta^2 = .082$. As predicted, those who wrote about the past indicated less death avoidance than those who wrote about the future.

Exploratory Analyses

The effects of the combined condition in our initial 3x3 analyses led me to suspect that there may have been unanticipated changes in participants' writing across different time periods of their life narratives. To explore this possibility, text-analysis variables were constructed for each chapter and submitted to a repeated measures analysis with writing condition as a between subjects factor. Results showed a significant interaction between negative emotion words and focus condition, $F(4,1172) = 7.231, p < .001, \eta^2 = .024$, indicating that the pattern of negative

emotion word use across chapters differed significantly between the three focus conditions. To examine these differences more closely, each focus condition was then analyzed separately using negative emotion word use in each chapter as a repeated measure. For the past focus condition, results showed a significant within-subjects effect for negative emotion word use, $F(4,420) = 3.187, p = .013, \eta^2 = .029$). Post-hoc analyses revealed that participants used significantly less negative emotion words in chapter one compared to chapter two ($p = .042$) and chapter four ($p = .04$). For the combined focus condition, results likewise showed a significant within-subjects effect for negative emotion word use, $F(4,400) = 20.091, p < .001, \eta^2 = .167$. Post-hoc analyses revealed that the proportion of negative emotion words used in chapter four and chapter five was significantly lower than the proportion used in chapter one ($p < .001$), chapter two ($p < .001$), and chapter three ($p < .001$). A significant within-subjects effect for negative emotion word use was again found in the future focus condition, $F(4,352) = 5.051, p = .001, \eta^2 = .054$. Post-hoc analyses revealed that participants used significantly more negative emotion words in chapter one than they did in chapter two ($p = .004$) and chapter three ($p = .010$). Collectively, these results suggest that participants tended to write more negatively about their past, compared to future stages of their life. To determine whether this difference accounted for the effects of focus condition, the 2x3 MANOVA with the five subscales of the DAP-R as dependent measures was re-run with negative emotion words entered as a covariate. The main effect for focus condition remained, $F(5, 185) = 2.527, p = .031, \eta^2 = .064$, suggesting that the observed increases in EA and decreases in DA associated with the past focus condition were not driven by the higher usage of negative emotion words.

Another possibility I explored was that participants in the past focus condition showed greater escape acceptance because they wrote more about physical health problems or death. A

2x3 MANOVA using the text-analysis variables of biology words and death words showed a significant effect for focus condition $F(3,188) = 14.845, p < .001, \eta^2 = .192$. Univariate tests indicated that there was a significant difference between the past and future conditions in the use of biology words, $F(1,190) = 11.384, p = .001, \eta^2 = .034$, but not the use of death words. Moreover, the greatest use of biology words was among participants in the future condition ($p = .001$), not among those in the past condition as would have been expected if they had written more about physical health problems.

A final aspect of participants' narratives I examined was the variance in the use of present-tense words. The results of my preliminary analyses of tense-related word use showed an unanticipated effect of focus condition on the use of present-tense words, $F(2,288) = 95.556, p < .001, \eta^2 = .399$. Post-hoc analyses indicated that participants in the future condition used a significantly greater proportion of present tense words than those in the combined condition ($p < .001$), and those in the combined condition used a significantly greater proportion of present tense words than those in the past condition ($p < .001$). However, an informal reading of participants' narratives revealed that these differences were not reflective of writing about one's present life in chapters about the future. Rather, they were driven by a subset of participants who described future events as if they were present in them. The pertinence of this phenomenon is considered in greater depth in the section below.

CHAPTER 4: DISCUSSION

The results of the current study provide some support for the hypothesis that even brief life-review exercises may produce transient increases in death acceptance among younger adults. Generally, participants who wrote about their past were found to be more accepting of death compared to those who did not. Moreover, when the combined condition was excluded, participants in the past condition were not only found to be more accepting of death than those in the future condition, but also less avoidant of it. These effects are analogous to those found in previous research on life-review interventions. Studies on older adults have shown participation in life-review therapy to be associated with increases in death acceptance and decreases in death denial (Gayton, & Ozmon, 1983; Georgemiller & Maloney, 1984). However, the nature of the life-review procedures used in these studies differed considerably from the manipulation used in the current study, and in the current study valence was *not* found to play a role in the observed changes in death acceptance. The findings of the current study are discussed with respect to these differences in the sections below.

Effects of Time Focus on Escape Acceptance

In both the full and revised analyses, the focus manipulation produced significant effects on the dimension of escape acceptance. The nature of this death acceptance subscale has several important implications for the interpretation of my findings. Escape acceptance is conceptualized as a view of death as an escape from a painful existence (Wong, Reker, & Gesser, 1994). Previous research has shown escape acceptance to be linked with reduced physical well-being in both older and younger adults (Wong, Reker, & Gesser, 1994). However, it is unlikely that this

association explains the increases in EA observed in the current study. Because participants were randomly assigned to the study conditions, it is improbable that a significantly greater number of participants with physical health problems were selected to write about their past. The possibility that reflecting on the past caused participants to write about negative health experiences also seems unlikely. In fact, text analysis showed that the use of biology related words, which includes medically related words, was actually higher among those who wrote about the future.

Increases in EA towards the end of life have also been associated with psychosocial factors, such as the increased social isolation and waning opportunity to engage in meaningful activities that are often experienced by older adults (Wong, Reker, & Gesser, 1994). Thus, I considered the possibility that writing about the past caused participants to reflect on the meaninglessness of the activities they have pursued, and the state of psychological isolation in which they have lived. Analysis of emotion word use indicated that participants in the past condition used significantly more negative emotion words. However, when the effects of the focus conditions on death acceptance were re-assessed with emotion words entered as a covariate, the significant association between reflecting on the past and increased EA remained. The absence of any significant differences between focus conditions on measures of affect provides further evidence that changes in escape acceptance were not the result of negative emotions experienced while writing about the past.

The notion that EA derives from a view of life as characterized by hardship suggests that it should have been sensitive to the valence manipulation. Specifically, participants in the negative valence condition who reflected on sources of sadness, shortcomings, and disappointments in their life to date could reasonably be expected find the view death as a relief from earthly suffering more agreeable than those who reflected on positive experiences.

However, no such effect was found. Thus, we are left with no obvious explanation for why escape acceptance was affected by writing about the past when other aspects of death acceptance were not. Of the various subscales related to acceptance, the escape acceptance subscale comes closest to tapping the sentiment of a readiness for death that stems from what has transpired in life. However, the relation between participants' appraisals of their life experiences and their acceptance of death could not be directly evaluated based on the measures included in the current study.

Not only were the effects of the negative valence condition absent, indeed, none of the valence conditions were associated with significant effects on any indicator of death acceptance or death anxiety. Previous studies have shown the positive emotional perspective in which individuals evaluate their past experiences during the process of life review therapy is integral to the benefits they achieve (Fielden, 1990; Haight, 1988). Accordingly, we had predicted that participants who reflected on their past in the positive valence condition would experience the greatest decreases in death anxiety and increases in death acceptance. However, this prediction was not supported. Though preliminary analyses provided some evidence that the valence conditions elicited congruent changes in participants' narratives, valence condition provided no additive or interactive influence on participants' acceptance of death.

The absence of valence effects in the current study may be due to several differences between the instructions given in the current study and those given in actual life-review therapies. For instance, in the current study participants in the positive valence condition were asked to focus on sources of joy, accomplishment, and satisfaction as they wrote their story. On the other hand, participants in life-review therapy are typically guided through the process of attending to both pleasant and painful experiences and re-evaluating them in a meaningful and

positive way over the course of several sessions (Haber, 2006; Taft & Nehrke, 1990). In contrast, the reflection task used in the current study was significantly shorter and less structured.

Furthermore, it directed participants to focus on one type of experience, rather than re-evaluate all major life experiences in a positive and meaningful way. In light of these distinctions, the absence of valence effects on death acceptance may be taken to imply (a) the manipulation was not powerful enough, and/or (b) reflecting exclusively on good experiences does not have the same effect as coming to terms with both the good and the bad ones.

Effects of Time Focus on Fear of Death

Analyses of the full design revealed a significant main effect of focus on FD. Conceptualized as negative thoughts and feelings towards the process of dying and the state of death, FD represents a lack of death acceptance (Wong, Reker, & Gesser, 1994). A corollary of my prediction that reflecting on the past would lead to greater death acceptance was that it would also lead to less FD. More specifically, we had expected that FD would be lowest among participants in the past condition and highest among those in the future condition. However, only the combined condition was associated with significantly less FD relative to the future condition. Although the past condition was also associated with less FD than the future condition, this difference was not statistically significant.

My initial assumption was that the combined condition would represent a lower dose of reflecting on the past, and a lower dose of reflecting on the future. However, it seems that writing about both the past and future may have caused participants to experience those time periods differently than if they had only written about one of them. For example, writing about an uncertain future may have caused participants to place more importance on their past. Conversely, writing about their past may have sensitized them to their futures in a way that did

not occur for the future-only participants. These sorts of interaction effects are made more likely by the structure of the autobiographical writing task, which required participants to provide titles and brief summaries for all five chapters before providing a lengthier narrative summary for each one in sequential order. In other words, they knew the scope of their autobiographical assignment before they began writing it in detail.

In addition, the extent to which participants in the combined condition reflected on a particular time period may not have been proportionate to the number of chapters they wrote about it, as I had originally assumed. Instructions for the writing task did not specify that participants should write about a set amount of time in each chapter. Accordingly, some participants in the combined condition may have reflected on their past to a greater or equal extent over the course of their two past chapters as those in the past condition did over the course of their four past chapters. Because the correspondence between the number of chapters participants wrote about each time period and the degree to which they reflected on it could not be determined, the meaning of comparisons between the combined condition and the other two time focus conditions is not entirely certain.

Effects of Time Focus on Death Avoidance

Analyses of the revised design showed that in addition to its effect on EA, the past condition was also associated with reductions in death avoidance (DA). DA is conceptualized as the avoidance of thoughts and feelings related to death in order to reduce the anxiety provoked by the prospect of one's own demise. The decrease in DA among participants in the past condition reflects two possible ways reflecting on the past may have influenced the avoidance of death-related cognitions. A direct way it may have influenced DA is by making participants think about death to a greater degree than reflecting on the future did. However, there was little

evidence of this in participants' narratives; text-analysis of death-related word use showed no significant differences between the past and future conditions. In fact, very few participants in either condition mentioned death at all. A second possibility is that although reflecting on the past did not make participants think about death more than their counterparts in the future condition, it created a psychological state in which those thoughts were experienced as less threatening.

Differences in Tense-Related Word Use

The differences found in the use of present-tense words between focus conditions suggests another weakness in the way I manipulated time focus. Although the number of chapters participants were asked to write about their present life was held constant across conditions, those in the future condition wrote in the present tense significantly more than those in the combined condition, and those in the combined condition wrote in the present tense significantly more than those in the past. An informal review of participants' narratives revealed that these differences were not due to the extent to which participants wrote about their current life, but rather, by the unexpected *way* they wrote about their past and future experiences. A subset of participants showed a tendency to describe past and future chapters of their life as if they were present in them. For instance, rather than saying "I hope to retire at this point in my life", some participants wrote "I am retired at this point in my life". For these participants, the lack of reflective tone when describing past events, and the lack of an anticipatory tone when describing future events may have negated the intended effects of writing about different time periods, and consequently, weakened the effects of the manipulation on death acceptance.

Absence of Effects on Death Anxiety

In contrast to my prediction, the significant differences in death acceptance between

focus conditions were not reflected in significant differences on the dependent measure of death anxiety. Specifically, I had expected that participants in the past condition would have lower death anxiety than those in the combined and future conditions, and that this effect would be most pronounced for those within the positive valence condition. On the contrary, none of the study conditions were significantly associated with changes in death anxiety. There are several plausible reasons as to why this effect was absent in the current study. First, our prediction that death anxiety would vary as a result of the study conditions was based on previous research on mortality threat. Typically, studies in this vein have involved manipulations that directly prime participants to think about death. In contrast, my manipulation did not overtly require participants to think about death, but rather, required them to think about different stages of their lives. Consequently, it may not have elicited the spontaneous death-related cognitions that the measure of death anxiety was designed to capture. This was corroborated by my analysis of death-related word use, which showed no significant differences across study conditions. Together, these findings suggest that the changes in death attitudes observed in the current study were not the result of anxiety or emotion driven processes, nor were they an artifact of the degree to which participants wrote about death. Rather, they are more consistent with the idea that participants' scores on the DAP-R were the product of thoughtful, reflective responses.

Limitations

The findings described above reveal several shortcomings which stem from 3 basic methodological issues with the current study: (a) the fidelity of the valence manipulation to life review therapy, (b) the control of the time focus condition, and (c) the explanatory power of the dependent measures included. With regard to the first of these issues, both the brevity of the writing exercise and the nature of the valence instructions warrant consideration. As noted

previously in the discussion section, life review therapy involves a structured, multi-session intervention, while the current study involved a short autobiographical writing task. This format made it difficult to convey the level of guidance necessary to engage participants in a process of re-evaluating past experiences in a meaningful way. Rather, participants were simply instructed to focus on one type of experience.

The instructions for the focus conditions failed to exert enough control to achieve an optimal test of the writing task. For instance, they did not ask participants to write about a uniform amount of time in each chapter, thus allowing for extraneous variance in the degree to which participants reflected on each part of their story. Moreover, the unanticipated complications with the combined condition suggest that the format in which participants completed their stories may need to be modified to achieve a better control condition.

Finally, the dependent measures administered in the current study allowed for only a minimal analysis of the mechanisms responsible for the observed effects. Virtually no measures of psychosocial well-being, or other constructs potentially related to death acceptance, such as meaningfulness, purpose, and gratitude, were included. Furthermore, the text-analysis variables used represented only a few categories of words that could have yielded insight into the qualitative differences in narratives between conditions. Suggestions for resolving these limitations in future research are discussed below.

Conclusion

The current study provides novel findings that elucidate the potential benefits of applying life review therapy to increasing death acceptance in younger adults. Few, if any, studies to date have tested the possibility of experimentally inducing increases in death acceptance among individuals who are not facing death. In contrast to the mainstream conceptualization of death

acceptance as a task reserved for the end of life, my hypotheses derived from the existential view that coming to terms with one's mortality is not only important to the process of dying well, but also living well. Philosophy has long emphasized the connection between an acceptance of death and an authentic and meaningful existence (Wong & Tomer, 2011). More recently, the topic has begun to receive attention in the area of positive psychology. However, the body of empirical research on it remains sparse, and much work is needed to establish its application to, and dissemination within, the modern healthcare system. Growing awareness of the limits of medical technology in improving psychosocial well-being points to the need for a more holistic alternative to the current, biocentric approach to wellness. In accordance with this conviction, the current study aimed to explore the potential value of expanding the use of life-review and other therapies that promote awareness and acceptance of death to the general population. An important next step in determining their utility will be to examine their effects on various measures of psychosocial well-being in conjunction with the death attitudes that were the focus of the current study. In addition to including a broader range of variables, research in this direction may benefit from modifying the experimental paradigm used here to be more consistent with the format of life-review therapies. It is my hope that both the findings, as well as limitations, of the current study will serve as a building block for scientific and practical efforts to help individuals to overcome the terror of death as a means to help them embrace life.

REFERENCES

- Amenta, M. D. (1984). Death anxiety, purpose in life and duration of service in hospice volunteers. *Psychological Reports, 54*, 979-984.
- Arndt, J., Greenberg, J., Solomon, S., Pyszczynski, T., & Simon, L. (1997). Suppression, accessibility of death-related thoughts, and cultural worldview defense: Exploring the psychodynamics of terror management. *Journal of Personality and Social Psychology, 73*(1), 5-18.
- Bakan, D. (1971). *Disease, pain, and sacrifice: Toward a psychology of suffering*. Boston: Beacon.
- Becker, E. (1973). *The denial of death*. New York: Free Press.
- Butler, R. N., & Lewis, M. (1982). *Aging and mental health* (3rd ed.). St. Louis: C. V. Mosby Company.
- Butler, R.N. (1974). Successful aging and the role of the life review. *American Geriatric Society, 22*, 529-535.
- Catt, S., Blanchard, M., Addington-Hall, J., Zis, M., Blizard, R., King, M. (2005). Older adults' attitudes to death, palliative treatment and hospice care. *Palliative Medicine, 19*, 402.
- Clark, D. (1999). Total pain, disciplinary power and the body in the work of Cicely Saunders, 1958-1967. *Social Science and Medicine, 49*(6), 727-736.
- Clayton, V. (1975). Erickson's theory of human development as it applies to the aged. *Human Development, 18*, 119-128.
- Chiang, K., Chu, H., Chang, H., Chung, M., Chen, C., Chiou, H., Chou, K. (2010). The effects of reminiscence therapy on psychological well-being, depression, and loneliness among the institutionalized aged. *International Journal of Geriatric Psychiatry, 25* (4): 380-388.
- Cox, K., Bird, L., Arthur, A., Kennedy, S., Pollock, K., Kumar, A., Stanton, W., Seymour, J. (2013). Public attitudes to death and dying in the UK: a review of published literature. *BMJ Supportive & Palliative Care, 3*, 37-45.
- Erikson, E., & Erikson, J. (1997). *The life cycle completed: Extended version*. New York: W. W. Norton & Company.

- Erikson, E. (1975). *Life history and the historical moment*. New York: W. W. Norton & Company, Inc.
- Erikson, E. (1950). *Childhood and society*. New York: W. W. Norton and Company.
- Fielden, M. (1990) Reminiscence as a therapeutic intervention with sheltered housing residents: A comparative study. *British Journal of Social Work*, 20, 21-44.
- Fivush, R. & Haden, C. (2003). Autobiographical memory and the construction of a narrative self. Mahwah, NJ: Lawrence Erlbaum Associates.
- Frankl, V. (1986). *The doctor and the soul: From psychotherapy to logotherapy*. New York, NY: Vintage Books.
- Flint, G. A., Gayton, W. F., & Ozmon, K. L. (1983). Relationship between life satisfaction and acceptance of death by elderly persons. *Psychological Reports*, 53(1), 290-290.
- Georgemiller, R., Maloney, H. N. (1984). Group life review and denial of death. *Clinical Gerontologist*, 2(4),37-49.
- Glaser, B.G., Strauss, A.L. (1965). *Awareness of Dying*. Chicago, IL: Aldine Publishing Company.
- Granda-Cameron, C., Houldin, A. (2012). Concept analysis of good death in terminally ill patients. *American Journal of Hospice and Palliative Care*, 29(8), 632-639.
- Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. (1994). Role of consciousness and accessibility of death-related thoughts in mortality salience effects. *Journal of Personality and Social Psychology*, 67(4), 627-637
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., Lyon, D. (1990). Evidence for terror management II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology*, 58, 308–318.
- Greenberg, J., Pyszczynski, T. & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R.F. Baumeister (ed.), *Public Self and Private Self* (pp. 189-212). Springer-Verlag (New York).
- Haber, D. (2006). Life review: implementation, theory, research, and therapy. *International Journal of Aging and Human Development*, 63(2) 153-171.
- Haight, B., Michel, Y., & Hendrix, S. (2000). The extended effects of the life review in nursing home

- Haight, B., Michel, Y., & Hendrix, S. (1998). Life review: Preventing despair in newly relocated nursing home residents short- and long-term effects. *International Journal of Aging and Human Development*, 47, 119-142.
- Haight, B. (1988). The therapeutic role of a structured life review process in homebound elderly subjects. *Journal of Gerontology: Psychological Sciences*, 43, P40-P44.
- Institute of Medicine. *Approaching Death*. Washington, DC: National Academy Press; 1997.
- Jonsdottir, H., Jonsdottir, G., Steingrimsdottir, E., & Tryggvadottir, B. (2001). Group reminiscence among people with end-stage chronic lung diseases. *Journal of Advanced Nursing*, 35(1), 79-87.
- Judith AC Rietjens, Agnes van der Heide, Bregje D Onwuteaka-Philipsen, Paul J van der Maas and Gerrit van der Wal (2006). Preferences of the Dutch general public for a good death and association with end-of-life decision-making. *Palliative Medicine*, 20, 685.
- Kubler-Ross, E. (1970). *On Death and Dying*. London, UK: Tavistock.
- Marshall, V. M. (1980). *Last chapters: A sociology of aging and dying*. Monterey: Brooks/Cole.
- National Centre of Social Research (2009). *British Social Attitudes*. London, U.K.
- Quinn, P. K., & Reznikoff, M. (1985). The relationship between death anxiety and the subjective experience of time in the elderly. *International Journal of Aging and Human Development*, 21, 197-209.
- Reker, G., & Chamberlain, K. (2000). *Exploring existential meaning: Optimizing human development across the life span*. Thousand Oaks, CA: Sage Publications Inc.
- Saunders, C. (1986). The nature and nurture of pain control. *Journal of Pain and Symptom Management*, 1(4):199-201.
- Seymour J, Kennedy S, Arthur A, et al. Public attitudes to death, dying and bereavement: a systematic synthesis. A report to the National Council for Palliative Care and National End of Life Care Programme. Nottingham: University of Nottingham, 2009
- Taft, L., & Nehrke, M. (1990). Reminiscence, life review, and ego integrity in nursing home residents. *International Journal of Aging and Human Development*, 30, 189-196.
- Tomer, A., Eliason, G. (2005). Life Regrets and Death Attitudes in College Students. *Omega Journal of Death and Dying*, 51(3), 173-195.

- Tomer, A., & Eliason, G. (2000). Attitudes about life and death: Toward a comprehensive model of death anxiety. In A. Tomer (Ed.) *Death attitudes and the older adult: Theories, concepts, and applications* (pp. 3-22). Philadelphia: Brunner-Routledge.
- Wass, H., Corr, C. A., Pacholski, R. A., & Forfar, C. S. (1985). *Death education II: An annotated resource guide*. New York: Hemisphere Publishing Corp.
- Wong, P.T., Tomer, A. (2011) Beyond Terror and Denial: the positive psychology of death acceptance. *Death Studies*, 35, 99–106.
- Wong, P.T., Reker, G. T., Gesser, G. (1994). Death Attitude Profile-Revised: A multidimensional measure of attitudes towards death. In R. Neimeyer, *Death anxiety handbook: research, instrumentation, and application* (pp. 121-149) Washington, D.C.: Taylor & Francis.
- Wong, P. T., Watt, L.M. (1991). What Types of Reminiscence Are Associated With Successful Aging? *Psychology and Aging*, 2, 272-279.
- Wu, L. (2011). Group integrative reminiscence therapy on self-esteem, life satisfaction and depressive symptoms in institutionalized older veterans. *Journal of Clinical Nursing*, 20 (15-16), 2195–2203.
- Yalom, I. D. (2008). *Staring at the sun: Overcoming the terror of death*. San Francisco, CA: Jossey-Bass.

APPENDIX A: IRB APPROVAL

January 16, 2015

Office for Research

Institutional Review Board for the
Protection of Human Subjects

Mazheruddin Mulla
Dept. of Psychology
College of Arts and Sciences
Box 870348

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

Re: IRB # 15-OR-012, "Reflecting on One's Future vs. One's Past: Effects on Death Anxiety and Death Acceptance"

Dear Mr. Mulla:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on January 15, 2016. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

[Redacted Signature]

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama



358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461
FAX (205) 348-7189
TOLL FREE (877) 820-3066

IRB Project #:

UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

	Principal Investigator	Second Investigator	Third Investigator
Names:	Mazheruddin	James Hamilton	Jerome Lewis
Department:	Psychology	Psychology	Psychology
College:	Arts and Sciences	Arts and Sciences	Arts and Sciences
University:	The University of Alabama	The University of Alabama	The University of Alabama
Address:	198 Gordon Palmer Hall	375 Gordon Palmer Hall	375 Gordon Palmer Hall
Telephone:		348-0189	
FAX:		348-8648	
E-mail:	mmmulla@crimson.ua.edu	jchamilt@bama.ua.edu	jalewis3@crimson.ua.edu

Title of Research Project: Reflecting on One's Future vs. One's Past: Effects on Death Anxiety and Death Acceptance

Date Submitted:
Funding Source:

Type of Proposal	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Revision	<input type="checkbox"/> Renewal Please attach a renewal application	<input type="checkbox"/> Completed	<input type="checkbox"/> Exempt
Please attach a continuing review of studies form					
Please enter the original IRB # at the top of the page					

UA faculty or staff member signature: _____

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):

Type of Review: _____ Full board Expedited

IRB Action:

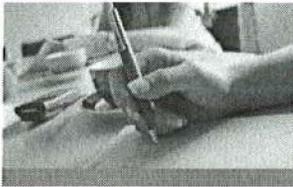
Rejected Date: _____
 Tabled Pending Revisions Date: _____
 Approved Pending Revisions Date: _____

Approved-this proposal complies with University and federal regulations for the protection of human subjects.

Approval is effective until the following date: 1-15-16

Items approved: Research protocol (dated 1-16-15)
 Informed consent (dated _____)
 Recruitment materials (dated _____)
 Other (dated _____)

Approval signature _____ Date 1/16/2015



The Psychology of Autobiography

Information Statement

Please read this agreement carefully.

Purpose of the research:

You are being asked to participate in a research study conducted by Dr. James Hamilton, Associate Professor of Psychology, and Maz Mulla, graduate student in Psychology. This research is concerned with the relationship between personality and writing style. We are interested in how various personality traits influence the way individuals write about and describe events.

What you will do in this study:

During this study you will do a brief writing task in which you will write about yourself. After completing this task you will be given a language-related task and a few short questionnaires to complete. The whole procedure will take approximately 1 hour.

Risks:

There are no anticipated risks associated with participating in this study beyond those you encounter routinely.

Benefits:

Although there will be no direct benefits to you as a participant, you will receive 1 credits toward your introductory psychology research requirement. You may also learn about psychological research and the ideas we are interested in exploring in this research. Eventually, the research may benefit society by helping us understand the beneficial ways writing tasks affect people.

Compensation:

The study will take approximately 1 hour to complete. You will not be paid for helping us.

Voluntary Withdrawal:

Your participation in this study is completely voluntary, and you may withdraw from the study at any time. You will receive credit for the amount of time you spend doing the study. Your decision to participate, decline, or withdraw participation will have no effect on your status at or relationship with The University of Alabama.

Confidentiality:

Your participation in this study will remain confidential. Your responses will be assigned a

code number that is kept in one file. The code number will be linked to your name in a different file, but the file with your name and the file with your responses from this study will be kept apart. All data and information statements will be stored in a secure, password-protected computer. Results of this study may be presented at conferences and/or published in books, journals, and/or in the popular media, but the responses of individual participants will not be part of those presentations.

Further information:

If you have questions about this study, please contact James Hamilton, Department of Psychology, University of Alabama, Tuscaloosa, AL 35487. Email: jchamilt@bama.ua.edu; phone: 205-348-0189. Alternatively, you may contact Maz Mulla through email: mmmulla@crimson.ua.edu.

Who to contact about your rights in this study:

If you have any questions or concerns about your rights as a research participant, please contact Tanta Myles, the University Research Compliance Officer at 205-348-8461 or toll free at 1-877-820-3066; email: rscompliance@fa.ua.edu. You may also ask questions, make suggestions, or file complaints and concerns through the [IRB Outreach website](#) or by [email](#). After you participate, you are encouraged to complete the survey for research participants, which is online at the outreach website.

 I understand and agree to continue I do not wish to participate

UA IRB Approved Document

Approval date: 1-16-15

Expiration date: 1-15-16