

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 8" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA**

UMI[®]
800-521-0600

University of Oklahoma

Graduate College

**To Laugh in the Face of Death: An Examination of the Connection Between Death
Attitudes and Sense of Humor From an Existential Perspective**

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

In partial fulfillment of the requirements for the

Degree of

Doctor of Philosophy

By

Michael E. Loescher

Norman, Oklahoma

2000

UMI Number: 9957004

UMI[®]

UMI Microform 9957004

Copyright 2000 by Bell & Howell Information and Learning Company.

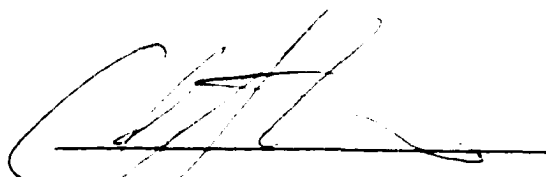
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.


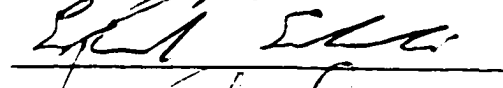
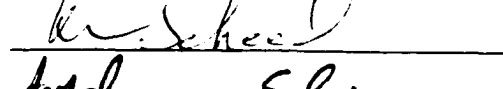

Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

**To Laugh in the Face of Death: An Examination of the Connection Between Death
Attitudes and Sense of Humor From an Existential Perspective**

**A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY**

BY


Chair

© Copyright by Michael E. Loescher 1999

All Rights Reserved

ACKNOWLEDGEMENTS

I would not have made it this far without the impact of the following people: Wolfgang E. Loescher, let's get another beer and another cheap tattoo, I am my father's son. Margaret and Joe Labahn, kin and the best of friends, thanks for not making me sleep in my car and for being nice to me even on those rare occasions when I was difficult to be around (as if there were any), I cherish you both, Viva Hutto! Kristie Loescher and Frank Buzz and Claire Buzz Loescher (her first pub!), for accepting me whether I was whining or laughing, Wolf (Mark) and Christina Loescher, may we always laugh at death together, my brother. Thanks for taking care of him, Red. The rest of the family especially Albrecht (both of them), Merwin, and Aunt Jane. To all, and in some cases in spite of, my teachers but mostly Miss. Rattenbury, who taught me how to teach and whose impact on me in second grade kept me in school all these years, and Mr. Klett for the music. The academicians of Duncanrig Secondary School, East Kilbride, Scotland, especially Mr. McClaren who let me juggle dead frozen rats, still trying to figure what I got out of that but it must be something. Alastair McLean, a damn good buddy. Some wonderful women, Elise, Gretchen, Rebecca, Maria, and Monica and the others but especially Janelle, you lasses defined me. The Friends of the Library Club, Keith, Matt, Jack, Jane, Craig, etc but especially Brad Stutzman, most days he eats the bear. Tom Pilgrim, who is willing to take off his watch for me when it gets rough. Charlie Bass, Michael Furois, Carmen Redlin, Mary Redlin, Robert Hagen, and friends from the past too numerous to mention. Someone at UT must have impacted me. thanks. Dr. Tomme Actkinson, who was my Masters Degree. Dr. Cal Stoltenberg who was my Doctorate. Dr. Gary Lindsay who led us all with passion and humor, we would have followed you anywhere. Dr. Fellner who taught me about humor in therapy and how to see through my own bull shit. Dr. Elia who taught me about humor in death, humor in life, how to heal myself and others, and how to play ping-pong, all at the same time. And the rest..... Thank you all!

DEDICATION

Dedicated with deepest love and respect to my mother, Mary Helen Waterman Loesch, a gentle, compassionate and wise woman who cared about education in general and mine in particular more than I often did, and who came through it all laughing and smiling and resilient; and brought me along too.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iv
DEDICATION.....	v
LIST OF TABLES.....	vii
LIST OF APPENDIXES.....	viii
ABSTRACT.....	iv
INTRODUCTION.....	1
METHOD.....	31
RESULTS.....	33
DISCUSSION.....	36
REFERENCES.....	45
TABLES.....	55
APPENDIXES.....	65

LIST OF TABLES

1. Summary of Expected and Actual Results.....	56
2. Descriptive Statistics.....	57
3. Intercorrelations Between Variables.....	58
4. Stepwise Multiple Regression for Total Humor Score.....	59
5. Answer to: <i>How many people close to you have died in the last year?</i>	60
6. Answer to: <i>How many people who were close to you have died in your lifetime?</i>	61
7. Answer to: <i>To what extent do you avoid funerals?</i>	62
8. Answer to: <i>When you are dead, what do you want done with your body?</i>	63
9. Answer to: <i>What are your spiritual beliefs?</i>	64

LIST OF APPENDIXES

A. Consent.....	66
B. Debrief.....	67
C. Demographic Questionnaire.....	68
D. Multidimensional Sense of Humor Scale.....	72
E. Death Attitude Profile-Revised.....	79
F. Institutional Review Board Approval.....	91

ABSTRACT

This study examined the relationship between sense of humor and death attitudes from an existential perspective. Participants in the study were 274 undergraduate students who completed a brief demographic instrument, the Death Attitude Profile- Revised (DAP-R) and the Multidimensional Sense of Humor Scale (MSHS). The author discovered the predicted negative correlation between scores on the humor production/ social uses dimension of the MSHS and the death avoidance scale of the DAP-R. The predicted connections between the humor production/ social uses category and the neutral acceptance death attitude did not materialize. The predicted relationship between the attitudes toward humor scale and the fear of death and death avoidance attitudes did not emerge in the analysis. No relationship was discovered between an overall high humor score on the MSHS and the fear of death and death avoidance components of the DAP-R. No significant correlation was discovered between the coping/adaptation category on the humor scale and the approach acceptance category on the death attitude instrument. No significant correlation was found between humor appreciation and escape acceptance. Finally, a stepwise multiple regression equation indicated that a slight relationship between death attitudes and sense of humor does exist with the greatest contributor to the total humor score being the neutral acceptance death attitude with minor contributions from approach acceptance and escape acceptance. The results were generally consistent with past research and the concept of active versus passive humor is addressed. The results are discussed from an existential perspective and the need for instruments with more specificity and psychometric accuracy is presented.

To Laugh in the Face of Death: An Examination of the Connection Between Death Attitudes and Sense of Humor From an Existential Perspective

Introduction

It is a commonly held belief that humor is inherently healthy, that laughter can assist in the healing process, and may, according to the popular media, be "the best medicine". It has been shown clearly and repeatedly that laughter can buoy us during times of psychological duress. A 1996 study of individuals across the life span discovered that "individuals with a higher frequency of laughter did not show greater levels of negative affect as stressful life events increased"(Kuiper & Martin, 1996). These results have been shown to hold true in a variety of populations including the elderly (Prerost, 1993) and undergraduate college students (Mannell, & McMahon, 1982). The field of medicine has also studied the impact of humor on the human organism with similar results. A study from the Stanford University School of Medicine in 1994 concluded that "humor, mirth, and laughter contribute positively to the maintenance of health and survival, from the standpoint of their physiologic effects" (Fry, 1994). We therefore know that humor is beneficial to both mind and body though the question of 'why' still remains illusory. It would appear beneficial to gain a greater understanding of how the mechanism of humor acts on us to improve health.

It has also been argued that humor has a curative effect in the realm of psychological and medical treatment. One school of thought argues that humor is a fundamental component of the practitioner/patient relationship. A study examining this hypothesis was performed in which researchers observed and analyzed video-taped interactions between physicians and patients. The data revealed that some form of humor occurred once every minute. The authors remarked that "the humor observed was varied and complex, and served to reinforce a sense of equality between physician and patient, to build a relationship between them, and to represent a sense of control and healing for the patient" (Squier, 1995) and this humor, according to the author, "did not detract from the patients perception of competent and professional medical care"(p.101). A multiple case study experiment in the field of psychology echoes the findings reported in the medical field concluding that "humor (or laughter) can have a beneficial effect on the therapeutic relationship by indicating a positive shift in the patient's perspective and by strengthening the patient

therapist bond” (Lusterman, 1992). A study conducted on a cancer ward indicates that the impact of humor may impact more than the doctor/patient relationship concluding that “positive emotions engendered by hospital humor can enhance prescribed medical treatment” (Erdman, 1993). The role of humor in the therapy room has received significant attention in the professional literature and on the whole is seen as a beneficial component of the therapeutic process. Interestingly, several studies address the use of humor with terminally ill patients, one of which concluded that “humor and laughter can be powerful therapeutic modalities in care of the terminally ill” (Dean, 1997). The value of humor in end of life issues is also addressed by several studies that focused on elderly populations. This body of research is in general agreement that humor with suicidal and depressed elderly clients can bring about “symptom relief and increased cohesion” (Richman, 1995), can “counter depressed mood while reviving a person’s sense of worth” (Prerost, 1993) and, in pain management, humor has been shown “to provide significant benefits to aged clients” (Adams & McGuire, 1986). Humor has also been shown to have a beneficial effect in other therapeutic venues. Significant improvements were reported with a schizophrenic inpatient population that viewed humorous movies in comparison with a control group (Gelkopf, Sigal, & Kramer, 1994), and, in the realm of couples therapy, a 1993 study reported that “using healthy humor during counseling can increase the number of positive experiences the couples share and serve as a means of strengthening their relationship” (McBrien, 1993).

While many have demonstrated the value of humor in medical and therapeutic sessions, few have offered theoretical reasons for humor’s curative additions to the healing process. A British psychologist bemoaned the paucity of rigorous quantitative research into the question of how humor works while arguing that it is the very nature of humor that makes it difficult to capture stating that “humor is a direct expression of unconscious processes. It brings together opposites, highlights contradictions, and shows up the absurdity of irreconcilable wishes” (Bloomfield, 1980). A better understanding of the curative process of humor might assist therapists in treatment strategies. Such an understanding might also lead to attempts to bolster or develop a sense of humor to increase the resilience in our clients. Finally, an understanding of the process could help to explain a variety of human behaviors in a wide variety of situations and environments.

To gain an understanding of the process of humor it is important to narrow the scope of our enquiry. Due to the lack of research on this subject, considerable work remains to be done to clarify the effects of humor. Thus, initial investigations will pave the way for more subsequent specificity. It is beyond the scope of this study to examine all permutations of humor's impact on the human condition. Instead, the subject will be viewed from the perspective of a specific psychological school, existentialism. This school of thought contends that much of our psychological suffering is intrinsically connected to questions surrounding our mortality. Thus, if we can understand the link between humor and our feelings towards death we may begin to understand the role humor plays in our lives.

As we have discussed, the existential school of psychology suggests that elevated anxiety surrounding death is a key indicator of poor psychological health and the literature supports this view (Neimeyer, 1988; White & Handal, 1990). Humor researchers contend that a healthy sense of humor is associated with a higher level of psychological health, and this postulate has been validated empirically (Carroll & Schmidt, 1992; Kuiper, Martin, & Dance, 1992). The purpose of the present investigation is to discover what role humor plays in the arena of death attitudes and, more specifically, whether there exists a connection between how we view our mortality and how we consume and produce humor. Secondly, if such a connection is found, is it possible to discover how humor impacts death attitudes? To arrive at an understanding of the concepts we will first broadly explore existential philosophy and existential psychology, then focus on death anxiety and other emotions and cognitions related to death and finally we will turn our attention to a discussion of the humor literature.

Existentialism

While the four pillars of existential psychology are death, freedom, isolation and meaninglessness, the concept of death permeates the existential literature at every level. The fathers of existential philosophy laid the groundwork for the eventual therapeutic spin-off early and often by discussing how the contemplation of the end of life filters our perceptions of our present existences. Martin Heidegger argued that 'being' (Dasein) is freedom toward death, implying that it is our temporal nature that gives (or prevents) meaning in life for each individual (Heidegger, 1962). In contrast, life is but a "useless passion" to Sartre (1956) because of the finality of its end. He intimates that there is no potential for meaning in

existence but upon further reflection indicates that death may, in fact, give life meaning. Kierkegaard postulated that awareness of death was a natural and essential part of our existence in that it drove people to make choices that could lead to a personally valid way of life. Nietzsche's concept of *will* was essentially a response to his belief in the futility of living (Nietzsche, 1886). He raised the stakes of the mortality issue by questioning how anyone could find meaning in a world where God, Himself, is dead. Similar themes percolated through literature and theology into modern times and eventually became grist for the therapeutic mill of a school of psychologists who became known as the existentialists.

The triumvirate of modern existential psychology is comprised of Victor Frankl, Rollo May, and Irvin Yalom. While others write and practice in the field, these three emerged as the dominant voices of the existential school. It is no surprise that this therapeutic approach focuses extensively on death and the anxiety produced by pondering our demise. Indeed, Yalom (1980) provides these basic postulates concerning death and psychopathology

1. The fear of death plays a major role in our internal experience; it haunts as does nothing else; it rumbles continuously under the surface; it is a dark unsettling presence at the rim of consciousness.
2. The child, at an early age, is pervasively preoccupied with death, and his or her major developmental task is to deal with terrifying fears of obliteration.
3. To cope with these fears, we erect defenses against death awareness, defenses that are based on denial, that shape character structure, and that, if maladaptive, result in clinical syndromes. In other words, psychopathology is the result of ineffective modes of death transcendence.
4. Lastly, a robust and effective approach to psychotherapy may be constructed on the foundation of death awareness.

(p. 27)

The second pillar of existential thought, freedom, is the concept that we are capable of deciding how we think, feel and behave in life, that we are, as Sartre described "the uncontested author of an event or a thing" (Sartre, 1956). Freedom, according to May and Yalom, means "that, contrary to everyda

experience, the human does not enter and ultimately exit from a structured universe with a coherent, grand design" (May & Yalom, 1987, p.377). Freedom does not have the same positive connotation in existentialism as it does in western thought but rather freedom, according to May "requires the individual to confront the limits of his or her destiny"(p.377). If we attempt to avoid or ignore freedom in our lives we are said to be living inauthentically according to Heidegger or in bad faith according to Sartre. The concept of freedom in existential psychology is composed of two related ideas, responsibility and willing. A person can be said to be living in bad faith if they refuse responsibility for the occurrences in their lives and their reactions to these occurrences. There are many modes of denying that responsibility. May and Yalom offer several examples: "some individuals displace responsibility for their situation onto other people, onto life circumstances, onto bosses and spouses, and, when they enter treatment, they transfer responsibility for therapy to their psychotherapist". They also argue that assuming the victim role or claiming insanity can be means of denying responsibility (p.378). This denial of responsibility does have clinical implications according to the existentialists. Arguing that an external locus of control can be equated with responsibility denial, Yalom, in a review of the empirical literature, reports that "externals, when contrasted to internals, have greater feelings of inadequacy, have more mood disturbances, are more tense, anxious, hostile and confused, are lower achievers, less politically active, and more suggestible; are less imaginative, more frustrated and more apprehensive" (Yalom, 1980 p.156). When it comes to death the existentialists argue that though you may not always be in control of your physical survival, you are always responsible for your approach to your demise. This point is illustrated in a story told to Yalom by Victor Frankl:

During World War I a Jewish army doctor was sitting in a fox hole with his gentile friend, an aristocratic colonel, and heavy shooting began. Teasingly the colonel said, "You are afraid, aren't you? That's just another proof that the Aryan race is superior to the Semitic one." "Sure I'm afraid," was the doctor's answer. "But who is superior? If you, my dear colonel, were as afraid as I am, you would have run away a long time ago."

(Frankl, 1970,p.275)

This story is not only an excellent example of how we are responsible for our choice of death attitudes but also illustrates how humor is used to influence that attitude. Humor can be viewed as one for of 'willing', the action that follows a sense of responsibility. Yalom refers to responsibility as the "vestibule" of change and willing as the remainder of the journey. His definition continues with a sampling from other thinker's writing that willing is "the mental agency that transforms awareness and knowledge into action, it is the bridge between desire and act. It is the mental state that precedes action (Aristotle). It is the mental 'organ of the future' – just as memory is the mental organ of the past (Arendt). It is the power of spontaneously beginning a series of successive things (Kant). It is the seat of volition, the 'responsible mover' within (Farber). It is the 'decisive factor in translating equilibrium into a process of change...an act occurring between insight and action that is experienced as effort or determination (Wheelis). It is the responsibility assumption –as opposed to responsibility awareness. It is that art of the psychic structure that has 'the capacity to make and implement choices (Arieti). It is a force composed of both power and desire, the 'trigger of effort', the mainspring of action" (Yalom 1980, p.289).

Pillar three, isolation, refers not just to individual aloneness but to a broader sense of global 'aloneness'. It is the realization that the individual "(1) constitutes others and (2) can never fully share his consciousness with others"(Mijuskovic, 1979, p.235). It relates to the other pillars through the realization that death is an intrinsically lonely task. No one can die for us or truly share the experience of our death. "No one," says Heidegger, "can take the other's death away from him." Our freedom also enforces our realization of existential isolation. In *Escape From Freedom* (1941), Fromm describes early childhood as the only safe place from awareness of existential issues and "as long as one was an integral part of the world, unaware of the possibilities and responsibilities of individual action, one did not need to be afraid of it. When one has become an individual, one stands alone and faces the world in all its perilous and overpowering aspects" (p.29). Since humor is an intrinsically social act (Kuiper & Martin, 1986) it can be viewed as an attempt to lessen the impact of this sense of isolation, as a drive towards connectedness. Conversely, those who can only passively appreciate humor without creating it might be doomed to a lower level of social interaction and a greater sense of existential isolation.

The fourth and final pillar of existential thought is the concept of meaninglessness. An anonymous suicide note provides an excellent starting point for discussion of the concept:

"Imagine a happy group of morons who are engaged in work. They are carrying bricks in an open field. As soon as they have stacked all the bricks at one end of the field, they proceed to transport them to the opposite end. This continues without stop and everyday and every year they are bus doing the same thing. One day one of the morons stops long enough to ask himself what he is doing. He wonders what purpose there is in carrying the bricks. And from that instant on he is not quite as content with his occupation as he had been before.

I am the moron who wonders why he is carrying the bricks."

(cited in Cantril & Bumstead, 1960, p. 308)

Meaning, according to the existentialists, "refers to sense or coherence. It is a general term for what is intended to be expressed by something, a search for meaning implies a search for coherence" (Yalom, 1980 p.423). On the forefront of the meaninglessness literature was Victor Frankl who used his experience in a death camp to create what he referred to as 'the third Viennese school of psychotherapy', Logotherapy. Meaning to Frankl falls into three categories. "1. What one accomplishes or gives to the world in terms of one's creations; 2. What one takes from the world in terms of encounters and experiences; 3. One's stand toward suffering, toward a fate that one cannot change." (Frankl, 1962 p.186). If we are unable to find meaning, a sense of coherence, we may suffer from a variety of maladies. Research results, collected by Yalom (1980), indicate that there is a greater level of psychopathology among people who have no meaning in their lives. Other results include a strong correlation between meaning and religious beliefs, group membership, dedication to a cause, and clear life goals. Death is the ultimate challenge to meaning in life, it is the temporal nature of our existence that makes us question "why we are carrying the bricks". As we will see later, humor is one of the mechanisms that assist us in finding meaning, in discovering a purpose for shouldering the hod.

Closely related to the concept of meaninglessness is the postulate that people carry within them a template of their ideal selves and are constantly comparing that template to the current reality. It has been asserted by the existentialists, most notable Sartre, that death anxiety is the result of the discrepancy between who we are and who we wish to be, that "unfinished business" makes the concept of death less

palatable. A 1981 study by Neimeyer and Chapman attempted to evaluate this discrepancy and the resulting increase in death anxiety. They reasoned that "To the individual whose central ideas remain unactualized, death threatens to destroy those expectations that granted life its significance; it aborts the development of an identity still unborn" (Neimeyer & Chapman 1981, p.234). For those without the void between ideal and reality "death is a source of less anxiety; it appropriately punctuates a meaningful life which has permitted the self to approximate its chosen ideals." (p.234). The researcher administered a death anxiety instrument to respondents rated low and high in discrepancy between real and ideal self. The results did indeed indicate a higher level of death anxiety in those who perceived a gulf between current self and ideal self.

Death

The study of death attitudes is far from the sole domain of the existentialists. Other schools have sought to make sense of our reaction to our terminal condition. Many theorists have sought to define death anxiety and most seek to break it down into its' component parts, such as a fear of what comes after death, the event of dying, and the fear of ceasing to be (Choron, 1964). Another three-tiered model describes past related regret, future related regret, and meaningfulness of death as the key components of death anxiety (Tomer & Eliason, 1996). Others have sought to place death anxiety under the heading of *threat* and have defined the anxiety associated with mortality as "the awareness of imminent comprehensive change in one's core role structures" (Neimeyer, 1989, p.98). While there exist many terms to describe negative death attitudes including fear of death, death concern and death awareness, there appears to be broad general agreement about the underlying components. That agreement ceases when it comes to psychological explanations for death anxiety.

The humanistic school with its' emphasis on self actualization indicated that death anxiety decreases as one climbs the ladder of basic needs (Maslow, 1970). Death anxiety is a product of a lack of positive regard according to Carl Rogers and thus is a threat that must be defended against (Rogers, 1959). The hospice movement prompted a focus on not how we fear death but how we cope with it (Bugen, 1980). Personal construct theory (Kelly, 1955) holds that humans value predictive abilities and will thus seek repetitive patterns as they build their worldview. When we are unable to find predictive patterns in our

internal or external world, such as the case of death, we feel threatened. The Neo-Freudian view describes death anxiety as a breakdown in the defensive mechanism of denial (Becker, 1973). Templer posited a two-factor model that included general psychological health and death related experiences as predictors of death anxiety (Gilliland & Templer, 1985). Erickson devoted a developmental stage to questions of mortality. His final stage of life, integrity versus despair, includes a life review where the expiring person is challenged to reflect on his or her existence (Erickson, Erickson, & Kinick, 1986). Terror management theory as espoused by Becker brings the cultural aspects of death anxiety into the equation (Rosensblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). This sociological view offers the notion that death anxiety can be moderated by a common belief system, safety in numbers, if you will. A cousin of existential theories, self-concept discrepancy theory (Higgins, 1987) postulates that we are made up of three selves, actual, ideal and ought. Death anxiety increases, according to the theory, as we note the disparity between our ideal and actual selves and realize how far we are from our ideal (ought) self.

Measurement of Death Attitudes

Traditionally our attitude toward death has been assumed to be one of anxiety. Amidst the numerous death anxiety theories there arose an equal number of instruments to measure the condition. Perhaps the father of death anxiety measurement is Donald Templer whose Death Anxiety Scale first appeared in 1969 (Templer, 1969). The venerable instrument has been used in countless studies and served as a base of departure from the instruments that followed. This one-score instrument gave way to a series of tests that labeled themselves as multidimensional. Suicide scholar David Lester collaborated with graduate student Lora Jean Collett to produce the Collett Lester Fear of Death Scale (Collett & Lester, 1969), a two-factor instrument that claimed to measure general attitudes toward death and inconsistencies in death attitudes. The Revised Death Anxiety Scale (Thorson & Perkins, 1977) offers four factors. This twenty-five item instrument that has been used with both true/false and Likert scoring. These factors are a fear of nonbeing, fear of pain, fear of life after death and decomposition, and a final factor that encompasses control, pain and afterlife beliefs. In 1979 the Multidimensional Fear of Death Scale (Hoelter, 1979) emerged. It attempted to empirically derive death anxiety factors. The analysis yielded a forty-two item instrument with six factors. The factors were fear of the dying process, fear of the dead, fear of being

destroyed, fear for significant others, fear of the unknown, fear of conscious death, fear for the body after death and fear of premature death. In 1980 the aforementioned Bugen debuted his Coping with Death Scale. This thirty item Likert scaled test seeks to discover levels of death competency rather than anxiety. It produces a single death competence score. The team of Corriveau and Kelly of personal construct theory fame introduced their instrument in 1985. The Corriveau-Kelly Death Anxiety Scale contains forty-eight items with multiple responses. Proponents claim that it is more reliable and internally consistent than Templer's offering. Templer reentered the arena in 1990 with a Death Depression Scale that sought to measure sadness as opposed to anxiety. The seventeen-item true/false instrument correlates highly with death anxiety scales and its authors claim reasonable psychometric soundness. Borrowing items from the Collett-Lester Fear of Death Scale and the Death Depression Scale, a group of researchers from the California School of Professional Psychology devised the Death Discomfort Differential. This ten item dichotomously scored instrument is admitted by the authors to be marginal in reliability and validity. One of the few death anxiety instruments currently in use that offers a theoretical basis for its construction is the Threat Index (Neimeyer & Moore, 1989). Based on Kelly's personal construct theory, this is a challenging instrument to score but makes impressive claims of psychometric soundness. It has been used in a variety of situations with many populations and remains a popular choice in the field of thanatological research (Prichard & Epting, 1992).

It is interesting to note that while death has been the traditional purview of the existentialist only one instrument claims to tackle the death question from a strictly existential perspective. This instrument is the Death Attitude Profile-Revised (Wong, Reker, & Gesser, 1988). The DAP-R is a thirty-two item Likert scaled instrument that rates death attitudes across five dimensions, fear of death, death avoidance, approach acceptance of death, escape acceptance of death and neutral acceptance of death. The authors base their argument on the simple posit that the "fear of death stems from the failure to find personal meaning for one's life and death" (Wong, Reker, & Gesser, 1988, p.123). The term acceptance in the dimensional construct is based on Kubler-Ross's four stage model of dying that culminates with acceptance and is preceded by denial, anger and bargaining (Kubler-Ross, 1969). The authors contend that the way we accept death is indicative of our level of death anxiety and that we all view our ultimate demise in one of five ways. Neutral acceptance of death is, as the title implies, a simple acceptance of mortality devoid of

fear or hysteria. This is seen as the posture of actualized individuals, to borrow from the humanists, who have found meaning in their lives and have met their hierarchy of needs. Death avoidance refers to the refusal when possible to contemplate nonexistence. The approach acceptance posture is generally found in people with a strong faith in a pleasant afterlife. This position is most often held by religious persons who view death as a ticket to better things. The escape acceptance category includes those who view death as a way out of an unpleasant existence. Finally there is the construct of fear of death which is the most conventional measurement of death anxiety but not the only one, for both the approach acceptance and escape acceptance category contain an element of denial. The approach acceptance construct implies a happy after-life that is for some an essential defense mechanism, a way to postpone death anxiety by having faith in immortality. The escape acceptance model is also a defense, a belief that the absence of pain is preferable to life; that nothing is better than something. While theologians can debate the existence or non-existence of an afterlife, all faith is inherently loaded with some level of anxiety as is the faith that beyond mortality there is nothing, thus it seems that the religious and atheist share the same bed and thus similar fears. Thus, it would appear that this instrument yields one zero anxiety component, neutral acceptance and four categories which contain some elements of the traditional death anxiety construct.

Impact of Death Attitudes

But what, if any, impact does this brand of anxiety have on our lives. This question has been widely researched (Wass, Berardo, & Neimeyer, 1988). The question of gender differences in death anxiety has been hotly debated. The early literature reported that females experience a higher level of death anxiety than males (Pollack, 1977) but this work was based primarily on affectively laden instruments such as the Death Anxiety Scale. Still, even when this and other factors were controlled for, including social desirability, women continued to show greater anxiety than men even on the more cognitively based Threat Index (Dattel & Neimeyer, 1990).

What we do for a living may impact the way we feel about dying. The occupational question has been addressed frequently with mixed results. Early findings indicated that health care professionals and health care students have a higher level of anxiety surrounding death (Feifel, Hanson, Jones & Edwards, 1967) but more current research (Neimeyer, Bagley, & Moore, 1986) has found little to substantiate that

claim. Other death related occupations including nursing home personnel (Eakes, 1985), hospice volunteers (Amenta & Weiner, 1981), suicide prevention personnel (Neimeyer & Dingemans, 1980), and funeral directors (Rockwell, 1981) have undergone examination with little indication that death anxiety varies widely between these occupations and non-death related work.

It has long been surmised that there is a difference in death attitudes between those in white collar and those in blue-collar professions and some support for this theory has been found. A study of 204 low S.E.S women in Wales indicates that many working class persons have a fatalistic attitude towards life and death and believed that most life threatening health issues are beyond their control (Pill & Stott, 1987). Similar fatalistic attitudes towards death were reported in a large, cross sectional study of 4200 persons in Wales. Of the respondents, those in the lower S.E.S. groups were more likely to project a fatalistic attitude towards death believing that health and disease are attributable to luck (Charny, Lambert, & Coombes, 1989). The related question of death anxiety in rural versus urban populations was posed by researchers in India who discovered that those in rural populations experience significantly higher death anxiety than their city living counterparts (Sinha, 1992).

One obvious target for research on death anxiety is general medical condition. There is some evidence suggesting that those in poorer health have greater levels of death anxiety, including ill nursing home patients who were found to have greater death anxiety than their peers (Mullins & Lopez, 1982) and heart attack patients who were found to have higher levels of death anxiety than other patients and non patients (Kumar & Mohan). However there is no clear consensus on this point since several studies have shown no variability based on health (e.g. Robinson & Wood, 1984). There is some indication however that ill persons facing death do so in a variety of ways (Geilen & Roche, 1979), ways that support the need for a multidimensional view of death attitudes. In a study of Huntington's disease patients Geilen & Roche discovered that the only consensus that emerged from the data is that the patients viewed death as an escape from pain consistent with the escape acceptance model of the DAP-R.

One's level of education may affect our attitude towards mortality according to some studies that indicate that education may ameliorate the impact of death anxiety. A study by Nelson in 1979 found that as years of education increases, level of death anxiety decreases in the categories of death denial and death avoidance. What mechanism is at play here is unclear from the research, nor was it possible due

to instrument selection, to assess which type of death acceptance is exhibited by those on the higher rung on the educational ladder. Conversely other studies have shown slight, if any, correlation between death anxiety and education (Viney, 1984). Clearly the educational variable is mired in cultural issues and these cultural issues have also been explored by death anxiety researchers. An international study of 260 participants found that residents of Japan have significantly higher levels of death anxiety than Australians (Schumaker, Warren, & Groth-Marnat, 1991). Another international study showed that Egyptians have slightly higher levels of death anxiety than Americans (Abdel-Khalek, 1986).

One would think that there is an obvious connection between death attitudes and religious beliefs but the data is not consistent on this issue. Early studies (Krieger, 1974; McMordie, 1978) found no clear correlation between religiosity and death anxiety. On the other hand some researchers have reported more complex results. A 1985 study by Rigdon and Epting indicated that those college students who experience less death anxiety have a stronger belief in the after life. Again, the DAP-R was not used in this study so it is difficult to fully understand the death stance taken by the subjects. An interesting study by Tobacyk in 1984 widened the spirituality definition by including other paranormal beliefs (e.g., witchcraft) in the study. Even then only traditional beliefs were negatively correlated with death anxiety. Numerous interdenominational studies have occurred indicating, for example, that people of the Jewish faith have a higher level of death anxiety than Protestants (Neimeyer, Dingemans, & Epting, 1977). Another study reported that Christians have the greatest level of death anxiety followed by Muslims and Hindus (Parsuram, & Sharma, 1992).

Many personality factors have been examined to discover what traits, if any, might be related to death attitudes. One study found a slight but positive correlation between general neuroticism and death anxiety in three hundred students (Howells & Field, 1982). Vargo and Black reported similar results in 1984 and Frazier and Foss-Goodman also found this connection in a 1988 study. The latter study also showed a positive correlation between death anxiety and type A behavior, a conclusion that has been found in other studies (e.g., Trammill et al, 1984). Several studies have examined death anxiety and psychological maladies including substance abuse. Results have shown that death anxiety is higher in heroin addicts than in alcoholics (Maqbool, 1991). Among a general inpatient population schizophrenics are reported to have a higher level of death anxiety than those with Bipolar disorder (Khanni, Khanna, & Sharma, 1988). In a

prison population, those who committed sex crimes had higher levels of death anxiety than a matched non incarcerated population. There is a clear and not surprising connection between death anxiety and anxiety in general (Gilliland & Templer, 1985; Tobacyk & Eckstein, 1981). Death anxiety has also been shown to be correlated with depression (Conte, Weiner, & Plutchnik, 1982) though no connection has been established between death anxiety and suicidal ideation or behavior (Krieger, Epting, & Leitner, 1974). Other examinations of personality factors have shown that an internal locus of control may serve as a buffer to death anxiety (Hayslip & Stewart-Bussey, 1986; Peterson, 1985; Vargo & Black, 1984), and self-esteem has found to be negatively correlated with death anxiety (Miller, Davis & Haes, 1993). It is clear therefore, that there is some relationship between death attitude and psychopathology but this connection is complex. A more sophisticated measure of death attitudes might lead to a clearer understanding of the interaction of these concepts.

Taking again the perspective of the Humanist school, numerous researchers have reported a connection between self actualization and minimal death concern. Most notably Robinson and Wood who, in a 1984 study of one hundred persons, discovered no connection between death anxiety and general health condition but consistent correlations between low death anxiety and high actualization scores. A study of nursing home residents supports this view showing that those subjects with a sense of purpose in life experienced lower death anxiety (Quinn & Reznikoff, 1985). The Adlerian position has been argued in several studies that examine death anxiety and birth order (e.g., Eckstein, & Tobacyk, 1979) which have shown some evidence that death anxiety is heightened among first born and only children.

Death Attitudes and the College Student

Although this study is not intended to be solely an examination of college students, critics might suggest that any potential results might not generalize easily to other age groups. There is, by no means, a clear consensus, on this argument. While a meta-analysis of death instruments is beyond the scope of this study, it is clear through a review of the literature that many death related instruments were, and continue to be, piloted or normed on a college population. This, in spite of the fact that, as the authors of the book Children and Death point out, "In all the texts and articles available on death, dying, and bereavement, very little is specific to the college campus environment (Papadatou & Papadatos, 1991). It is, therefore

important, to examine the unique attributes of our study population and possible ramifications thereof. We will perform this examination by first looking to the existing, though limited literature specific to college students, next we will glean what we can about this population from previously discussed literature on death attitudes, and finally we will apply a developmental model to this population and extrapolate what this might tell us about death attitudes in college students.

Many studies, most notably one performed by a leading figure in the death anxiety field, found that there is no significant relationship between age and fear of death (Templer, Ruff, & Franks, 1971). Many researchers believe that our death attitude is set at a young age and remains stable across the life span. Firestone hypothesizes that our fear of death becomes part of our personality in early childhood stating that "Early deprivation experiences, trauma, separation anxiety and the corresponding development of psychological defenses set the stage for an individual's method of coping with death anxiety" (Firestone, 1993, p. 497). This position has been echoed by others (e.g., Bea & Sicart, 1989). At the adolescent level it has been proposed that the first confrontation with death introduces the concept of finite time and establishes how we will view death throughout our life span (Toews, Martin & Prosen, 1985). Support for the pre-college formation of death attitudes is also found in a 1979 study that examined a variety of variables and their relationships to death concept including gender, level of parental education and degree of religious influence within the family. The study pool consisted of children from 2 to 26 years of age. Age was the only significant variable and the author concludes that, "Although children do differ in their concepts of death along an age continuum, the greatest change appears to occur about the time they enter school" (Swain, 1979), referring here to grade school. Only one study that examines the question of death attitudes and the specific population of college students exists in the literature. This venerable study was performed in 1936 on 825 students attending two midwestern universities. No gender differences were discovered in the sample. The researchers report a variety of other findings including the fact that college students "think of their own death very rarely or only occasionally" and that "almost 80 percent expressed a strong wish to live after death" and finally that "only 12 percent reported that they had a strong fear or horror of death" (Middleton, 1936). This study is of somewhat dubious value to our present study due to its' age and the lack of comparison with others at different stages in the life span. Questions about the consistency of death attitudes continue to resound however, some researchers argue that death anxiety is a

more elusive concept that has not shown itself to be stable across the life span. Support for this argument is found in two studies in which researchers argue that the elderly think more about death but fear it less than the younger generation (Kalish, 1977; Nelson, 1979). Rasmussen and Brems, however, argue that “psychosocial maturity is a better predictor of death anxiety than age” (Rasmussen & Brems, 1996, p.141). The authors are referring here to the life experiences of the individuals involved rather than the mere number of years of existence. As a caveat, it should be pointed out that the literature on suicide does pose questions about death, but these questions are specific to one type of very unusual and relatively rare death and are thus not representative of ones’ attitudes toward death as a whole. As we have discussed, no connection has been established between death anxiety and suicidal ideation or behavior (Krieger, Epting, & Leitner, 1974). It is thus dangerous to extrapolate from this data any conclusions on the larger existential death issue.

To further examine whether our proposed study population differs on the death attitude question from society as a whole, we now reflect back on the existing death attitude literature. We would expect if any specific death attitudes to be influenced by the occupation of ‘college student’ since the literature show little evidence on variation of death attitudes based on occupation. Attending a university is definitely a white-collar job so we could expect this population to be less fatalistic than a blue-collar sample. This difference is probably not as pronounced as in the past due to inclusion and diversity efforts by universities. While college students are likely to be at one of the healthiest stages of their life, general medical condition has not been shown to be an accurate predictor of death attitudes. As we have discussed, there exists no clear consensus on the question of death attitudes and education so it is difficult to argue that attending a university skews the death attitude data. Certainly there will be cultural differences in this study but there is no evidence to suggest that college students possess their own unique culture. A connection between psychopathology and death attitudes has been demonstrated but there is no evidence that a college population contains a higher level of pathology than the population as a whole. From this we can conclude that there is no clear evidence that a college student population varies greatly from the population as a whole on the question of death attitudes. Indeed, there is some evidence to suggest that our death attitude is selected earlier in life than college and remains relatively stable across the life span. This is, by no means, a

proven fact, thus great care must be taken to acknowledge the potential ambiguities when we address the results of this study

We will conclude our discussion of the specifics of our study group with a brief look at the developmental literature, specifically the work of Erickson (1959). Erickson postulated that life consists of the reaction to a variety of developmental challenges. The stage that contains the age group in our study college students, is encompassed by the Eriksonian stage of Identity and Repudiation versus Identity Diffusion. Erickson views this period as one where humans reach a new level of developmental completion. He uses the term 'psychosocial moratorium' to describe this time where society exerts less control over an individual so that they can become ready to enter adult life. In his own words, "Societies offer, as individuals require, more or less sanctioned intermediary periods between childhood and adulthood, institutionalized psychosocial moratoria, during which a lasting pattern of 'inner identity' is scheduled for relative completion" (quoted by Manaster, G., 1977). This is a time where identity either does, or does not, become stable. When the adolescent is not able to successfully make this transition to stable identity, problems ensue. "A state of acute identity diffusion usually becomes manifest at a time when the young individual finds himself exposed to a combination of experiences which demands his simultaneous commitment to physical intimacy (not by any means overtly sexual), to decisive occupational choice, to energetic competition, and to psychosocial self-definition" (Erickson, 1959). Severe diffusion can lead to an identity crisis. In his discussion of the issue in the book Adolescent Development and the Life Tasks the author concludes that most college students have not undergone a true identity crisis. "The real crisis comes when the adolescent encounters the life tasks as an adult. Non-college youth encounter the tasks earlier and directly from high school, without an extended period removed from home and work (Manaster, 1977). There is some evidence here, at least of a theoretical nature, that this is a period of attitude formation, where construction of stable attitudes about life are forming but may or may not be fully formed. This is an indication that we must be cautious with any conclusions drawn based on the sample population in this study.

The Existential Approach

Having examined a variety of theoretical approaches to death attitudes, numerous measurement devices, and a plethora of factors related to mortality, why then should we center on existential theory for our questions and answers in this study? First, existential philosophy evolved by asking the very questions we are asking. The ultimate questions of mortality have long been the focus of the psychologists who evolved from this school, indeed researchers argue "Death and its concomitant anxiety constitute a major theme in existentialism. In fact, were man not concerned with the nature and destiny of his existence, there would be no existentialism" (Martin, 1975). Existential thought provides the *lingua franca* for the death related questions we are asking and the answers we receive. Secondly, while other theories offer more specificity on certain issues, they lack the general broad theoretical base necessary for the complexity of the constructs we are examining. Other theoretical approaches offer guidance in explaining individual behaviors surrounding death but most seem to treat the affect surrounding death as pathology. The existential school views the pondering of our demise as a natural and indeed essential part of our life-spans and posits that it is this very struggle with these issues that gives meaning to life. Finally, when we review the large body of research on death attitudes and their impact on our lives we discover a vast collection of what is essentially correlational data. Existential theory presents us with a scaffold on which to hang this collection of data, a way to explain how the contemplation of death impacts our daily lives.

Having acknowledged our selection of existential theory as our approach to understanding death attitudes, we are somewhat limited in our selection of instruments with which to measure these attitudes. A review of existing instruments reflects the intense interest in this topic and also the variety of conceptual approaches used in the measurement process. Most, however, focus on the negative affective responses surrounding death, the most common being fear and anxiety. Many of these instruments have proven themselves to be psychometrically sound in the measurement of these predominant negative responses to mortality. Only one instrument, as we have discussed, purports to address the issues from an existential perspective, the Death Attitude Profile-Revised. This instrument not only serves as a measurement of the conventional death attitudes, fear and anxiety, but also allows for the measurement of more positive, developmental attitudes. In so doing, the DAP-R gives us a broader understanding of the death attitude picture.

Sense of Humor

We now take the leap from death to laughter. Humor theorists abound in the literature. There are literally hundreds of theories that attempt to explain what humor is, how it effects the body, how it effects the mind, how it is produced and how it is appreciated (Haig, 1988). What we know intuitively has been proven empirically, a sense of humor is associated with greater psychological well being. One of the most recent contributions to this knowledge come from a 1997 study that reported that sense of humor is associated with a variety of positive factors including optimism and self esteem, while a lack of sense of humor is associated with depression. The authors conclude that humor is "intimately related to quality of life" (Thorson, Powell, Sarmany-Shuller, & Hampes 1997, p. 605). But how does the mechanism of humor work? We will start with some of the more popular humor theories and then explore the impact of humor on a number factors including death anxiety.

Mastery theory views humor as a means of gaining perceived control over uncontrollable situations (Levine, 1977). Proponents argue that even in childhood we attempt to lower our discomfort in a strange environment by mastering concepts through humor. It is no great leap to see how this concept could apply to death. We laugh at death, the ultimate uncontrollable act, in an attempt to gain mastery over it. This mastery concept emerged from a qualitative study that concluded - "Humor is a healing, space making, ameliorating, relieving, salving phenomenon. It recharges, and is a source of strength in the face of difficulty, overwhelmedness, and feeling out of control" (Frecknall, 1994, p. 17). It is this wrestling with the 'overwhelmedness' that is described in mastery theory. Thorson coined the term 'offense mechanism' (as opposed to defense mechanism) to describe the active role that humor can bring to situations where we feel helpless, including death.

"Humor is one way in which the layperson can go on the offensive against the very concept of death. By making light of death, by laughing in the face of our own finiteness, we seek to gain some measure of control-however imperfect- over the uncontrollable. Although we all must die, we have, at least, the ability to laugh at the Grim Reaper. By making our own death unimportant, we make all death less important." (Thorson, 1985, p. 206)

The 'humor as a perspective taking act' theorists contend that humor "is an emotion focused coping technique that facilitates recovery from stressful circumstances" (Lefcourt, Davidson, Shepherd, Prkachin & Mills, 1995, p. 373). They argue that the use of humor can remove us from our typical worldview and allow us to see the situation from a more distant, less threatening perspective. This view was first espoused by Freud who wrote that humor protects us from "the affects to which the situation would naturally give rise and overrides with a jest the possibility of such an emotional display" (Freud, 1959, p.215). May also spoke of this perspective taking effect when he wrote that humor is "an expression of our uniquely human capacity to experience ourselves as subjects who are not swallowed up in the objective situation." (May, 1953, cited by Lefcourt, Davidson, Shepherd, Prkachin, & Mills, 1995, p.374). This theory contends that humor can protect us by allowing "for continued awareness in distressing circumstances but with diminished emotional reactions" (Lefcourt et. al. 1995, p.375). Lefcourt and Shepherd found some evidence for this theory when they studied persons who had and had not signed their organ donor cards. They found that "subjects who were highly authoritarian and low in perspective taking humor were least likely to have signed their organ donation forms (Lefcourt & Shephard, 1995). It should come as no surprise then that another organ donation study found that non donors scored higher on death anxiety instruments (Robbins, 1990). Clearly death could serve as a 'stressful experience' thus such theorists would argue that finding humor in our mortality allows us to stand apart from our death and view it from a less threatening perspective. We can, according to this theory, experience some aspects of death without actually dying. Further evidence for the perspective taking theory is offered in a 1997 study in which participants were shown perspective taking cartoons from Gary Larson's Farside collection, cartoons that portrayed humans as "bungling innocents and nerds". Participants were then given a death related task. Those who enjoyed the cartoons were less likely to be negatively impacted by the mortality exercise (Lefcourt, Davidson, Shepherd, & Phillips, 1997)

Robert Stevenson (1993) views humor as a coping skill and delineates five purposes for this type of humor: to cope with unpleasant reality, to illustrate the naturalness of death, to gain control over fears, to provide a safe outlet and to reinforce negative stereotypes. In a study designed to investigate the relationships between sense of humor and cognitive appraisals and reappraisals of a potentially stressful event, college students high in humor were shown to have more positive expectations of a stressful test

taking task than those low in humor (Kuiper, Martin, & Olinger, 1993). Another contributor to the coping humor literature is James Overholser, whose 1991 study of college students found that "humor was associated with lower loneliness, lower depression and higher self esteem." (p. 799) due to the effect humor has on coping ability. A study by Thorson and Powell in 1994, and again in 1997, confirmed the negative correlation between depression and sense of humor. Coping humor was also found to correlate with lower aggression (Thorson & Powell, 1993). In a very concrete example of coping humor a 1994 study showed that when given a challenging task subjects with a sense of humor rated the challenge positive and as less threatening (Kuiper, McKenzie, & Belanger, 1994). A 1986 study monitored the behavior of dental patients just prior to surgery. Those who laughed and joked prior to the dental work rated the experience as less stressful (Trice & Price-Greathouse, 1986), thus coping humor can act as a buffer between the strong negative affect associated with pondering our dentist and our demise.

Incongruity theory argues that humor occurs when "something clashes with our mental patterns and expectations" (Morreal, 1989, p.1). The proponents argue that it is our ability to discover and integrate patterns that make humor possible. They assert that because we are the only species on the planet capable of this behavior that we are the only species that can have a sense of humor. As pattern finding animals we are unable to make sense of death. It does not seem to fit into our experiential world because one can only die once. Thus there is a clash with our 'mental patterns and expectations' when it comes to thoughts of death and humor. A related line of research is the domains-interaction approach that has been used in humor analysis (Hillson & Martin, 1994). This semantic exploration is based on a model used in metaphor research. The research basically supports much of what is said by the incongruity researchers i.e., we find incongruous pairings to be funny. Another psycholinguistic approach that draws on incongruity theory is viewing humor as a violation of conversational cooperation (Attardo, 1993), the incongruity occurs when we are surprised by an unexpected response, a violation of the expected communicative pattern.

A subcategory of humor, wittiness, is defined as "the ability to perceive in an ingenious humorous manner the relationship between seemingly incongruous things" (Morris, 1976, p. 1047). One can assume that there is little as "incongruous" as the relationship between life and death. Humor production has been tackled through the creation of a multidimensional model of wittiness (Feingold & Mazzella, 1993). This model gained some empirical evidence in a study that showed that "wittiness ratings

are influenced by humor motivation and humor communication, whereas humor production taps on humor cognition, and sociability is positively correlated with humor motivation and humor communication but unrelated to humor cognition”(p. 439). Another subcategory of humor, irony, has received some scrutiny. It has been reported that in one experiment subjects “chose irony over literal language in order to be funny, to soften the edge of an insult,” and “to show themselves to be in control of their emotions” (Dews, Kaplan, & Winner, 1995, p. 347). Ironic humor is often used in death situations and this theory helps to explain how humor can lighten the mood, assist in dealing with the ‘insult’ of death and allows people (through perspective taking) to refrain from becoming overwhelmed by their emotions. Another subcategory of humor that has undergone some scrutiny is disparagement. One study has found that victimizing, belittling and insulting a target group can actually change a person's world view, and is a “source of dissonance motivated attitude change”(Hobden & Olson, 1994, p.239). This may suggest that by disparaging death humorously an attitude change could occur.

A more analytic view is taken by David Kortkov, who, in 1990, did a factor analysis of sense of humor and personality by examining four popular sense of humor scales. His results indicated a two factor model of the humorous personality trait, beliefs about humor in self and others, and laughter responsiveness. Working the other way, researchers have examined personality traits that are associated with sense of humor and many personality factors have been found to correlate including deference, exhibition, and dominance (Thorson & Powell, 1993). Analysis of data collected by Deaner and McContha in 1993 indicated that those who scored low in depression scored higher in coping humor, extraversion and neuroticism while those who scored high on humor tended to be more emotionally stable. The connection between sense of humor and extraversion was also shown in a large international study. One hundred and sixty five German university students and 118 American university students were studied with the conclusion that the “tendency to laugh is a characteristic of extraverts” (Ruch & Deckers, 1993, p. 211). There is some evidence that there is a link between intimacy and sense of humor with those scoring higher on intimacy instruments scoring at a similarly high level on measurements of sense of humor (Hampes, 1994).

Gender and humor has been studied by Canadian researchers who found many similarities between how men and women consume and produce humor with a few key differences. Women are

slightly less likely to create humor and are more likely to use coping humor. The study also examined age with the finding that we tend to become more humorously creative and are more likely to use coping humor as we enter late adulthood. Elderly subjects also showed a more negative attitude towards those who produce humor but a higher opinion of humor overall than their younger counterparts (Kruger, 1996). Another study involving humor and aging asked surviving siblings to rate their deceased brothers and/or sisters appreciation of humor. The results showed a positive relationship between humor appreciation and longevity (Yoder & Haude, 1995).

Some have pondered whether the basic mechanism of humor involves a simple redirection of our thoughts and feelings from the unpleasant to the more palatable, in short, a distraction. Humor as a distracting technique has been shown to increase pain tolerance (Weaver & Zillmann, 1994; Weisenberg, Tepper, & Schwarzwald, 1995). However, it is becoming clear that it is the distracting nature of the stimulus rather than humor itself that increases pain tolerance as evidenced by a 1993 study that reported that subjects exposed to either humor or tragic distracters experienced similar levels of pain tolerance elevation (Zillmann, Rockwell, Schweitzer, & Sundar, 1993). Thus the mechanism by which humor assists us appears to be more complex than simple distraction.

The key unifying component of the humor theorists is that humor is generally used to change our view of our immediate reality, to restructure or reinterpret our reality to make it more palatable. Whether we are using humor to distance ourselves from events or emotions, or are using humor to assist us in making sense of incongruity or using humor to assist us in the construction of patterns, the purpose remains the same, to assist us in making sense of our existence. Thus, humor is clearly a mechanism that can assist us in finding meaning or, in the words of the existentialists, decreasing meaninglessness. As we have discussed, humor is used to distance ourselves from events. The existentialist would point to the connection between this distancing act and freedom issues. In effect when we are attempting to avoid painful events or affective states we are refusing to accept responsibility for our existence the way it is. Finally, as humor is an inherently social and thus connecting act, it can be argued that humor can be used to ameliorate the effects of existential isolation. Further, humor is often used to show similarities and differences between groups (e.g. ethnic humor), the existentialists might view this as a way of discovering and creating cohesion in our own group, thus lowering the sense of isolation.

Measurement of Sense of Humor

While there is much consensus about what humor is on a general level, it has emerged as a difficult concept to measure. One of the earliest attempts to measure sense of humor was Svebak's Sense of Humor Questionnaire (Svebak, 1974). A brief instrument designed to measure the specific aspect of coping humor appeared in 1983, a seven-item instrument entitled the Coping Humor Scale (Martin & Lefcourt, 1983). Building on this work the same authors produced the more extensive Situational Humor Response Questionnaire (Martin & Lefcourt, 1984) consisting of twenty items. In an attempt to evaluate the efficacy of these instruments Thorson and Powell, following the lead of Korotkov (1990), subjected the to a rigorous statistical investigation. A factor analysis using a principal components extraction (Thorson & Powell, 1991) as performed on all three instruments. They concluded that the Svebak's Sense of Humor Scale does not measure what it claims to measure, namely liking humor and the ability to perceive humor. In fact, this twenty-one item scale produced six factor scores. The first general cluster measured negative attitudes towards people who produce humor. factor two involves the concept of not "getting the joke". The third factor measures whether the subject has a humorous outlook on life. The fourth factor measures inappropriate humor responses in social situations. The fifth factor measures appreciation of humorous people and the final factor measures the subjects' opinion on the social values of humor. They also point to a low Cronbach alpha of .512 as evidence of the poor reliability of this instrument. They conclude that the Svebak test "is more of an antihumor scale, haphazard in approach and focus, that might more appropriately be used for the measurement of misanthropy"(p. 699)

The Situational Humor Response Questionnaire broke down into five principal factors. Factor number one deals with the subjects' likelihood to laugh in positive situation, secondly a factor measuring the likelihood of laughter in negative situations. Factor three measures the likelihood of laughter in ambivalent situations. The fourth factor clusters on items indicating a self-preference for the likelihood to laugh, and the final factor refers to laughter when surprised. The instrument fared better under the statistical scrutiny but Thorson and Powell question whether propensity to laugh is equivalent to sense of humor, and conclude that these two concepts are very different. Thus the Situational Humor Response Questionnaire may be fine for an examination of laughter but not for the richer concept of sense of humor.

Finally, the authors agree that the seven item Coping Humor Scale does indeed measure what it purports to measure. The items load on two factors. The first factor focuses on the use of humor to cope in difficult situations. The second factor measures the value placed on coping humor by the respondent. The authors do however, decry the limits of the instrument's scope. Indeed Thorson and Powell (1991) argue passionately that sense of humor must be viewed as a multidimensional construct and they developed such an instrument just two years later (Thorson & Powell 1993).

The Multidimensional Sense of Humor Scale (MSHS) was created in an attempt to capture the complexities of the concept in a single, easily useable instrument. And it is the complexity of defining the concept that makes construction of such an instrument challenging. The inherent dichotomies of a sense of humor are discussed by Thorson and Powell as they attempt to arrive at a definition. "Sense of humor is really a way of looking at the world; it is a style, a means of self protection and getting along. Let a smile be your umbrella has a deeper meaning: Let humor protect you from life's grim realities. In the social realm, it can either be a way of going on the attack- political humor is a good example- or it can be a means of showing kindness, easing someone else's awkward situation or welcoming another into one's confidence" (Thorson & Powell, 1993, p. 13). The researchers developed a number of potential factors pertaining to sense of humor and, through factor analysis over three rounds of the instrument, arrived at four. The first factor pertains to humor production and the social uses of humor, the second relates to coping and adaptive humor. Factor three measures humor appreciation and attitude and the fourth encompasses attitudes towards humor. The finished product is a twenty-nine item instrument that asks subjects to rate their level of agreement with statements on a Likert scale.

Sense of Humor and Death Attitudes

There are two prior relevant studies that have attempted to discover the humor/death connection, one by Walter O'Connell, a researcher at a Veterans Administration Hospital (O'Connell, 1968) and another by the aforementioned team of Thorson and Powell (Thorson & Powell, 1993). Using a three tiered model of maturity postulated by Freud, O'Connell attempted to discover a psycho-analytic link between death attitudes and humor arguing that those who had attained the highest level of maturity as defined by Freud would possess greater humor in their acceptance of mortality. Freud postulated that a humorous

attitude towards death indicated the highest level of maturity followed by resignation and wit. Here Freud referred to 'gallows' humor, the highest form, as an indication that one neither repress nor denies thoughts of mortality, similar to the concept of neutral acceptance in the DAP-R. Resignation, the intermediate level, is hallmarked by acceptance without the accompanying 'rebellious pleasure' (p.393) which might be equated with either the approach acceptance or escape acceptance constructs of the DAP-R. Finally, the lowest level, wit, is an indication of repression and thus fear of death that might be associated with the construct of the same name in the DAP-R. It is important to note that Freud's concept of wit differs from the more contemporary view of the concept discussed earlier. O'Connell chose two instruments for this study, Kalish's Attitude on Social Issues Test to examine death attitudes and the author's own O'Connell's story test to tap into the humor construct. Ninety-six undergraduate students participated in the study. The students were all attending evening classes at universities in Texas. O'Connell drew several conclusions from the study. First he reports that there appears to be a difference between humor production and humor appreciation, a conclusion that is reflected in the MSHS. Secondly, the researcher contends that the ability to appreciate gallows humor "might be correlated with hyposensitivity toward certain thoughts of one's own death" (p.399). Finally, O'Connell tentatively reports that "the humorist is the kind of person who neither fears death excessively nor worships existence inordinately"(p.400). This final postulate seems to equate with the contention that those high in humor are likely to take a neutral acceptance stance towards death.

The author is his own harshest critic of the study and admits to an excessively high risk of Type II errors due to the small number of items in the factors of the Kalish instrument and the large number of examined correlations (378). The O'Connell Story Test itself was an instrument designed for this study and no psychometric data was reported. The test was created by generating humorous situations that were then rated for humorous content by a small number of psychologists. There is no data to indicate that psychologists are qualified to rate what the general public might find to be funny. There also remains the question of whether an evening class undergraduate population might be very different than normal undergraduate populations and even more different than the public at large since those who hold jobs and attend night school might possess a higher level of motivation and ambition than a standard undergraduate population. The researcher rightly points to a discovered difference between humor production and humor

consumption leaving the door open to return to this study with a humor instrument that implements this dichotomy, such as the MSHS. Finally the study does tend to indicate the utility of the death attitudes described in the DAP-R.

The second prior relevant study of death and humor was performed by Thorson and Powell (1993). It is possible, in fact likely, that Thorson and Powell designed the MSHS in part to discover the connection between sense of humor and death anxiety. In their introduction to the article that introduced the MSHS, the researchers questioned how a multidimensional sense of humor instrument might reveal the link between fear of death and humor. "One might think that a fairly straightforward study that compared death anxiety against personal sense of humor among samples at various ages would provide some evidence to enlighten us in this regard. However, while a variety of adequate measures of the fear of death are available, the lack of a reliable, valid sense of humor scale that is multidimensional frustrates such an approach" (Thorson & Powell, 1993, p.13). What followed was a study of just that relationship using the new instrument and the Revised Death Anxiety Scale also produced by the authors (Thorson & Powell, 1992). The twenty-five item instrument gives a single, general, fear of death score. This large study included 136 men and 290 women with an age range of 18 to 90 years. The results indicated a negative correlation between sense of humor and death anxiety but the strength of that correlation was much smaller than predicted ($r = -.13, p < .01$), (Thorson & Powell, 1993). The strongest correlation was the negative correlation between death anxiety and coping humor ($r = -.20, p < .01$). Significant negative correlations are also reported between death anxiety and the third and fourth factors, appreciation of humor and appreciation of humorous people ($r = -.13, p < .01$, & $r = -.16, p < .01$, respectively). The authors conclude, "We have some evidence, then, of a relationship between sense of humor and death anxiety, especially the expected association between lower death anxiety and coping humor" (p. 1365).

Of interest in this study is why the authors produce a multidimensional sense of humor scale and yet compare those scores to a single, unidimensional, one-score measurement of death anxiety. The study does indeed indicate that a connection exists but the simplicity of the Revised Death Anxiety Scale does not allow us to understand the mechanism of the connection. Of more interest would be the use of the MSHS and a multidimensional measurement of death attitudes. That instrument should possess psychometric

soundness and, more importantly, should be theory driven so that we can draw inferences from the results. It is my contention that the DAP-R meets these criteria.

Problem Statement

The purpose of this study is to examine the relationship between sense of humor and death attitudes from the viewpoint of existential theory. Based on this theory we can make several predictions about how sense of humor interacts with death attitudes. We would expect those who are high in the production of humor and who are adept in the social uses of humor to have a lower level of death anxiety for several reasons. As we have discussed, it has been shown empirically that there is a positive correlation between sense of humor and overall health (White & Handal, 1990) and a similar positive correlation between low death anxiety and overall health (Carroll & Schmidt, 1992; Kuiper, Martin, & Dance, 1992). Existential theory postulates that the more adept we are at finding meaning in our lives the more likely we are to have lower death anxiety. As we have seen in the humor literature, one mechanism for finding meaning, or lowering meaninglessness, is humor.

The existentialists view the recognition of our own freedom and the accompanying assumption of responsibility that follows as an important aspect of the death attitude struggle. When we are able to accept our freedom we will have a less intense reaction to mortality. Based on this argument, we would expect those who employ primarily coping humor to be more on the approach acceptance end of the death attitude continuum since such persons will often be higher in religiosity, employing theological attributions for responsibility (Neimeyer, 1988), and thus a lower level of personal responsibility.

The existential theorists point to our existential struggles with isolation as a component of our death attitudes. Humor has been shown to be a social and connecting act (Overholser, 1991). Thus we would expect those who do not appreciate or employ humor in their life to have a higher fear of death due to an increased level of existential isolation. Further evidence for this postulate can be seen in the empirical literature, that as we have discussed, shows a positive correlation between sense of humor and health, and a similar positive correlation between low death anxiety and health.

Based on all of these arguments, we would expect those who have a high overall sense of humor to be less likely to avoid death issues and a lower fear of death since they have found multiple methods to deal with the anxiety (White, 1990).

Hypotheses

From this discussion we can formulate three hypotheses and three research questions:

1. Persons who are adept at producing humor and who use humor socially will neither fear nor welcome death but will simply accept it (Carroll & Schmidt, 1992; Kuiper, Martin, & Dance, 1992; White & Handal, 1990;).
2. Persons who have a low opinion of humor and who neither practice creativity nor consumption of humor will avoid thoughts of death or have a fear of death (Lefcourt, Davidson, Shepherd, Phillips, Prkachin, & Mills, 1995).
3. Persons who have an overall well-rounded sense of humor and are able to both create and enjoy humor will have a lower fear of death (Lester, 1992; White 1990).

Research Questions

The following three questions are suggested by existential theory but there is no clear literature base from which to predict direction.

1. Will persons who employ coping humor extensively be likely to believe in a happy after-life and thus have a positive attitude toward death
2. Will persons who enjoy humor on the passive level but do not actively create humor be more likely to take a more negative attitude of life and thus view death as an escape
3. Is it possible to predict level of humor from one's death attitude

Following the work done by Thorson and Powell (1993), it seems logical to choose a multidimensional sense of humor scale and a multidimensional measure of death attitudes. Further, in order to draw inferences from this data the question should be addressed from a theoretical perspective. For the

purpose of this study I propose the use of the Multidimensional Sense of Humor Scale and the Death Attitude Profile-Revised, that is grounded in existential theory. The MSHS, as we have discussed, offers four dimensions: humor production/social uses, coping humor, humor consumption and humor attitude. The DAP-R produces five dimensions: fear of death, death avoidance, neutral acceptance, approach acceptance, and escape acceptance. We can operationalize our hypotheses as follows:

1. Scores on the Humor Production/Social Uses scale of the MSHS will correlate positively with scores on the Neutral Acceptance attitude component of the DAP-R and will correlate negatively with the Fear of Death and Death Avoidance scores of the DAP-R.
2. Scores on the Attitudes Toward Humor scale will correlate negatively with scores on the Fear of Death and Death Avoidance components of the DAP-R.
3. Overall scores on the MSHS will correlate negatively with scores on the Fear of Death and Death Avoidance scales of the DAP-R.

We can operationalize our research questions as follows:

1. Will scores on the Coping/Adaptation humor scale of the MSHS correlate positively with the Approach Acceptance score of the DAP-R and correlate negatively with the Fear of Death and Death Avoidance scores of the DAP-R?
2. Will scores on the Humor Appreciation scale of the MSHS correlate positively with the Escape Acceptance score of the DAP-R and correlate negatively with the Fear of Death and Death Avoidance scores of the DAP-R?
3. How well can a high score on the MSHS be predicted by DAP-R sub-scores? It should be noted that we are asking the question this way because the MSHS produces one overall score while the DAP-R does not. Thus we are using this statistic to search for further evidence of connection between these two variables.

Method

Three questionnaires, a measurement of sense of humor and a measurement of death attitudes along with a basic demographic instrument were administered.

Participants

Participants in the study were 274 undergraduate students at the University of Oklahoma who were taking introductory psychology and career guidance courses and received course credit for participation in research studies. Similar studies, most notably the Thorson and Powell study (1993) used approximately 300 subjects. The average age of the participants was twenty with a low of eighteen and a high of twenty-seven. 42.4 percent of the participants were male and 57.6 percent of the participants were female. In the sample 76.1 percent of participants described themselves as Caucasian, 8.8 percent listed themselves as African-American, 2 percent described themselves as Latino/Hispanic, 2.9 percent reported being Native-American and 10.2 percent chose the 'other' category. 60 % of the participants were at the freshman level academically, 21 percent were sophomores, 9.3 percent were juniors and 9.3 percent were seniors.

Measures

Each participant completed a brief demographic questionnaire (Appendix C) to gather age, ethnicity, gender and related data.

Each participant completed the Multidimensional Sense of Humor Scale (Thorson & Powell, 1993) (Appendix D). The MSHS is a twenty-nine item, seven Likert category instrument that measures sense of humor across four dimensions. The first dimension, Humor Production/Social Uses, is assessed through such items as "Other people tell me that I say funny things" and "My clever sayings amuse others". The second factor, Coping/Adaptation is measured through responses to such items as "Coping by using humor is an elegant way of adapting" and "Humor helps me cope." The third factor, Humor Appreciation is calculated through the use of such items as "I appreciate those who generate humor." and "I like a good joke". The fourth factor, Attitudes Toward Humor is measured through such items as "People who tell jokes are a pain in the neck" & "I am uncomfortable when everyone is cracking jokes." The MSHS features 18 positively phrased items and six negatively scored items to limit response-set bias. The lowest possible score is zero and the highest possible score is 96. A higher score indicates a higher level of humor. The instrument was subjected to a principal components factor analysis with only those items loading at .50 or higher in a given factor remaining in the final version of the instrument. The alpha of reliability for the

instrument as a whole was .92. It was found to be age and gender neutral meaning no statistical differences were found between age and gender and the total humor score. No psychometric information on the dimension scores is available.

Each participant completed the Death Attitude Profile-Revised (Appendix E) (Wong, Reker, & Gesser, 1988). The DAP-R is a thirty-two item, seven Likert category instrument that measures death attitudes across five dimensions. In each dimension a higher score denotes a higher level of that specific death attitude. The first dimension, Fear of Death, is assessed through such items as "Death is no doubt a grim experience" and "The prospect of my own death arouses anxiety in me." Factor two, Death Avoidance is measured through such items as "I avoid death thoughts at all costs" and "Whenever the thought of death enters my mind, I try to push it away." Neutral Acceptance is factor three and is measured by such items as "Death should be viewed as a natural, undeniable, and unavoidable event." and "Death is a natural aspect of life". The fourth factor, Approach Acceptance is rated through such items as "I believe that I will be in heaven after I die" and "Death is an entrance to a place of ultimate satisfaction". The fifth and final factor, Escape Acceptance, is assessed through such items as "Death will bring an end to all my troubles" and "Death provides an escape from this terrible world". A principle components factor analysis was used to create the instrument's five factors. The variance is distributed as follows: seven Fear of Death items, 13.4% of the variance; five Death Avoidance items, 7.7% of variance; five Escape Avoidance items, 6.0% of the variance; five Neutral Acceptance items; 5.7% of the variance. In all, 66.2% of the variance was accounted for through the five factors. Reliability is rated as good to very good with alpha coefficients ranging from a low of .65 to .97. Stability coefficients ranged from a low of .61 to a high of .95. Predicted correlations for this instrument with other instruments were generally confirmed giving the instrument adequate convergent and discriminant validity. Support for the concurrent validity of the instrument comes from a 1988 study by the authors (Wong, Reker, & Gesser, 1988) that showed that fear of death was negatively related to happiness, but positively related to hopelessness, the escape acceptance factor was also positively related to a hopelessness measure. Age differences have been discovered indicating that older adults had a lower death fear and a greater acceptance of death than young adults. Older adults were also more likely to indicate a belief in afterlife. Gender differences were also discovered with an indication

that women are more likely to believe in an afterlife and also view death as an escape more often than men. Men were much more likely to adopt the death avoidance stance than were women.

Procedure

Students were asked to participate in the study in exchange for course credit or extra credit. Results were gathered on Scantron forms with instruments presented in differing orders to prevent order effects. A written and verbal description of the study was provided to participants and a signed informed consent was secured before participation began (Appendix A.). Assistants familiar with the study were present to give directions and answer questions during the gathering of data. Subjects were debriefed in both written and oral forms following the study and were given information on how to obtain results of the study (Appendix B). No names or other identifying data were gathered for the purposes of this study.

Results

The statistical analyses in this investigation were comprised of a series of correlations and a stepwise multiple regression procedure. Multiple regression is a multivariate technique designed to determine the relationship between a dependent variable and several independent variables (Borg & Gall, 1989). It provides information about the magnitude and significance of the relationships between and among the variables. A summary of results is provided in Table 1. A summary of descriptive statistics is offered in Table 2.

First we examined whether or not there exists a positive correlation between the Humor Production/Social Uses scale of the MSHS and the Neutral Acceptance attitude component of the DAP-R. The means of the scale scores on both instruments were correlated. This was achieved through the use of the Pearson product-moment correlation (r). Secondly an attempt was made to discover whether or not a positive correlation existed between the Coping/Adaptation scale on the MSHS and the Approach Acceptance component of the DAP-R. Again this was achieved through the use of the Pearson product-moment correlation. Next, two Pearson product-moment correlations were performed to examine whether or not positive correlations exist between the Humor Appreciation scale of the MSHS and the Fear of Death and Death Avoidance components of the DAP-R. Two more Pearson product-moment correlations were

performed on the Attitudes Toward Humor scale and the Fear of Death and Death Avoidance scales on the DAP-R. A summary of correlations is provided in Table 2. Finally, a stepwise multiple regression was performed to see how well a high overall score on the MSHS could be predicted by the scales of the DAP-R. These results are summarized in Table 3.

Our first hypothesis was that persons who are adept at producing humor and who use humor socially will neither fear nor welcome death but will simply accept it. We operationalized this hypothesis by predicting that scores on the Humor Production/Social Uses scale of the MSHS would correlate positively with scores on the Neutral Acceptance attitude component of the DAP-R and negatively with the Fear of Death and Death Avoidance components of the DAP-R. In fact, a significant correlation ($r = -0.144, p = 0.0168$) between the Humor Production/Social Uses scale of the MSHS and the Neutral Acceptance component of the DAP-R was discovered, however the correlation was not in the predicted direction and was very small. Further, no significant correlation between the Humor Production/Social Uses scale of the MSHS and the Fear of Death component of the DAP-R ($r = 0.100, p = 0.0979$) was discovered. Finally, a significant correlation between the Humor Production/Social Uses scale of the MSHS and the Death Avoidance component of the DAP-R was discovered in the predicted direction ($r = -0.140, p = 0.0204$), although it is small.

The second hypothesis was that persons who have a low opinion of humor and who neither practice creativity nor consumption of humor will avoid thoughts of death or have a fear of death which we operationalized by predicting that scores on the Attitudes Toward Humor scale on the MSHS would correlate negatively with the Fear of Death and Death Avoidance scale scores of the DAP-R. In fact we found no significant correlation between the Attitudes Toward Humor scale and the Fear of Death component of the DAP-R ($r = -0.006, p = 0.9224$). No significant correlation was discovered between the Attitudes Toward Humor scale and the Death Avoidance component of the DAP-R ($r = 0.020, p = 0.7313$).

The final hypothesis was that persons who have an overall well-rounded sense of humor and who are able to both create and enjoy humor will have a lower fear of death as operationalized by a prediction that a overall MSHS scores would correlate negatively with Fear of Death and Death avoidance scores on the DAP-R. In fact, no significant correlation between the overall MSHS score and the Fear of Death

component of the DAP-R was discovered ($r = 0.094$, $p = 0.1203$). A further non-insignificant correlation between the overall MSHS core and the Death Avoidance component of the DAP-R was indicated ($r = -0.105$, $p = 0.0838$).

As for the research questions, it was first asked whether persons who employ coping humor extensively would be likely to believe in a happy after life and thus have a positive attitude towards death which we operationalized by comparing scores on the Coping/Adaptation Humor scale of the MSHS with scores on the Approach Acceptance component of the DAP-R and scores on the Fear of Death and Death Avoidance components of the DAP-R. A non significant correlation was found between the Coping/Adaptation score of the MSHS and the Approach Acceptance score of the DAP-R ($r = 0.145$, $p = 0.0162$) following the application of the conservative alpha level of $p < .008$ as determined by a Bonferroni adjustment. No significant correlation was found between the Coping /Adaptation score and the Fear of Death score ($r = 0.041$, $p = 0.4980$), nor was there a significant correlation between the Coping Adaptation score and the Death Avoidance Score ($r = -0.0318$, $p = 0.6000$).

The second research question posed whether persons who enjoy humor on the passive level but do not actively create humor would be more likely to take a more negative attitude of life and thus view death as an escape which we operationalized by comparing scores on the Humor Appreciation scale of the MSHS with scores on the Escape Acceptance component of the DAP-R the Fear of Death and Death Avoidance components of the DAP-R. No significant correlation between Humor Appreciation and Escape Acceptance ($r = 0.1311$, $p = 0.0301$) was discovered after the application of the conservative $p = .008$ of the Bonferroni adjustment. No significant correlation was discovered between Humor Appreciation and Fear of Death ($r = 0.1175$, $p = 0.0521$) and Humor Appreciation and Death Avoidance ($r = -0.0840$, $p = 0.1656$).

Finally we wondered whether it was possible to predict humor level by death attitude by a stepwise multiple regression. As discussed earlier, it was necessary to do the analyses this way since the MSHS gives a single overall score, unlike the DAP-R. The stepwise multiple regression indicated that the Neutral Acceptance component of the DAP-R was the single greatest contributor in predicting the total humor score ($F = 8.81$, $p = .003$, $r^2 = .0314$). The addition of the Approach Acceptance of the DAP-R improved the predictive abilities of the model ($F = 7.29$, $p = .007$, $r^2 = .0567$) and the addition of the Escape

Acceptance component of the DAP-R also furthered the predictive abilities only slightly ($r^2 = .0641$). The results are very small in magnitude indicating that death attitudes do very little to predict overall humor scores. A summary of these results is provided in Table 3.

Discussion

The purpose of this study was to examine the relationship between death attitudes and sense of humor from an existential perspective. The hypotheses predicted specific relationships between death and humor variables. In this study we found only one predicted significant correlation, that being a negative correlation between humor production/social uses and the attitude of death avoidance, but the magnitude of the correlation is not sufficient to allow for any clear conclusions. The results as a whole may be interpreted in one of several ways. First, we can conclude that the results are completely accurate and that the connection between death and sense of humor exists and is stable but is very small in magnitude. Secondly, we can conclude that the methodology was not sufficiently rigorous to discover stronger existing connections or perhaps magnified non-existent connections. Third, we can conclude that existential theory is inadequate to explain the processes at work. Fourth, it is possible that the age group selected for the study has not had sufficient exposure to death issues to allow for the full formation of attitudes at this stage in their life span. We will examine each of these possible conclusions as we revisit each of our hypotheses and research questions.

Existentialists argue that isolation is a key barrier to decreasing meaninglessness. Thus, socializing acts, those that connect us with others, assist in the discovery of meaning. The use of social humor is one such connecting act and we would therefore expect those who employ this type of humor to have an existentially healthy attitude about death. In this study it was predicted that there would be a positive correlation between humor production/ social uses and the neutral acceptance of death, which is seen as the healthiest death stance by the existential school. It was also predicted that there would be a negative correlation between humor production/social uses and fear of death and a similar negative correlation between humor production/social uses and death avoidance. This prediction was based on past research that

discovered positive correlations between humor and overall health (White & Handal, 1990) and other studies which indicated a positive correlation between low death anxiety and higher levels of health (Carroll & Schmidt, 1992). In the present study we did indeed find a statistically significant relationship between humor production/social uses and a neutral acceptance stance towards death, it was however not in the predicted direction nor was it of sufficient magnitude to draw clear conclusions. It is possible that this small significant result is a stable finding and is influenced by the developmental level of our sample. If we view death attitude as a developmental process with neutral acceptance as the peak, it is possible that this relatively young population has not yet had the opportunity to fully evolve this death stance. It may be that this youthful population is using humor to make sense of the world but has not yet had enough personal death experience on which to draw to allow them to move towards a neutral acceptance stance. This is evidenced by the fact that close to half of the sample had not dealt with the death of someone close in the last year and a similar percentage had only dealt with the death of 3-5 persons deemed as close in their lifetimes (See Tables 5 and 6). We might also conclude that our interpretation of existential theory does not apply here and that humor is not, as predicted, a way of accepting death but rather is used as a defense against considering death. Thus as humor production increases comfort with death decreases. No psychometric data exists for the dimension scores of the MSHS, thus it is possible that the scale in question does not accurately measure what it purports to measure. No significant correlation was found between humor production/social uses and fear of death but the predicted negative correlation between humor production/social uses and death avoidance did occur. From this we can cautiously glean that as humor production increases, the level of death avoidance decreases though the connection is small in magnitude. This is an indication that while humor production may not promote the healthiest death stance, it may at least decrease the likelihood of the adoption of a less healthy stance. If we accept attendance at funerals as an informal measurement of death avoidance, we find that over 40% of the population were neutral or negative about funeral attendance (see Table 7) thus a significant proportion of this population could be considered to be somewhat death avoidant. This conclusion may be a small but stable reflection of the active versus passive connection between humor and death. The small magnitude of the connection indicates that this might also be a spurious finding resulting from inaccurate measurement of the concepts involved since we have little psychometric data on either the MSHS scale or DAP-R scale in question. It

could also be that this finding is unique to people in this age category and would not occur in an older or younger population.

The Existential school argues that a decrease in meaninglessness promotes a healthier view of death and that humor is one method of discovering meaning. Thus it was thought that a positive attitude toward humor would not be associated with the less functional death attitudes. The predicted correlations between attitudes toward humor and fear of death, and attitudes towards humor and death avoidance did not materialize. This is an indication that merely being positive about humor does little to impact ones' death attitude. Only the active production of humor has any, though slight, ameliorating impact on the prevention of the selection of a maladaptive stance. This may indicate that there is something about the creative process of humor production that assists people in finding meaning in death and thus acts as a barrier against less functional death attitudes. More passive humor approaches, such as merely enjoying the creative humor of others, seem to play no role in the adoption of a death attitude. Again, we must be cautious about this suggestion. The MSHS was not designed as an instrument to examine passive versus active styles of sense of humor; it would thus be foolhardy to claim that this connection exists based on the small results of this single study. There may also be a simpler explanation for the apparent connection we have discovered. Correlational data does not allow for causative conclusions thus it may be that death attitude is dictating humor style rather than the direction we have predicted. There may be another unrelated variable at play here, extroversion, for example may be the causative connection between the variables and existential theory, as we have applied it, may have no bearing whatsoever on our finding. Finally, there may be something unique to this age group which makes this finding impossible to generalize.

Based on the existential belief that humor can assist in the lessening of meaninglessness and a decrease in isolation, a connection between overall humor and death attitudes was expected. It was predicted that the total humor score would correlate negatively with fear of death and death avoidance. No significant correlations were found between these variables in this study. Again it appears that the production of humor is the sole contributor impacting death attitudes and thus more passive elements of humor appear to play no role in death attitude adoption. Again, this conclusion must be viewed as tentative due to a variety of factors including the lack of psychometric data on the subscales in question. Next, while

data does exist to support our existential argument of the connection between sense of humor and death attitudes, very little has been done to test specific existential postulates, including those related to meaninglessness. Further, this is another correlational statistic that forbids causational explanations, it is thus possible that the connection does not work as we have hypothesized or there is another unknown agent acting on the equation. Finally, it can also be argued here that the unique age of our sample may be shielding a result that applies to other age groups. This sample's relative lack of direct death experience may indicate that results might be different for those with a higher level of psychosocial maturity.

The first research question was based on the existential concept that all people are free to make decisions and are responsible for their lives. That assumption of responsibility causes anxiety that is eventually resolved but the refusal to accept responsibility for one's life causes ongoing anxiety. One method for refusing responsibility is to assign responsibility for our lives elsewhere, such as a divine being. Coping humor, as we have discussed, is associated with those high in religiosity. Similarly, those high on religiosity scores also tend to adopt an approach acceptance stance towards death. We thus expected a relationship to exist between the coping adaptation score on the MSHS and the approach acceptance attitude. This relationship did not appear. This result can not be easily dismissed as being due to a lack of religiosity in the sample as the vast majority of participants listed their religion as Christian (See Table 9), of course, this is a rudimentary measure of religiosity and does not accurately measure the intensity or magnitude of religious belief. Without a formal measure of religiosity few, if any, solid inferences can be drawn from this data. There is a slight indication of a trend towards correlation here but a more rigorous exploration of the concepts involved is essential before concluding that any connection exists between the variables. The age of the subject pool coupled with the culture associated with the geographic location, an area considered to be part of the 'Bible belt', may have skewed the results in some way. Thus these results would be difficult to generalize across the lifespan and to other cultures. Further, we cannot draw causational conclusions from correlational data, thus some other explanation, other than our offered existential theory may be responsible for our results. It is certainly possible that our death attitude dictates our religious stance and/or our sense of humor style rather than the reverse as we have postulated here. No significant correlation was discovered between coping adaptation and fear of death and death avoidance indicating that coping humor may not buoy people against the more maladaptive death stances. This

conclusion is again offered with a list of cautions. Without a clearer understanding of the concepts involved here, including religiosity, this must be viewed only as a possible trend worthy, perhaps, of fuller examination. There may again be an unrelated factor, a subscale problem, a theoretical issue or age specific response that has impacted these results.

The most passive death attitude is escape acceptance. The most passive humor category is humor appreciation. It has been cautiously suggested in this study that active humor approaches are not associated with less healthy death attitudes. It was expected, therefore, that the two most passive categories would be related. In fact, a significant relationship was not discovered. There was an indication that a trend toward correlation did exist thus this may be an area worthy of future study. Neither instrument was designed to capture the active versus passive dichotomy, it would therefore be highly speculative to draw any such conclusions based on the data received. It is very possible that an unrelated factor, such as introversion, could explain the apparent trend and that the application of existential theory has little, if any, impact on the constructs in question. No relationship was found between humor appreciation and fear of death or humor appreciation and death avoidance. The fact that no such relationships were discovered may indicate that while an active stance towards humor may prevent the adoption of a negative death attitude, a passive humor approach does little to push one towards a maladaptive death stance. This conclusion is highly speculative since the correlational data does not allow for the accurate prediction of causation. All of the other interpretive warnings we have discussed, including lack of psychometric data for subscales, a potential failure in application of existential theory and issues specific to this age group, apply to this conclusion as well.

Our final analysis was a stepwise multiple regression designed to see how well total humor scores could be predicted by death attitudes. We elected to perform this analysis in what might appear to be a backward manner for purely logistic reasons. The MSHS produces a single overall score that can be used for comparison while the DAP-R does not. The analysis did indeed show that death attitudes have a very small but significant predictive ability. The single greatest determinant was neutral acceptance, the healthiest death attitude according to existential theory. Two other attitudes were minor contributors, approach acceptance and escape acceptance. The two most maladaptive attitudes according to existential theory, fear of death and death avoidance, were not significant predictors of the overall humor score. This

is further evidence, though slight, that there is some relationship between sense of humor and death attitudes. Only a very small proportion of the variance is explained by the death variables.

As we have discussed, there are numerous limitations to this present study. First, the instruments employed, while the best available, may not possess the psychometric rigor necessary to capture the intricacies of these two complex concepts, humor and death. Thorson and Powell compared the measuring of humor to a comment made by W.C. Fields on controlling the use of liquor "It's like trying to tie a hair ribbon on a bolt of lightening" (Thorson & Powell, 1993). Perhaps what we have discovered is that this task can only be completed if we use smaller ribbons, in other words, more specific, reliable humor and death attitude components. It is also possible that the existential approach does not lend itself to answering these types of questions with the specificity we are seeking. Concepts such as death, freedom, isolation and meaninglessness are difficult to encompass with numerical data and there is little scientific evidence in support of existential theory. Further, the existential arguments offered here are but one possible existential interpretation of the data from one existential perspective. Other existential researchers might view the hypotheses and results from a different, though equally valid, perspective. Another key limitation is the relative youth of the participants. As we have discussed, this population has had little direct experience with the death of others and thus may not have reached the developmental stage where the contemplation of demise receives sufficient attention to dictate the adoption of a stable death attitude. This study would have benefited greatly from a larger sample that included those in differing parts of the life cycle. On a somewhat related note, this study is also limited by the lack of exploration of gender and cultural issues, issues that clearly play important roles in both sense of humor and death attitude.

This study has shown that there is indeed some connection between death attitudes and sense of humor albeit small, thus supporting prior research (O'Connell, 1968, Thorson & Powell, 1993). Further, this study attempted to add more specificity to the constructs involved, with some limited success. First, we can guardedly discuss the possibility of a connection between an active humor stance, such as humor production and the lack of the most maladaptive death attitudes, fear of death and death avoidance. If we consider this active production of humor connection to exist, what then are the potential practical applications? A person with an active humor stance would appear to have some almost anti-biotic protection from the adoption of the most negative death attitudes. A psychological patient or client could

thus be encouraged to actively produce humor in and out of session as a protection against 'falling off the existential track'. A patient who is using humor as a way of understanding his existence would likely be more open to a discussion of death, or more specifically the finiteness of life as a driver for behavioral and philosophical changes, rather than as a condition to be feared or embraced. Such a patient might also be more open to discussions of freedom and the accompanying topic of responsibility since he or she would be buoyed against lapsing into a maladaptive death stance when confronted with the anxiety produced by the exploration of our life choices and subsequent consequences. Because humor is an inherently social act this patient might also benefit from the positive socializing influences of humor production thus allowing a reduction of symptoms brought on by existential isolation. This same humor production might also allow for a closer therapist/patient relationship thus further lessening the isolational impacts. Finally, by using humor to make sense of the world and the patient's place in it, meaninglessness and its accompanying anxiety could be considerably reduced. Perhaps most importantly, the active production of humor might give the patient the courage and ability to explore a variety of issues related to existence and to process the findings at a deeper and more profound level. Conversely, while there is no evidence in this study to indicate an association between passive humor appreciation and a maladaptive death attitude, it is possible that a patient low in humor production could benefit by increasing this humor style. Patients who are encouraged to view their maladaptive death attitude through a humorous eye might reap the potential benefits of their actively humorous counterparts. Finally, if we except the data as given, then we have an indication that not only is laughter appropriate in the therapy room but may also be beneficial to the patient.

In this study we have replicated the findings of others, most notably Thorson and Powell (1993) who discovered a small but existing connection between sense of humor and death attitudes. This study adds to the stability of their findings. If the connection between the variables is small or nonexistent then limited research resources might better be spent in the pursuit of other information. To explore the sense of humor issues it might be beneficial to further hone the dimensions based on a specific psychological theory. Questions on death attitudes and humor might better be explored in conjunction with specific situational types of humor, black humor or irony, to list two examples. It is also clear from the dearth of literature on the subject that more scientific rigor should be expended on the exploration and scientific validation of existential theory.

If future related research is to be done it should be approached with the following caveats. The results presented here and subsequent conclusions are based on a study with a variety of limitations and which found only small, potentially specious correlations. Based on those limitations and the tentative conclusions drawn, there are two key directions for subsequent research. All future studies should address the limitations of this study including the production of instruments with more accurate and precise measuring abilities, the further exploration of existentialism and other theories and their impact on death and humor issues, and the use of a more representative sample so that results could be easier to generalize. Drawing from the current study, it would seem prudent to design an instrument that looks solely at active and passive stances towards sense of humor, more specifically, an instrument which can delineate between those high and low in the production of humor and that can rate the magnitude of humor production. A second instrument should be developed that examines the active/passive question as related to death attitudes and can rate the magnitude of the 'activeness' or 'passiveness' of the individual in question. Next, specific theoretical predictions should be made based on a variety of current psychological schools of thought. A way to measure potential gender differences and cultural impacts should also be included. The sample should include persons in all stages of the life span and should be balanced for gender, culture and other variables of interest. The results from this study might better describe the death/humor link, if such a link exists, and would also allow for a greater number of possible theoretical explanations for the gathered results.

A second and perhaps less scientifically solid approach would be to gather data from those we know to be high on the humor production scale, namely, professional humorous entertainers such as comedians/comediennes, humorists, etc. By examining the death attitudes of such active humor producers we might better understand whether the active humor style does indeed 'protect' these individuals from a less functional death stance. Again, theory driven instruments should be used to define functional versus non-functional death stances. Finally, the study of terminally ill clowns might lend itself well to a qualitative approach, plus the researchers would get to go to the circus!

Conclusions

The present study found a small but significant relationship between sense of humor and death attitudes. We can cautiously conclude that the most active humor style was associated with a lack of maladaptive death attitudes, though the connection was small in magnitude. Expected relationships between overall sense of humor and existentially healthy death attitudes did not materialize. New directions for research are indicated including the role of active versus passive humor modes and their relationships to death attitudes. More precise definition of the elements of humor, including a delineation of active and passive modes might lead to a more concrete understanding of the connection between death attitudes and sense of humor.

References

- Abdel-Khalek, A. M. (1986). Death anxiety in Egyptian samples. *Personality and Individual Differences*, 7(4), pp.479-483.
- Adams, E. R. & McGuire, F. A. (1986). Is laughter the best medicine? A study of the effects of humor on perceived pain and affect. *Activities, Adaptation and Aging*, 8(3-4), pp.157-175.
- Attardo, S. (1992). Violation of conversational maxims and cooperation: the case of jokes. *Journal of Pragmatics*, 19, pp. 537-558.
- Bea, J. & Sicart, J. (1989). Separation anxieties and death anxieties. *Revista Catalana de Psicoanalisi*, 6(1), pp.11-28.
- Bloomfield, I. (1980). Humour in psychotherapy and analysis. *International Journal of Social Psychiatry*, 26(2), pp.135-141.
- Carroll, J. L. & Schmidt, J. L. (1992). Correlation between humorous coping style and health. *Psychological Reports*, 70(2), pp. 402.
- Chambers, W. V., Miller, D., Mueller, M., (1992). Validity of the threat index. *Psychological Reports*, 71, pp. 488-490.
- Dattel, R. A., & Neimeyer, R. A. (1990). Sex differences in death anxiety: testing the emotional expressiveness hypothesis. *Death Studies*, 14, pp. 1-11.
- Dean, R. A. (1997). Humor and laughter in palliative care. *Journal of Palliative Care*, 13 (1), pp.34-39
- Deaner, S. L., & McConatha, J. T. (1993). The relation of humor to depression and personality. *Psychological Reports*, 72, pp. 755-763.
- Dews, S., Kaplan, J., & Winner E. (1995). Why not say it directly? the social functions of irony. *Discourse*

Processes, 19, pp. 347-367.

Dienstbier, R. A. (1995). The impact of humor on energy, tension, task choices, and attributions: exploring hypotheses from toughness theory. *Motivation and Emotion*, 19 (4) , pp. 255-267.

Ebersole, P. & Persi, R. (1992). The short index of self actualization and death anxiety. *The Journal of Psychology*, 12, pp. 359-360.

Erdman, L. (1993). Laughter therapy for patients with cancer. *Journal of Psychosocial Oncology*, 11(4), pp.55-67.

Feingold, A., & Mazzella R. (1993). Preliminary validation of a multidimensional model of wittiness. *Journal of Personality*, 61 (3), pp. 439-456.

Firestone, R. W. (1993). Individual defenses against death anxiety. *Death Studies*, 17, pp. 497-515.

Frankl, V. (1962). *Man's Search For Meaning*. Washington D.C: Washington Square

Frazier, P. H. & Foss-Goodman, D. (1988-1989). Death anxiety and personality: are they truly related *Omega: Journal of Death and Dying*, 19(3), pp. 265-274.

Frecknall, P. (1994). Good humor: a qualitative study of the uses of humor in everyday life. *Psychology, a Journal of Human Behavior*, 31 (1), pp. 12-20.

Fromm, E. (1941). *Escape From Freedom*. New York: Holt, Rinehart & Winston

Fry, W. F. (1994). The biology of humor. *International Journal of Humor Research*, 7(2), pp.111-126.

Gelkopf, M., Sigal, M., Kramer, R. (1994). Therapeutic use of humor to improve social support in an institutionalized schizophrenic inpatient community. *Journal of Social Psychology*, 134(2), pp.175-182.

Gesser, G., Wong, P. T. & Reker, G. T. (1987-1988). Death attitudes across the life span : the development

- and validation of the death attitude profile (DAP). *Omega: Journal of Death and Dying*, 18(2), pp. 113-128.
- Hampes, W. P. (1994). Relation between intimacy and the multidimensional sense of humor scale. *Psychological Reports*, 74, pp. 1360-1362.
- Hayslip, B. & Stewart-Bussey, D. (1986-1987). Locus of control: levels of death anxiety relationships. *Omega: Journal of Death and Dying*, 17(1), pp.41-50.
- Heidegger, M. (1962). *Being and Time*. New York: Harper and Row
- Hillson, T. R., & Martin, R. A. (1994). What's so funny about that?: the domains-interaction approach as a model of incongruity and resolution in humor. *Motivation and Emotion*, 18 (1), pp. 1-29.
- Hobden, K. L., & Olsen, J. M. (1994). From jest to antipathy: disparagement humor as a source of dissonance-motivated attitude change. *Basic and Applied Social Psychology*, 15 (3), pp. 239-249.
- Kaufmann, W. (ed.) (1992). *Basic Writings of Nietzsche*. New York: Modern Library Series
- Kelly, M. D., & Corriveau, D. P. (1985). The Corriveau - Kelly Death Anxiety Scale. *Omega*, 31 (4), pp.311-315.
- Khanna, N., Khanna, R. & Sharma, R. G. (1988). A study on death anxiety. *Journal of Personality and Clinical Studies*, 4(1), pp.47-51.
- Korotkov, D. (1990). An exploratory factor analysis of the sense of humour personality construct: a pilot project. *Person. Individ. Diff.* 12 (5) , pp. 395-397.
- Kuiper, N. A., Martin, R.A., & Dance, K.A. (1992). Sense of humor and enhanced quality of life. *Person. Individ. Diff.* 13 (12) , pp. 1272-1283.
- Kuiper, N. A., & Martin, R. A. (1993). Coping humor, stress, and cognitive appraisals. *Canadian Journal*

- of Behavioural Science*, 25 (1), pp. 81-96.
- Kuiper, N. A., & Martin, R. A. (1998). Laughter and stress in daily life: relation to positive and negative affect. *Motivation and Emotion*, 22 (2), pp.133-153
- Kuiper, N. A., McKenzie, S. D., & Belanger, K. A. (1995). Cognitive appraisals and individual differences in sense of humor: motivational and affective implications. *Person. Individ. Diff.*, 19 (3), pp. 359-372.
- Kumar, G. M.& Nirmala, S. (1987). A study of death anxiety among heart attack patients. *Indian Psychological Review*, 32(1), pp.29-34.
- Lefcourt, H.M., Davidson, K., Shepherd, R., Phillips, M. (1997). Who likes "Far Side" humor *Humor: International Journal of Humor Research*, 10 (4), pp.439-452.
- Lefcourt, H. M. (1995). Organ donation, authoritarianism, and perspective-taking humor. *Journal of Research in Personality*, 29, pp. 121-138.
- Lefcourt, M. H., Davidson, K., Shepherd, R., Phillips, M., Prkachin, K., & Mills, D. (1995). Perspective-taking humor: accounting for stress moderation. *Journal of Social and Clinical Psychology*. 14 (4) , pp. 373-391.
- Lester, D., & Templer, D. (1993). Death anxiety scales: a dialogue. *Omega*, 26 (4), pp. 239-253.
- Liu, F. (1995). Humor as violations of the reality principle. *Humor*, 8 (2), pp. 177-190.
- Lusterman, D. D. (1992). Humor as metaphor. *Psychotherapy in Private Practice*, 10(1-2), pp.167-172.
- Mager, M., & Cabe, P. A. (1990). Effect of death anxiety on perception of death related humor. *Psychological Reports*, 66, pp.1311-1314.
- Manaster, G., (1977). *Adolescent Development and the Life Tasks*. Boston: Allyn and Bacon, Inc.
- Mannell, R. C., McMahon, L. (1982). Humor as play: its relationship to psychological well-being during

the course of a day. *Leisure Sciences*, 5(2), pp.143-155.

Martin, D. (1975). An existential approach to death. *Journal of Thanatology*, 3, pp.105-111.

Maqbool, S. (1991). Influence of health related variables on death anxiety among drug addicts. *Journal of Personality and Clinical Studies*, 7(1), pp. 31-36.

McBrien, R. J. (1993). Humor as encouragement in couples counseling. *Individual Psychology: Journal of Adlerian Theory, Research and Practice*, 49(3-4), pp.419-427.

Meshot, M. M., & Leitner, L. M. (1995). Death threat with young adults who have lost a parent to death. *Death Studies*, 19, pp. 571-582.

Middleton, W. C. (1936). Some reactions toward death among college students. *Journal of Abnormal Social Psychology*, 31, pp.165-173.

Mijuskovic, B. (1979). *Lonliness in Philosophy, Psychology and Literature*. The Netherlands: Van Gorcum

Miller, H. R., Davis, S. F. & Hayes, K. M. (1993). Examining relations between interpersonal flexibility, self-esteem, and death anxiety. *Bulletin of the Psychometric Society*, 31(5), pp.449-450.

Moore, M. K. & Neimeyer, R. A. (1991). A confirmatory factor analysis of the threat index. *Journal of Personality and Social Psychology*, 60, pp. 122-129.

Moran, C. C. (1996). Short-term mood change, perceived funniness, and the effects of humor stimuli. *Behavioral Medicine*, 20, pp. 32-38.

Morreall, J. (1989). Enjoying incongruity. *Humor*, 2 (1), pp. 1-18.

Neimeyer, R. A. & Moore, M. K. (1989). Assessing personal meanings of death: empirical refinements in the threat index. *Death Studies*, 13, pp. 227-245.

Neimeyer, R. A., & Moore, M. K. (1989). Assessing personal meanings of death: empirical refinements in

the threat index. *Death Studies*, 13, (pp. 227-245).

Neimeyer, R. A. (Ed.) (1994), *Death Anxiety Handbook: Research, instrumentation, and application*.

Series in death education, aging, and health care. Washington, DC: Taylor & Francis

O'Connell, W. (1968), Humor and death. *Psychological Reports*, 22, pp. 391-402

Overholser, J. C. (1991). Sense of humor when coping with life stress. *Person. Individ. Diff.* 13 (7), pp.799-804.

Papadatou, D. & Papadatos, C. (ed.) (1991). *Children and Death*. New York: Hemisphere Publishing Corporation

Parsuram, A. & Sharma, M. (1992). Functional relevance of belief in life after death. *Journal of Personality and Clinical Studies*. 8(1-2), pp. 97-100.

Patterson, K. S., Gates, L. J., & Faulkender, P. J. (1987). Assessment of death attitudes: an empirical approach. *The Journal of Psychology*, 121 (5), 475-479.

Pierce, R. A. (1985). Use and abuse of laughter in psychotherapy. *Psychotherapy in private practice*, 3(4), pp.67-73.

Prado, C. G. (1995). Why analysis of humor seems funny. *Humor*, 8 (2), pp. 155-165.

Prerost, F. J. (1993). A strategy to enhance humor production among elderly persons: assisting in the management of stress. *Activities, Adaptation and Aging*, 17(4), pp.17-24.

Prerost, F. J. (1995). Humor preferences among angered males and females associations with humor content and sexual desire. *Psychological Reports*, 77, pp. 227-234.

Quinn, P.K., & Reznikoff, M. (1985). The relationship between death anxiety and the subjective experience of time in the elderly. *Int'l. J. Aging and Human Development*, 21 (3), pp. 197-211.

- Rasmussen, C. A., & Brems, C. (1996). The relationship of death anxiety with age and psychosocial maturity. *The Journal of Psychology*, 130 (2), pp. 141-144.
- Richman, J. (1995). The lifesaving function of humor with the depressed and suicidal elderly. *Gerontologist*, 35(2), pp.271-273.
- Robbins, R. A. (1990). Signing an organ donor card: psychological factors. *Death Studies*, 14(3), pp. 219-229.
- Ruch, W., & Lambert, D. (1993). Do extraverts 'like to laugh'? an analysis of the situational humor response questionnaire (SHRQ). *European Journal of Personality*, 7, pp. 211-220.
- Sartre, J. (1956). *Being and Nothingness*, trans. Hazel Barnes. New York: Philosophical Library.
- Schumaker, J. F., Warren, W. G., & Groth-Marnat, G. (1991). Death anxiety in Japan and Australia. *Journal of Social Psychology*, 131(4), pp. 511-518.
- Schumaker, J. F., Groth-Marnat, G., Dougherty, F. I. & Barwick, K. C. (1986). Death anxiety, mental health and length of incarceration in male felons. *Social Behavior and Personality*, 14(2), pp.177-181.
- Sinha, A. (1992). Effect of demographic variables on perceived threat of death. *Journal of Personality and Clinical Studies*, 8(1-2), pp.91-95.
- Staley, R., & Derks, P. (1995). Structural incongruity and humor appreciation. *Humor*, 8 (2), pp. 97-134.
- Stevenson, R., G. (Ed.) (1993). *Perspectives on life- threatening illness*. The Hayworth Press, Inc.
- Squier, H. T. (1995). Humor in the doctor patient relationship. *Family Systems Medicine*, 13(1), 101-107.
- Swain, H. L. (1979). Childhood views of death. *Death Education*, 2(4), 341-358
- Templer, D. I., Lavoie, M., Chalgujian, H. & Thomas-Dobson, S. (1990). The measurement of death depression. *Journal of Clinical Psychology*, 46 (6), pp. 834 - 838.

- Templer, D., Ruff, C., & Franks, C. (1971). Death Anxiety: Age, sex, and parental resemblance in diverse populations. *Developmental Psychology*, 4, 108.
- Tomer, A. & Eliason, G. (1996). Toward a comprehensive model of death anxiety. *Death Studies*, 20, pp. 343-365.
- Thorson, J. A. (1997). Variations in death anxiety related to college student's sex, major field of study, and certain personality traits. *Psychological Reports*, 40(3 pt. 1), pp. 857-858.
- Thorson, J., Powell, F., Sarmany-Shuller, I., Hampes, W. (1997). Psychological health and sense of humor. *Journal of Clinical Psychology*, 53 (6), pp.605-619.
- Thorson, J. & Powell, F. (1996). Women, aging, and sense of humor. *Humor: International Journal of Humor Research*, 9 (2), pp.169-186.
- Thorson, J.A. , & Powell, F. C. (1990). To laugh in the face of death: the games that lethal people play. *Omega*. 21 (3) , pp. 225-239.
- Thorson, J. A., & Powell, F. C. (1991). Measurement of sense of humor. *Psychological Reports*, 69, pp. 691-702.
- Thorson, J. A. & Powell, F. C. (1992). A revised death anxiety scale. *Death Studies*, 16, pp. 507-521.
- Thorson, J.A. . & Powell, F. C. (1993). Development and validation of a multidimensional sense of humor scale. *Journal of Clinical Psychology*, 49 (1) , pp. 13-23.
- Thorson, J.A., & Powell, F.C. (1993). Sense of humor and dimensions of personality. *Journal of Clinical Psychology*. 49 (6) , pp. 799-809.
- Thorson, J. A.(1993). Relationships of death anxiety and sense of humor. *Psychological Reports*, 72, 1364-1366.

- Thorson, J. A., Powell, F. C. (1994). Depression and sense of humor. *Psychological Reports*, 75, pp. 1473-1474.
- Thorson, J. A. (1985). A funny thing happended on the way to the morgue: some thoughts on humor and death, and a taxonomy of the humor associated with death. *Death Studies*, 9, pp.201-216.
- Toews, J., Martin, R. & Prosen, H. (1985). Death anxiety: the prelude to adolescence. *Adolescent Psychiatry*, 12, pp.134-144.
- Tomer, A. (1992). Death anxiety in adult life - theoretical perspectives. *Death Studies*, 16, pp. 475-506.
- Tramill, J. L. et al (1984). The relationship between the type A behavior pattern, fear of death, and manifest anxiety. *Bulletin of the Psychometric Society*, 22(1), pp.42-44.
- Trice, A. D. & Price-Greathouse, J. (1986). Joking under the drill: a validity study of the coping humor scale. *Journal of Social Behavior and Personality*, 1(2), pp. 265-266.
- Triplet, G., Cohen, D., Reimer, W., Rinaldi, S., Hill, C., Roshdieh, S., Stanczak, E. M., Siscoe, K., Templer, D. I. (1995). Death discomfort differential. *Omega*, 31 (4), pp. 295-304.
- Wass, H., Berardo, F. M., Neimeyer, R. A. (Eds.) (1988) *Dying: Facing the Facts (Second Edition)*, Washington: Hemisphere Publishing Corps.
- Weaver, J., & Zillmann, D. (1994). Effect of humor and tragedy on discomfort tolerance. *Perceptual and Motor Skills*, 78, pp. 632-634.
- Weisenberg, M., Tepper, I., & Schwarzwald, J. (1995). Humor as a cognitive technique for increasing pain tolerance. *Pain*, 63, pp. 207-212.
- White, W., & Handal, P. J. (1990). The relationship between death anxiety and mental health/distress. *Omega*, 22 (1), pp. 13-24.

Yoder, M. & Haude, R. (1995). Sense of humor and longevity: Older adults' self ratings compared with ratings for deceased siblings. *Psychological Reports*, 76 (3, Pt. 1), pp.945-946.

Zajdman, A. (1995). Humorous face-threatening acts: humor as strategy. *Journal of Pragmatics*, 23, pp. 325-339.

Zillmann, D., Rockwell, S., Sewitzer, K., & Sundar, S. (1993). Does humor facilitate coping with physical discomfort?. *Motivation and Emotion*, 17 (1), pp. 1-20.

TABLES

Table 1
Summary of Expected and Actual Results

Variable	Fear of Death	Death Avoidance	Neutral Acceptance	Approach Acceptance	Escape Acceptance
Humor Total	Expected neg. correlation, found non sig. correlation	Expected neg. correlation, found non sig. correlation			
Humor Prod./Social Uses	Expected neg. correlation, found non sig. correlation	Expected neg. correlation, found neg. correlation	Expected pos. correlation, found neg. correlation		
Coping/Adaptive Humor	Expected neg. correlation, found non sig. correlation	Expected neg. correlation, found non sig. correlation		Expected pos. correlation, found non sig. correlation	
Humor Appreciation	Expected neg. correlation, found non sig. correlation	Expected neg. correlation, found non sig. correlation			Expected pos. correlation, found non sig. correlation
Attitudes Toward Humor	Expected neg. correlation, found non sig. correlation	Expected neg. correlation, found non sig. correlation			

* denotes significant result in predicted direction

Table 2

Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Humor 1	274	28.861	7.257	7	40
Humor 2	274	19.985	5.062	5	29
Humor 3	274	13.982	2.304	3	16
Humor 4	274	10.259	2.072	0	12
Humor Total	274	73.088	12.688	28	96
Death 1	274	30.609	3.370	22	39
Death 2	274	18.011	2.478	12	28
Death 3	274	17.328	3.720	10	31
Death 4	274	41.164	3.359	26	50
Death 5	274	19.993	2.846	10	29

Humor 1 = Humor Production/ Social Uses

Humor 2 = Coping/ Adaptive

Humor 3 = Humor Appreciation

Humor 4 = Attitudes Toward Humor

Humor Total = Total Humor Score

Death 1 = Fear of Death

Death 2 = Death Avoidance

Death 3 = Neutral Acceptance

Death 4 = Approach Acceptance

Death 5 = Escape Acceptance

Table 3

Intercorrelations Between Variables

Variable	Death 1	Death 2	Death 3	Death 4	Death 5
Humor Total	0.094 <i>p</i> = .120	-0.105 <i>p</i> = .084			
Humor 1	0.100 <i>p</i> = .098	-0.140 <i>p</i> = .020	-0.144 <i>p</i> = .017		
Humor 2	0.041 <i>p</i> = .498	-0.032 <i>p</i> = .600		0.145 <i>p</i> = .016 Sig. Level = 0.008 as per Bonferroni Adjustment	
Humor 3	0.117 <i>p</i> = .052	-0.084 <i>p</i> = .166			0.066 <i>p</i> = .265 Sig. Level + 0.008 as per Bonferroni Adjustment
Humor 4	-0.005 <i>p</i> = .922	0.021 <i>p</i> = .011			

Sig. Level = 0.05, unless otherwise noted

* = statistical significance

Humor 1 = Humor Production/ Social Uses

Humor 2 = Coping/ Adaptive

Humor 3 = Humor Appreciation

Humor 4 = Attitudes Toward Humor

Death 1 = Fear of Death

Death 2 = Death Avoidance

Death 3 = Neutral Acceptance

Death 4 = Approach Acceptance

Death 5 = Escape Acceptance

Table 4

Stepwise Multiple Regression for Total Humor Score

Step	Variable Entered	Partial R Squared	Model R Squared	C (p)	F	Prob >F
1	Death 3	0.031	0.031	10.344	8.805	0.003
2	Death 4	0.025	0.057	5.000	7.290	0.007
3	Death 5	0.007	0.064	4.872	2.121	0.147

Death 1 = Neutral Acceptance

Death 2 = Approach Acceptance

Death 3 = Escape Acceptance

Table 5

Answer to: How many people close to you have died in the last year?

Number of Deaths	Percent
0	49.8
1	32.7
2	12.7
3	2
More than 3	2

Table 6

Answer to: How many people who were close to you have died in your lifetime?

Number of Deaths	Percent
0	7.4
1	11.8
2	21.6
3-5	46.1
More than 5	13.2

Table 7

Answer to: To what extent do you avoid funerals?

Avoidance level	Percent
Enjoy or find great comfort in funerals	2.4
Do not avoid funerals	56.1
Neutral about funerals	23.4
Attempt to avoid funerals	17.6
Refuse to attend funerals	.5

Table 8

Answer to question: *When you are dead, what do you want done with your body?*

Disposition of Remains	Percent
burial	63.9
cremation	13.7
don't care	19.5
other	2.9

Table 9

Answer to: What are your spiritual beliefs?

Religion	Percent
Atheist	2
Agnostic	3.9
Christian	83.4
Not sure	6.3
Other	4.4

APPENDICES

Appendix A

Consent**AGREEMENT TO PARTICIPATE****UNIVERSITY OF OKLAHOMA****NORMAN CAMPUS**

PROJECT: Sense of Humor and Death Attitudes

RESEARCHERS: Michael E. Loescher M. A. and Cal Stoltenberg Ph.D., Department of Educational Psychology, University of Oklahoma, 820 Van Fleet Oval, Norman, Oklahoma 73019. (405) 325-5974.

This study is designed to discover how our feelings about death are related to our sense of humor. If you decide to participate in this study, your involvement will take no more than one hour of your time. You will be asked to answer a variety of questions and will answer on a Scantron scoring sheet. There are no foreseeable risks or benefits from your participation. Your participation is completely voluntary and you will be free to refuse or stop at any time without penalty. If you are participating in this experiment to obtain course credit and decide to withdraw from participation you might not receive the course credit associated with the experiment. All information will be number coded and strictly confidential. Your identity will not be known and thus cannot be revealed. If you have further questions concerning your rights as a research participant, please call the Office of Research Administration at (405) 325-4757.

I have read the preceding paragraph and agree to participate in this study.

Signature of Participant

Date

Appendix B**Debrief****UNIVERSITY OF OKLAHOMA****NORMAN CAMPUS****DEBRIEF**

Thank you for your participation in this study. The researchers believe that there is a connection between our attitudes toward death and our sense of humor. Your participation will assist us in examining this connection. Results of this study will be available in the University of Oklahoma library dissertation section under the name of Michael E. Loescher. Results can also be obtained by contacting Michael E. Loescher M. A. or Cal Stoltenberg Ph.D., Department of Educational Psychology, University of Oklahoma, 820 Van Fleet Oval, Norman, Oklahoma 73019. (405) 325-5974.

Again, we appreciate your participation in this study.

Michael E. Loescher

Cal Stoltenberg Ph.D.

Appendix C**Demographic Questionnaire****TEST BOOKLET**

Thank you for your participation in this study. Please answer the following questions as honestly as possible. Use the pencil provided to completely fill in the oval corresponding to your answers on the Scantron sheet. Please make sure that you are filling in the circle that corresponds to the question on the test. Make all erasures cleanly. Please ask the researchers if you have any questions.

1. What is your gender?

- a) male
- b) female

2. What is your ethnicity/culture/race

- a) Caucasian
- b) African -American
- c) Latino/Hispanic
- d) Native American
- e) Other

3. What is your academic level

- a) Freshman
- b) Sophomore
- c) Junior
- d) Senior
- e) Graduate

4. What is your GPA?

- a) 0.00-1.00
- b) 1.00-2.00
- c) 2.00-3.00
- d) 3.00-4.00

5. Have you signed an organ donation form or indicated on your drivers license that you would donate your organs upon your death?

- a) yes
- b) no

6. How willing would you be to donate your organs in the event of your death

- a) Very willing
- b) Willing
- c) Unsure
- d) Probably not willing
- e) Would not donate

7. How many people who were close to you have died in the last year

- a) 0
- b) 1
- c) 2
- d) 3
- e) more than three

8. How many people who were close to you have died in your lifetime

- a) 0
- b) 1
- c) 2
- d) 3-5
- e) more than 5

9. To what extent do you avoid funerals?

- a) Enjoy or find great comfort in funerals
- b) Do not avoid funerals
- c) Neutral about funerals
- d) Attempt to avoid funerals
- e) Refuse to attend funerals

10. When you are dead, what do you want done with your body?'

- a) burial
- b) cremation
- c) don't care
- d) other

11. What are your spiritual beliefs

- a) Atheist
- b) Agnostic
- c) Christian
- d) Not sure
- e) Other

12. How would you rate your sense of humor?

- a) Far above average**
- b) Above average**
- c) Average**
- d) Below average**
- e) Far below average**

13. How would your friends rate your sense of humor?

- a) Far above average**
- b) Above average**
- c) Average**
- d) Below average**
- e) Far below average**

Appendix D**Multidimensional Sense of Humor Scale**

Describe the magnitude of your agreement or disagreement with the following statements.

Note that there are five (5) possible answers to each question in this section

14. My clever sayings amuse others.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

15. I can say things in such a way as to make people laugh.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

16. Other people tell me that I say funny things.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

17. I am regarded as something of a wit by my friends.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

18. I'm confident that I can make other people laugh.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

19. People look to me to say amusing things.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

20. Sometimes I think up jokes or funny stories.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

21. I use humor to entertain my friends.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

22. I can often crack people up with the things I say.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

23. I can ease a tense situation by saying something funny.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

24. Uses of wit or humor help me master difficult situations.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

25. Coping by using humor is an elegant way of adapting.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

26. Humor helps me cope.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

27. Uses of humor put me at ease.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

28. Humor is a lousy coping mechanism.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

29. I can use wit to help adapt to many situations.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

30. Trying to master situations through uses of humor is really dumb.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

31. Calling somebody a "comedian" is a real insult.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

32. I dislike comics.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

33. People who tell jokes are a pain in the neck.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

34. Getting people to lighten up by joking around is useless.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

35. I like a good joke.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

36. I appreciate those who generate humor.

- a) Strongly disagree**
- b) Mildly disagree**
- c) Neutral**
- d) Mildly agree**
- e) Strongly agree**

37. I'm uncomfortable when everyone is cracking jokes.

- a) Strongly disagree
- b) Mildly disagree
- c) Neutral
- d) Mildly agree
- e) Strongly agree

Appendix E**Death Attitude Profile Revised****Instructions for this section:**

This questionnaire contains a number of statements related to different attitudes toward death. Read each statement carefully, and then indicate the extent to which you agree or disagree. For example, an item might read: "Death is a friend." Indicate how well you agree or disagree by filling in the corresponding oval on the Scantron page. Try to use the Undecided category sparingly. It is important that you work through the statements and answer each one. Many of the statements will seem alike, but all are necessary to show slight differences in attitudes.

Note that there are seven (7) possible answers to each question in this section

38. Death is no doubt a grim experience.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

39. The prospect of my own death arouses anxiety in me.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

40. I avoid death thoughts at all costs.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

41. I believe that I will be in heaven after I die.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

42. Death will bring an end to all my troubles.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

43. Death should be viewed as a natural, undeniable, and unavoidable event.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

44. I am disturbed by the finality of death.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

45. Death is an entrance to a place of ultimate satisfaction.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

46. Death provides an escape from this terrible world.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

47. Whenever the thought of death enters my mind, I try to push it away.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

48. Death is deliverance from pain and suffering.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

49. I always try not to think about death.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

50. I believe that heaven will be a much better place than this world.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

51. Death is a natural aspect of life.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

52. Death is a union with God and eternal bliss.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

53. Death brings a promise of a new and glorious life.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

54. I would neither fear death nor welcome it.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

55. I have an intense fear of death.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

56. I avoid thinking about death all together.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

57. The subject of life after death troubles me greatly.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

58. The fact that death will mean the end of everything as I know it frightens me.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

59. I look forward to a reunion with my loved ones after I die.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

60. I view death as a relief from earthly suffering.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

61. Death is simply a part of the process of life.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

62. I see death as a passage to an eternal and blessed place.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

63. I try to have nothing to do with the subject of death.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

64. Death offers a wonderful release of the soul.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

65. One thing that gives me comfort in facing death is my belief in the afterlife.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

66. I see death as a relief from the burden of this life.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

67. Death is neither good nor bad.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

68. I look forward to life after death.

- a) Strongly disagree
- b) Disagree
- c) Moderately disagree
- d) Undecided
- e) Moderately agree
- f) Agree
- g) Strongly agree

69. The uncertainty of not knowing what happens after death worries me.

- a) Strongly disagree**
- b) Disagree**
- c) Moderately disagree**
- d) Undecided**
- e) Moderately agree**
- f) Agree**
- g) Strongly agree**

Thank you for your participation. Please turn in all materials to the researcher and collect a debriefing sheet.



The University of Oklahoma

OFFICE OF RESEARCH ADMINISTRATION

January 8, 1999

Mr. Michael E. Loescher
121 Willow Drive
Hutto, TX 78634

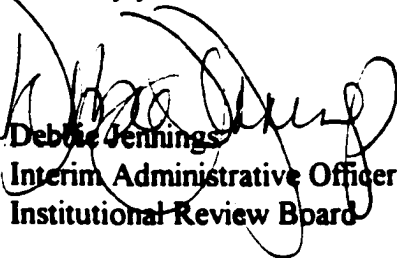
Dear Mr. Loescher:

Your research proposal, "An Investigation of Sense of Humor and Death Attitudes," has been reviewed by Dr. E. Laurette Taylor, Chair of the Institutional Review Board, and found to be exempt from the requirements for full board review and approval under the regulations of the University of Oklahoma-Norman Campus Policies and Procedures for the Protection of Human Subjects in Research Activities.

Should you wish to deviate from the described protocol, you must notify me and obtain prior approval from the Board for the changes. If the research is to extend beyond 12 months, you must contact this office, in writing, noting any changes or revisions in the protocol and/or informed consent form, and request an extension of this ruling.

If you have any questions, please contact me.

Sincerely yours,



Debbie Jennings
Interim Administrative Officer
Institutional Review Board

DJ:pw
FY99-132

cc: Dr. E. Laurette Taylor, Chair, IRB
Dr. Cal Stoltenberg, Counseling Psychology