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THE EFFECT OF TRAIT DEATH ANXIETY ON JOB INVOLVEMENT, ORGANIZATIONAL CITIZENSHIP BEHAVIOR,
AND TURNOVER INTENTIONS IN LOW MORTALITY CUE JOBS

For the degree of Master of Science

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THE EFFECT OF TRAIT DEATH ANXIETY ON JOB INVOLVEMENT,
ORGANIZATIONAL CITIZENSHIP BEHAVIOR, AND TURNOVER INTENTIONS
IN LOW MORTALITY CUE JOBS

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TABLE OF CONTENTS

	Page
ABSTRACT.....	v
CHAPTER 1. INTRODUCTION.....	1
1.1 Defining Death Anxiety.....	3
1.2 Death Anxiety in the Workplace.....	5
1.3 Terror Management Theory.....	7
1.4 Death Anxiety and Job Involvement.....	11
1.5 Need for Achievement.....	13
CHAPTER 2. METHOD.....	16
2.1 Participants and Procedure.....	16
2.2 Measures.....	19
2.3 Analyses.....	22
CHAPTER 3. RESULTS.....	24
3.1 Data Cleaning and Organization.....	24
3.2 Descriptive Statistics.....	25
3.3 Regression.....	26
CHAPTER 4. DISCUSSION.....	28

	Page
4.1 Practical Implications.....	33
4.2 Theoretical Implications	34
4.3 Limitations	35
4.4 Future Directions	37
REFERENCES	39
TABLES	48
FIGURES.....	52
APPENDIX.....	54

ABSTRACT

Stafford, Joshua J. M.S., Purdue University, May 2016. The Effect of Trait Death Anxiety on Job Involvement, Organizational Citizenship Behavior, and Turnover Intentions in Low Mortality Cue Jobs. Major Professor: Jane Williams.

Death anxiety is a concept that has received little empirical attention in the organizational psychology literature. Research has found that trait death anxiety is associated with burnout, and lower work engagement in jobs with high mortality cues. However, most people do not work in jobs where they are constantly reminded of death. The present study sought to examine the effects of trait death anxiety on employees working in low-mortality cue jobs. Using terror management theory as a foundation, I predicted that those higher in trait death anxiety would be more involved in their jobs, resulting in higher levels of organizational citizenship behavior and lower turnover intentions. In addition, I hypothesized that the relationship between trait death anxiety and job involvement will be moderated by need for achievement. This model was tested using a two time-point study, utilizing participants from Amazon's Mechanical Turk. Results revealed a positive relationship between death anxiety and job involvement, and a negative relationship between death anxiety and turnover intentions mediated by job involvement. However, no significant relationships were found in regards to organizational citizenship behavior or need for achievement. Implications, limitations, and future directions are discussed.

CHAPTER 1. INTRODUCTION

The American culture is obsessed with death. Indeed, if entertainment (e.g., books, movies, television) is any indication, Americans are fascinated with serial killers, murder mysteries, the undead, and visions of the afterlife; it is rare for a day to pass without an environmental trigger that could remind a person of death. Research has shown that humans are so sensitive to death-related cues that the simple presence of a funeral home can have effects on people's attitudes toward charity and the estimates of consensus for their values (Jonas et al., 2002; Pyszczynski et al., 1996). With people being constantly reminded of their mortality, it is important for psychologists to examine how *trait death anxiety* can impact people's lives. Particularly, given that a large portion of people's lives are spent in the workplace, and because work can have such meaning to individuals, it is very important to understand how trait death anxiety can impact a person's reactions to various aspects of the workplace.

Despite the omnipresent nature of death, little research has been conducted on the effects of death anxiety in the context of the workplace. This may be due to 1) lack of consensus regarding definition of death anxiety (Nyatanga & de Vocht, 2006), and 2) lack of a clear direction for organizational researchers (Stein & Cropanzano, 2011). Recently, however, researchers have begun to realize the importance of death anxiety as a construct in the organizational sciences (Grant & Wade-Benzoni, 2009; Stein &

Cropanzano, 2011). Using these calls of research for guidance, the newest research has examined the role of death anxiety in high mortality reminder jobs (i.e., jobs where people are frequently reminded of death, such as nursing and firefighting). These studies have shown that trait death anxiety is positively related to individually- and organizationally-important outcomes, including absenteeism, post-traumatic stress, and burnout (Sliter, Sinclair, Yuan, & Mohr, 2014). However, little work had examined the role of death anxiety in jobs with low mortality cues. Low mortality cues refer to jobs that do not explicitly expose workers to any death related cues on a regular basis. The present study focuses on work that takes place in an office setting.

The goal of the present study was to examine the effects of trait death anxiety on organizational citizenship behavior (OCB) and turnover intentions on jobs with low mortality cues. Specifically, based on terror management theory (TMT), I hypothesized a model where trait death anxiety would lead to higher levels of job involvement, which in turn would result in higher levels of OCB and reduced turnover intentions. In addition, to better explain personal factors that might impact the death anxiety-job involvement relationship, the current study examined the role of need for achievement in moderating the relationship between death anxiety and job involvement. In order to accomplish these goals, the present study was conducted as a prospective, two time point survey design utilizing participants from Amazon's Mechanical Turk.

In the space below, I will first address the definition of death anxiety and previous research that has been conducted. Next, I will examine death anxiety in relation to TMT. I will then put forth a model for death anxiety in low mortality cue jobs and review

the results of the present study. Lastly, I will discuss the findings, including implications, limitations, and directions for future research.

1.1 Defining Death Anxiety

Although there has been a fair amount of work done on death anxiety, there has been little consensus on a formal definition. Nyatanga and de Vocht (2006) attempted to address this problem. They begin by noting that a distinction must be made between fear and anxiety. Anxiety is prompted by uncertainty, whereas fear is a result of immediate danger. Additionally, they distinguish between ontological anxiety and theological anxiety. Ontological anxiety refers to anxiety brought on by a threat capable of making people extinct. Examples of this include a generalized feeling of total threat one's being and anxiety that is innately inside of people with no identifiable cause (Nyatanga & de Vocht, 2006). Theological anxiety refers to anxiety about judgment or punishment (e.g., hell) for those holding a belief in life after death (Nyatanga & de Vocht, 2006). Previous attempts to define death anxiety had suggested identifying its dimensions such as denial and avoidance of death, fear of death of self and others, and a reluctance to interact with dying people (Thorson & Powell, 1988). However, Nyatanga and de Vocht (2006) felt that this fails at addressing what death anxiety actually is, as these dimensions lack distinguishing characteristics, such as whether it is trait or a state. Others had defined it as the unpleasant emotions associated with contemplating one's own death (Lonetto & Templer, 1986). However, Nyatanga and de Vocht (2006) found this definition of death anxiety to be too restrictive, as it fails to include death of others as means of provoking death anxiety. As a result, drawing on previous work, Nyatanga and de Vocht (2006)

define death anxiety as, “An unpleasant emotion of multidimensional concerns that is of existential origin provoked on contemplation of death of self or others (p. 413).” Put simply, Nyatanga and de Vocht (2006) define death anxiety is a negative emotion regarding death or dying that is brought about thinking about one’s own death or the death of others.

Although, Nyatanga and de Vocht’s (2006) definition provides a solid basis for the conceptualization of death anxiety, it is necessary disentangle death anxiety from other, related constructs. One such construct is general anxiety. General anxiety is defined as general worrying, apprehension and nervousness (American Psychiatric Association, 2013). A study by Pollak (1979) found that two measures of death anxiety, the Templer Death Anxiety Scale (Templer, 1970) and the Collett-Lester Fear of Death Scale (Collett & Lester, 1969), were found to moderately correlate with several measures of general anxiety, including the Welsh Anxiety Index (Welsh, 1952) and the Taylor Manifest Anxiety Scale (Taylor, 1953). However, these correlations suggest only 13-20% of common variance between death anxiety and general anxiety, not high enough to regard them as identical (Pollak, 1979). Rather, death anxiety and generalized anxiety are two separate but related constructs (Pollak, 1979). More recent research has replicated these findings (Brown, 2011; Cella & Tross, 1987)

Another noted difference between death anxiety and general anxiety is that death anxiety is thought to be more stable over time than general anxiety (Kaye & Loscalzo, 1998; Rasmussen, Templer, Kenkel, & Cannon, 1998). Rasmussen and colleagues (1998) compared the relationship to a river, where general anxiety reflects the water on the surface, which flows more rapidly and is subject to more internal and external influences.

Death anxiety, on the other hand, is seen as the deeper water, which is less affected by factors at the surface. This idea was empirically tested by Kaye and Loscalzo (1998), who found that death anxiety of medical students remained stable over a 4-year span, regardless of whether the students took a death and dying education course in their first year, which was designed to increase positive attitudes towards dying patients and their families and reduce fear of death. This study demonstrates the stability of death anxiety as medical students are frequently confronted with reminders of death. Given this past research, death anxiety was conceptualized as a trait in the present study

1.2 Death Anxiety in the Workplace

Despite the moderate body of research on death anxiety, the effects of death anxiety in the workplace have remained relatively unexplored. Recently, organizational researchers have proposed that death anxiety could have important implications for employees. For instance, Grant and Wade-Benzoni (2009) suggested that death anxiety—as an emotion instead of a trait—could have substantial effects on people’s work performance, if they worked in jobs with high mortality cues. Mortality cues, also known as mortality salience, can be defined as any external stimuli that reminds someone of death or their own mortality (Greenberg, Pyszczynski, & Solomon, 1986). These can range from the physical endangerment of self or others to something as simple as walking past a cemetery.

Sliter and colleagues (2014) sought to empirically assess the effects of trait death anxiety in jobs with high mortality cues. Drawing on the conservation of resources model, Sliter and colleagues (2014) predicted that higher levels of trait death anxiety would be

associated with a range of negative occupational health outcomes in both nurses and firefighters. The conservation of resources model is a theory of stress, which states that people have a limited amount of resources (object resources, conditions, personal characteristics, and energies) and that loss of these resources results in strain (Hobfoll, 1989). In the context of death anxiety research, Sliter and colleagues (2014) posited that life itself is one of the most strongly defended resources, and that individuals adopt a defensive strategy when confronted with threats to life. Additionally, they predicted that these defensive reactions would lead to burnout, absenteeism and disengagement. In two studies, they found that death anxiety was associated with higher rates of burnout and lower levels of work engagement in nurses and firefighters. In addition, burnout served as a mediator between death anxiety and absenteeism in firefighters. Lastly, death anxiety was shown to moderate the relationship between mortality cues and burnout in firefighters such that firefighters who were high in trait death anxiety experienced higher rates of burnouts when mortality cues were high, whereas the rate of burnout was unchanged in firefighters low in trait death anxiety across situations with low and high mortality cues. That is, firefighters who are high in trait DA were more susceptible to the negative effects of mortality cues.

The Sliter and colleagues (2014) study suggests that death anxiety can have profound effects on people working in jobs with high mortality cues. However, most people do not work in jobs where they are constantly reminded of death. The present study sought to bridge this gap by examining the effects of death anxiety in jobs with low mortality cues. Grant and Wade (2009) assert that death anxiety may have effects in

occupations with no overt mortality cues. This was echoed by Sliter et al. (2014), who noted that this is an area where future research is necessary.

Low mortality cue jobs are simply jobs in which the day-to-day tasks do not elicit thoughts of one's mortality. The present study focused on people working in office settings, specifically, in accounting, administration/clerical, banking/finance, consulting, human resources, and information technology. In order to better understand the possible effects of death anxiety in low-mortality cue jobs (e.g., office work), it is necessary to understand death anxiety as it relates to TMT.

1.3 Terror Management Theory

The basis of our natural anxiety towards death can be largely explained by TMT. TMT posits that human beings experience devastating existential anxiety due to awareness of their own mortality and eventual death (Greenberg et al., 1986). Furthermore, human beings construct cultural worldviews to act as a buffer against this anxiety (Greenberg et al., 1986). Cultural worldviews refer to a culture's way of conceptualizing reality and the physical world in ways that result in protection against existential threats (Greenberg et al., 1990). An example of a cultural worldview is religion, in which belief in a higher power helps people explain events in their lives. Cultural worldviews provide protection from anxiety in two ways. First, they provide a sense of meaning and order for events in our world. For example, those who hold a religious worldview may attribute negative events in their lives as being God's, or a higher power's, will. Second, cultural worldviews provide either literal or symbolic immortality (Greenberg et al., 1986). Symbolic immortality is achieved through death-

transcending contributions to the culture, such as discovery of an important scientific finding or contributing to an organization that will live on after a person dies. Literal immortality is achieved through religious means, such as adherence to a particular religion that promises an afterlife. However, there are two necessary components for the cultural anxiety buffer to be effective: 1) confidence that the ascribed worldview really does provide meaning, value and immortality, and 2) belief that one is living up to the standards denoted by that worldview (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). For instance, religion offers no solace to someone who does not follow the expected behaviors and guidelines for acceptance into the afterlife.

Constant reminders of suffering and death result in a need to continuously bolster the cultural anxiety buffer (Rosenblatt et al., 1989). One way this occurs is through social comparison with others to validate one's beliefs (Festinger, 1954). From here, TMT asserts that people exhibit positive feelings towards those who bolster their cultural worldviews and negative feelings to those who threaten them when mortality is made salient (Rosenblatt et al., 1989). This claim was supported in a lab study by Greenberg et al. (1990), who found that Christians gave more positive evaluations to fellow Christians and more negative evaluations to Jews when mortality was made salient. Additionally, mortality salience resulted in lower ratings for a dissimilar interaction partner by authoritarian subjects (Greenberg et al., 1990). Lastly, mortality salience resulted in more positive reactions to those who praised a culture and more negative reactions to those who criticized a culture (Greenberg et al., 1990).

In addition to more positive attitudes towards similar others and more negative attitudes of dissimilar others, cultural-anxiety buffers have been shown to have

behavioral effects. Rosenblatt, Greenberg, Solomon, Pyszczynski, and Lyon (1989) found that mortality salience leads to harsher punishments of those deemed to be morally reprehensible and larger rewards for those who uphold cultural values. They replicated these results using both court judges and students. Additionally, they found that the effect of mortality salience is not due to heightened physiological arousal but rather a subconscious defense of a cultural worldview (Rosenblatt et al., 1989).

A key aspect of TMT is the role of self-esteem. TMT posits that the purpose of self-esteem is to act a buffer from our existential anxiety by providing the perception that one's life has value and that one is a part of a meaningful universe (Solomon, Greenberg, & Pyszczynski, 1991). Indeed, self-esteem has been well researched in the TMT literature and is one proposed means of reducing the effects of mortality salience on worldview defense. In a study by Harmon-Jones et al. (1997), individuals high in self-esteem did not respond to mortality salience with increased worldview defense while individuals with moderate self-esteem did. Additionally, they found that high self-esteem facilitates suppression of death constructs following mortality salience. In sum, a loss of self-esteem resulting from a negative evaluation could be devastating to one's cultural anxiety buffer (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004) and those higher in death anxiety should be more motivated to maintain high levels of self-esteem and positive evaluations.

Self-esteem is also important during unconscious mortality salience. Pyszczynski, Greenberg, and Solomon (1999) presented a dual-processing model of defense, which posits that conscious threats are addressed using proximal defenses, and unconscious threats are addressed with distal defenses. Proximal defenses to conscious threats involve

the suppression of death thoughts or pushing the idea of death into the future. Distal defenses occur through maintenance of one's self-esteem and cultural worldviews. Pyszczynski and colleagues (1999) argued that the two systems work together so that distal defenses to death thoughts work until death thoughts reach the level of conscious processing, at which point proximal defenses take over. This work is crucial to death anxiety research as it affirms that overt mortality cues are not necessary for death anxiety reactions.

When framed in terms of death anxiety research, the dual processing model suggests that those higher in trait death anxiety will utilize more of both proximal and distal defenses to protect against conscious and unconscious death thoughts (Pyszczynski et al., 1999). Furthermore, the dual processing model can be used to make inferences about workplace behavior. For example, when proximal defenses against death thoughts are activated, people may be more motivated *to involve themselves in their job* as a means of suppression or distractions from death thoughts. Additionally, activation of distal defenses may also result in high levels of job involvement as a means of maintaining self-esteem and overall life meaning. Based on TMT, the current line of research sought to examine the mediating role of job involvement between death anxiety and positive work outcomes. Furthermore, I sought to determine whether need for achievement—an individual difference that refers to an individual's need for mastery and high standards—would change the strength of the relationship between death anxiety and job involvement, and ultimately influence whether there will be more positive distal outcomes of death anxiety. This model is presented in Figure 1. First, I will discuss job involvement, and how it relates to death anxiety, OCB, and turnover intentions. Then, I will address need

for achievement and how it could moderate the relationship between death anxiety and job involvement.

1.4 Death Anxiety and Job Involvement

Job involvement can be defined as the degree to which a person identifies psychologically with his or her work or the importance of work in a person's self-image (Lodahl & Kejnar, 1965). In other words, it is the degree to which job performance affects self-esteem (Lodahl & Kejnar, 1965). Death anxiety can be linked to job involvement in a number of ways. First, according to TMT, one component of the cultural anxiety buffer is maintenance of high levels of self-esteem, which can be achieved through job involvement. In addition, death-transcending contributions to a culture are one way that we shield our selves from our fear of death. Involvement in one's job is a way that people may attempt to contribute to a culture by contributing to organizational success. For example, employees may take pride in building a company or organization into something that will live on after they are gone. Lastly, according to TMT, I would expect people high in death anxiety to seek out social inclusion as a means of bolstering the cultural anxiety buffer (Greenberg et al., 1986). These three points suggest that those high in trait death anxiety would be more motivated to be highly involved in their job as a means of maintaining self-esteem and achieving these death transcending cultural contributions to an organization.

Research has shown that job involvement is strongly associated with a number of job attitudes such as job satisfaction (Moynihan & Pandey, 2007), and lower turnover intentions and organizational commitment (Hallberg & Schaufeli, 2011). Furthermore, a

study by Chughtai (2008) found a positive correlation between job involvement and job performance. In addition, he found that job involvement was associated with OCB and that organizational commitment partially mediated the relationship between job involvement and job performance (Chughtai, 2008). The present study focuses specifically on OCB and turnover intentions.

OCB refers to individual discretionary behaviors that promote effective functioning of the organization but are not directly rewarded by the formal reward system of the organization (Organ, 1988). These behaviors are outside of a person's basic job duties (Chughtai, 2008). An example of an OCB is an employee staying late to help a coworker finish a project or offering to show around a new employee. I expect that job involvement will be related to higher levels of OCB. This relationship has been previously demonstrated in the literature (Diefendorff et al., 2002). In addition, a study by Chiu and Tsai (2006) showed that job involvement could act as a mediator between job characteristics and OCB. Taken together, these two findings suggest that job involvement will be related to OCB.

Turnover intentions refer to an individual's desire to leave an organization. Work by Hallberg and Schaufeli (2011) found that job involvement was negatively related to turnover intentions. Additionally, a meta-analysis by Griffeth, Hom, and Gaertner (2000) supported the finding that turnover is negatively related to job satisfaction (Hom & Griffeth, 1995). Since job involvement is related to job satisfaction, it would follow that those who are highly involved in their jobs, will be more satisfied and less likely to intend to turnover. Based on the theoretical background presented above, I predict:

- Hypothesis 1: Death anxiety will be positively related to job involvement.

- Hypothesis 2: Job involvement will be positively related to OCB
- Hypothesis 3: Job involvement will be negatively related to turnover intentions.
- Hypothesis 4: The relationship between death anxiety and OCB will be mediated by job involvement.
- Hypothesis 5: The relationship between death anxiety and turnover intentions will be mediated by job involvement.

1.5 Need for Achievement

Although I anticipate a positive relationship between death anxiety and job involvement, I believe that this relationship can be strengthened by certain individual difference variables, specifically, *need for achievement*. Need for achievement refers to the experienced need of an individual to accomplish something important or operate with high standards (McClelland, Atkinson, Clark, & Lowell, 1976). For example, someone high in need for achievement may be very academically driven and place near the top of the class, whereas someone low in need for achievement may be more motivated to maintain close relationships and care less about academic performance.

Need for achievement has been related to a number of positive work outcomes such as being direct predictor of job involvement (Morris & Snyder, 1979). In addition, need for achievement has been shown to moderate the relationship between job involvement and job performance, such that the relationship between job involvement and job performance was stronger for those higher in need for achievement (Steers, 1975). Lastly, those high in need for achievement tend to take more challenging jobs and prefer situations where they receive clear feedback on performance (Steers & Spencer, 1977).

The beneficial effects of need for achievement may be due to the motivation to attain mastery and maintain high standards of operating as a means of maintaining self-esteem. This is in line with Covington's (1984) theory of self-worth, which states that performance in valued activities is directly tied to self-worth. It would follow that those who are high in need for achievement would value success at work and thus, be more involved in their jobs.

I expect that need for achievement will moderate the relationship between death anxiety and job involvement. Specifically, I would expect that people who are high in death anxiety and high in need for achievement would more likely to become involved in their job as a means of achieving mastery and high standards in the workplace. Achievement in the workplace would then result in higher levels of self-esteem and a bolstering of the cultural anxiety buffer. In this sense, those high in need for achievement are more likely to have their self-esteem tied to their achievement in the workplace than those who are low in need for achievement (Figure 2). Furthermore, those high in need for achievement are likely to be highly involved in their job as a means of achieving symbolic immortality through death transcending contributions to a culture. For example, someone high in need for achievement may take comfort in the knowing that their achievements and contributions to a company will live on and be remembered after they are gone.

Alternately, if someone were high in death anxiety but low in need for achievement, he/she might be less likely to involve themselves in work. Rather, these people may seek meaning and self-esteem in different life domains such as relationships. For example, someone low in need for achievement may seek to maintain their self-

esteem in a social group or religious community rather than being highly involved in their jobs.

Need for achievement fits within the present line of research as those high in need for achievement tend to be more involved in their jobs as a means of fulfilling that need (Jex & Britt, 2014). Building on the research above, I predict that need for achievement will moderate the relationship between death anxiety and job involvement, as those high in need for achievement will be more motivated to be involved in their jobs as a means of fulfilling that need. In addition, those high in need for achievement may use job involvement as a means of maintaining high levels of self-esteem. In sum, I predict that:

- Hypothesis 6: Need for achievement will moderate the relationship between death anxiety and job involvement, such that the relationship between death anxiety and job involvement will be stronger for those with a high need for achievement than those with low need for achievement.

CHAPTER 2. METHOD

2.1 Participants and Procedure

This study was conducted as a survey study utilizing a two time point design. Only participants who completed Time 1 of the study were allowed to complete Time 2. Participants were recruited from Amazon's Mechanical Turk (MTurk) website. A stipulation for participation in the study was that subjects must be employed in an office setting and been in the job for at least one year. In addition, subjects needed to work at least 30 hours per week and be employed in organizations in the United States. In order to gain access to the Time 1 survey, participants had to complete a qualification survey that addressed the stipulations above. In order to screen for individuals working in office settings, a drop down list of industries was provided and participants were accepted only if they indicated that they were currently employed in Accounting, Administration/Clerical, Banking/Finance, Information Technology, Consulting, or Human Resources. These industries were selected due to the office settings in which these industries generally operate. If participants indicated that they matched all criteria in the qualification survey, they were admitted into the Time 1 survey. Participants who completed Time 1 were then sent message through MTurk two weeks later inviting them to take Time 2 of the study.

It is important to note that the MTurk message system only allows for one message to be sent at a time. For Time 2, the survey itself was made available, and then individual messages were sent to Time 1 participants asking that they complete Time 2 of the study. However, due to budgetary constraints, not all Time 1 participants could complete Time 2. The Time 2 data collection was finished after individual messages had been sent to only 350 of the 565 Time 1 participants. This means, that although Time 2 was available to all participants who completed Time 1, not everyone who completed Time 1, received a message telling them that Time 2 was open and inviting them to take it. Given that the order of people who completed Time 1 was essentially random, I believe that the results were not impacted in any way by the fact that not all the Time 1 participants received individual messages.

565 participants completed Time 1 and 240 participants completed Time 2. There were two weeks between Time 1 and Time 2. Once data collection from both time points were completed, data from Time 1 and Time 2 were matched on MTurk ID and combined into one data file. Participants were compensated \$1.00 for their participation in Time 1 and \$2.00 for Time 2 of the study. The final sample of participants was 53% male, with an average age of 36.2 years ($SD = 11.0$). It was majority Caucasian (78%) and the average job tenure was 4.8 years. The most common industry was Information Technology (38%), followed by Administration/Clerical (26%) and Banking/Financial Services (17%). In general, I think that this sample is certainly more representative of the general population than college samples. In particular, the variance of age, location, and job type is higher than could be expected in college samples. The fact that Information Technology is the most common industry in the sample should not come as surprise

given the technological nature of the MTurk platform. Furthermore, industry choice should not matter assuming that all industries in the sample take place in office settings with low mortality cues. In sum, I do not believe that there are any characteristics of the sample that suggest that it is significantly different from the general population of interest.

MTurk is an online marketplace that allows people known as “requesters” to post any task that can be completed using a computer (Buhrmester, Kwang, & Gosling, 2011). These tasks are then completed by “workers” for compensation. MTurk boasts around 100,000 workers from over 100 countries, and is becoming an increasingly popular means of conducting psychology research (Berinsky, Huber, & Lenz, 2012; Buhrmester et al., 2011). Although there have been questions as to the quality of data that can be drawn from an MTurk sample, there has been much recent research demonstrating that MTurk participants may actually be superior to subject pool participants in a number of ways (Buhrmester et al., 2011; Hauser & Schwartz, 2015). Research by Hauser and Schwartz (2015) found that over three studies using online attention checks, MTurk participants were more attentive to instructions than collegiate participants. In addition, research has shown that MTurk participants are more diverse than college samples (Buhrmester et al., 2011). Lastly, a study by Buhrmester et al. (2011) found that realistic compensation rates do not affect data quality and that data collected from MTurk participants was at least as reliable as data collected from traditional samples.

In terms of best practice, there are a number of techniques that can be used to gather the high quality data. First, it is important to realize that MTurk workers earn more money for completing more tasks (Barger, Behrend, Sharek, & Sinar, 2011). This would suggest that they may be motivated to rush through studies. One way to reduce this effect

is to include some quality control items (Barger et al., 2011), such as Likert response items that prompt participants to select agree if they are paying attention. In addition, including a text box that allows subject to report confusing items or instruction is another way to check for potential sources of poor data quality (Mason & Suri, 2012).

Another common concern with MTurk studies and survey research in general is common method bias. Common method bias occurs when method factors bias the estimates of validity, construct reliability, and the relationship between two constructs (Podsakoff, MacKenzie, & Podsakoff, 2012). The present study sought to mitigate the effects of common method bias by utilizing a two time point design, which served to create a temporal separation between the independent variables and the outcome variables (Podsakoff et al., 2012).

2.2 Measures

Trait death anxiety (Time 1). Death anxiety was measured using a shortened version of the Revised Death Anxiety Scale (Sliter et al., 2014; Thorson & Powell, 1992). The scale was shorted from its original 25-item form by Sliter et al., (2014), and contains nine items that were scored on a 5-point Likert scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). The mean score of all items was taken as a composite score. The items addressed three different facets of death anxiety: anxiety over life after death and decomposition (“*I am worried about what happens to us after we die*”), anxiety over fear of pain and helplessness (“*I am not worried about ever being helpless*”), and anxiety over not being (“*The idea of never thinking again after I die frightens me*”). This scale demonstrated adequate internal reliability ($\alpha = .77$).

Job involvement (Time 1). Job involvement was measured using the Job Involvement Questionnaire (Kanungo, 1982). This is a 10-item measure designed to assess the level of psychological identification that one has with their job (“*I consider my job to be very central to my existence*”). This scale was scored on a 6-point Likert scale (1 = *Strongly Disagree*, 6 = *Strongly Agree*). This measure demonstrated adequate internal consistency ($\alpha = .84$).

Need for achievement (Time 1). Need for achievement was measured using an adapted version of the Achievement Motivation Scale (Cassidy & Lynn, 1989). This scale was adapted from its original 49-item form to a 21-item measure by taking the three highest factor-loading items from each of the subscales. The measure was designed to assess an individual’s motivation to achieve and attain goals in their social environment. This scale assesses need for achievement over seven factors: Work ethic (“*I am basically a lazy person*”), acquisitiveness (“*It is important to me to make lots of money*”), dominance (“*I like to give orders and get things going*”), excellence (“*There is satisfaction in a job well done*”), competitiveness (“*It is important for me to perform better than others on a task*”), status aspiration (“*I would like an important job where people looked up to me*”), and mastery (“*I like to work in situations that require a high level of skill*”). Although, Cassidy and Lynn originally proposed a yes-no scale, other researchers have utilized a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*), which has demonstrated adequate internal consistency (e.g. Maner, Gailliot, Butz, & Peruche (2007); $\alpha = .83$). In the current study, the adapted measure utilized a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) and showed adequate internal consistency ($\alpha = .82$).

OCB (Time 2). OCB was measured using the OCB Checklist (Fox, Spector, Goh, Bruursema, & Kessler, 2012). This is a one-dimensional, 20-item scale that measures how often individuals engage in OCB (“*Lent a compassionate ear when someone had a work problem*”). It was scored on a 5-point Likert scale (1 = “*Never*”, 5 = “*Everyday*”). This scale demonstrated adequate internal consistency ($\alpha = .91$).

Turnover intentions (Time 2). Turnover intentions was measured using three items developed by DeTienne, Agle, Phillips, and Ingerson (2012). The items are “*It is likely that I will actively look for a new job next year*”, “*I often think about quitting*”, and “*I will probably look for a job next year*”. This scale was scored on a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) and demonstrated acceptable internal consistency ($\alpha = .91$).

Self-Esteem (Time 2). Self-esteem was measured using the Rosenberg Self-Esteem Scale. This scale is a 10-item measure of global self-esteem (“*I feel that I am a person of worth, at least on an equal basis with others*”). It was scored on a 4-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) and demonstrated acceptable internal consistency ($\alpha = .92$).

Control variables. Negative affectivity has been shown to correlate highly with generalized anxiety (Jolly, Dyck, Kramer, & Wherry, 1994). Since generalized anxiety is a covariate of death anxiety, I controlled for negative affectivity in order to prevent any confounding effects of negative affectivity on job involvement, OCB, and turnover intentions. Negative affectivity was measured using 10 items from the negative affectivity portion of the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). These items demonstrated acceptable internal consistency ($\alpha = .91$).

Demographics. Participants were also asked for their age, gender, race, tenure with their current organization and tenure in their current position and industry.

2.3 Analyses

Hypotheses 1-3 assessed the direct effects between death anxiety and job involvement, and job involvement and the two outcome variables. These hypotheses were tested using hierarchical regression in SPSS, which allows for the testing of the direct effects between death anxiety and job involvement, and job involvement and OCB and turnover, while controlling for negative affectivity. Negative affectivity was entered as a control variable in Step 1 of each regression, and predictors were entered into Step 2.

Hypotheses 4 and 5 predicted that job involvement would mediate the relationship between death anxiety and the outcome variables. These hypotheses were tested using the PROCESS (Model 4) macro in SPSS (Hayes, 2012). PROCESS is a free SPSS macro available on Andrew Hayes' website (<http://www.processmacro.org>) that allows for the testing of a number of different statistical models, including moderation, mediation, and combinations of the two. In addition, PROCESS allows for the utilization of the Preacher and Hayes (2008) bootstrapping approach to mediation. In this approach, normality is not assumed so random samples are taken from the data set and replaced n number of times. The current study utilized a 10,000 sample bootstrapping, which allows for a precise estimate of standard error. Significance is determined using 95% confidence intervals. Once again, negative affectivity was controlled for in all analyses.

Hypotheses 6 predicted that need for achievement would moderate the relationship between death anxiety and job involvement. This hypothesis was also tested using

PROCESS (Model 1). Significance was assessed using confidence intervals and negative affectivity was controlled for. Lastly, the overall fit of the complete model (as presented in Figure 1, including the moderation and mediations, was assessed using PROCESS (Model 7) with bootstrapping ($n = 10,000$).

CHAPTER 3. RESULTS

3.1 Data Cleaning and Organization

Data were cleaned by first exporting both Time 1 and Time 2 data from the SurveyGizmo website into Microsoft Excel. Next, MTurk IDs listed in the data files were compared to the list of approved ID's from the MTurk website. Any subject who did not receive approval on MTurk was deleted from the data set. This yielded 560 approved participants for Time 1 and 240 for Time 2. The Time 1 and Time 2 data files were then merged by matching on MTurk ID. Any Time 1 data that was not matched with Time 2 data was omitted from the current study. Data were then examined by time to complete. Any subject who took longer than fifteen minutes or less than two minutes to complete either Time 1 or Time 2 of the survey was deleted¹. This resulted in the deletion of sixteen cases. In addition, seven participants used IP addresses from outside the United States. Data from these participants was also removed from the current study, as being a U.S. citizen was a requirement for the study.

¹ Two minutes was chosen as the minimum cutoff because anything less was exceptionally quickly compared to the average survey completion time and deleting people who completed in more than 2 minutes would have resulted significant loss of power. Fifteen minutes was chosen as the upper bound because that was approximately three times the average survey completion time.

The data were then imported into SPSS, where the text responses from each scale were changed to numbers corresponding with each response option (i.e. Strongly Disagree = 1, Strongly Agree = 5). Following this, any reverse-worded items were appropriately scored. Finally, scale scores were calculated by taking the mean score of all scale items.

3.2 Descriptive Statistics

Descriptive statistics and correlations can be found in Table 1. All scale means, except Job Involvement, Negative Affectivity, and Self-Esteem, were within a half point of the midpoint, suggesting that the data looked relatively normal. Additionally, variance of the means was comparable to other studies using these scales, with all scales having standard deviations below 1.00. Turnover intention was the only exception (SD = 1.17). The limited variability of the scale means could have impacted the observed relationships by making it more difficult to detect effects. Job involvement scores tended to be lower with a mean of 2.85 on a 6-point scale. Conversely, self-esteem scores tended to be on the high end with a mean of 3.16 on a 4-point scale. In terms of correlations, death anxiety was positively related to job involvement ($r = .17, p < .05$) and negative affect ($r = .15, p < .05$), and negatively related to self-esteem ($r = -.19, p < .01$). In addition to death anxiety, job involvement was positively related to need for achievement ($r = .41, p < .01$). In regards to the outcome measures, OCB was positively related to need for achievement ($r = .22, p < .01$) and self-esteem ($r = .18, p < .01$). Turnover intentions were positively related to negative affect ($r = .34, p < .01$) and negatively related to self-esteem ($r = -.34, p < .01$).

3.3 Regression

Hierarchical regression was used to test the relationship between death anxiety and job involvement and the relationships between job involvement and the two outcome measures (Hypotheses 1-3; see Table 2). Hypothesis 1 posited that death anxiety would be positively related to job involvement. This hypothesis was supported ($\beta = .19$ $p < .05$) suggesting that death anxiety is associated with higher levels of job involvement.

Hypothesis 2 and 3 were directed at the outcome measures of organizational citizenship behavior and turnover. Hypotheses 2 proposed that job involvement would be related to organizational citizenship behavior. This was not supported. However, hypothesis 3, that job involvement would be related to turnover, was supported ($\beta = -.176$, $p < .05$).

The predicted mediation of job involvement on the relationship between death anxiety and the two outcome variables was tested through a mediated regression with bootstrapping using PROCESS (model 4). Hypothesis 4, that job involvement would mediate the relationship between death anxiety and organizational citizenship behavior, was not supported. However, hypothesis 5, that job involvement mediates the relationship between death anxiety and turnover, was supported ($\alpha\beta = -.04$, 95% CI [-.11, -.003]). This result suggests that higher levels of death anxiety are associated with slightly lower rates of turnover, through the mediating mechanism of job involvement. Results for hypotheses 4 and 5 can be found in Tables 3 and 4.

The final hypothesis, hypothesis 6, posited that the relationship between death anxiety and job involvement would be moderated by need for achievement. This moderation effect was tested using moderated regression using PROCESS (model 1) and

was not supported. As a final step, the overall model was assessed using moderated mediated regression in PROCESS (model 7). The results of the overall model were non-significant, which is unsurprising given the lack of support for several links in the model.

CHAPTER 4. DISCUSSION

Death anxiety and its effects in the workplace is an area of research that has received little empirical attention. Recently, however, research has found that death anxiety has serious negative effects on people working in jobs with high mortality cues (Sliter et al., 2014). These findings, though representing a start in incorporating death anxiety research into the workplace, serve to highlight further gaps in the research. Specifically, little research has addressed the effects of death anxiety in low mortality cue jobs. The present study sought to fill this hole in the literature by examining the impact of death anxiety in low mortality cue jobs. In the space below, I will address the goals of the study, significant and nonsignificant findings, limitations, practical and theoretical implications, and future directions for research.

The first goal of this study was to examine the relationship between death anxiety and job involvement. The hypothesis, that death anxiety would be positively related to job involvement, was supported. This is in line with TMT, which suggests that those higher in death anxiety may use their jobs as a source of self-esteem (Greenberg et al., 1986). In other words, those higher in death anxiety will have a greater need to bolster self-esteem as a defense against existential threats and one way they may do this is by becoming involved in their jobs. Alternatively, this association could also be the result of

people using their jobs as a means of suppressing death-related thoughts or attempting to make a death transcending contribution to the culture (Pyszczynski et al., 1999).

The second goal of the study was to examine the relationships between job involvement and both OCB and turnover intentions. Specifically, I hypothesized that job involvement would be associated with higher levels of OCB and lower levels of turnover intentions. The hypotheses were partially supported, with job involvement being negatively correlated with turnover intentions but being uncorrelated with OCB. Regarding turnover intentions, the results were consistent with theoretical expectations. Specifically, those who are highly involved in their jobs should have little intention to turnover voluntarily. Furthermore, turnover intentions are generally the result of dissatisfaction with one's work (Griffeth et al., 2000) and those who are dissatisfied with their work will be less likely to be highly involved in their jobs.

In regards to OCB, no association was found between job involvement and OCB. This was unexpected, as this relationship has been shown previously in the literature (Chiu & Tsai, 2006; Chughtai, 2008; Diefendorff, Brown, Kamin, & Lord, 2002). There are a few potential reasons for this non-significant result. First, the measure used in the current study is relatively new (Fox et al., 2012), and its relationship with job involvement had not yet been examined. Along these lines, there are a number of differences in the current measure and other measures of OCB that have previously demonstrated a relationship with job involvement (Coleman & Borman, 2000; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). The measure developed by Podsakoff and colleagues (1990) breaks down OCB into the dimensions of altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. The Colman and Borman (2000) measure

breaks OCB down similarly, but combines the facets into interpersonal citizenship and organizational citizenship, while also including a facet on job/task citizenship.

Conversely, the measure used in the current study (Fox et al., 2012) is unidimensional. This difference in factor structure could have impacted the results, as it may have been that a factor not explicitly measured in the current measure, was driving the relationship found in previous research.

Next, previous measures of OCB have asked for ratings of agreement, whereas the current measure was designed and utilized to assess behavioral frequency. Fox and colleagues (2012) also argue that previous measures of OCB have viewed OCB largely as the opposite or absence of counterproductive work behaviors (i.e. “*This employee follows the company’s regulations and procedures*”; Coleman & Borman, 2000) and include some items that are more indicative of personality characteristics rather than behavior (i.e. “*Always focuses on what’s wrong, rather than the positive side*”; Podsakoff et al., 1990). Fox and colleagues (2012) designed the OCB-C to combat both of these issues by ensuring that OCB was conceptualized as more than merely the absence of CWB and by creating a measure that was behaviorally based. Lastly, when a relationship has been shown between OCB and job involvement previously, OCB has been assessed by the supervisor (Chiu & Tsai, 2006; Chughtai, 2008; Diefendorff et al., 2002), as opposed to the employee, as in the present the study. In sum, these differences between the measure of OCB used in the present study and previous OCB measures, as well as a slight procedural difference, could help to explain the lack of a significant finding.

A third goal of the study was to examine the mediating effect of job involvement on the relationships between death anxiety and OCB, and death anxiety and turnover. I

hypothesized that job involvement would mediate the relationships between death anxiety and OCB and turnover intentions. Once again, results revealed partial support, as the mediating effect was found for turnover intentions but not for OCB. Results revealed that job involvement did not mediate the relationship between death anxiety and OCB. This finding does not come as a surprise, given that neither death anxiety nor job involvement was correlated with OCB, possibly for reasons discussed above.

In terms of turnover intentions, results revealed that, although there was no direct relationship between death anxiety and turnover intentions, death anxiety does have an effect on turnover intentions through job involvement. That is, individuals who are higher in death anxiety may also be more involved in their jobs, and less likely to have intentions to turnover. This finding is in line with both TMT as well as the literature on job involvement. Specifically, this finding supports the notion that death anxiety will drive people to be more involved in their jobs in order to maintain self-esteem and distract themselves from death (Greenberg et al, 1986). Furthermore, the results suggest that being involved in one's job is associated with lower turnover intentions, as has been found in prior research (Hallberg & Schaufeli, 2011). Importantly, this indirect effect of death anxiety on turnover intentions in low mortality cue jobs is contrary to the effects of death anxiety in high mortality cue jobs (Sliter et al., 2014).

The final goal of this study was to examine the moderating effect of need for achievement on the relationship between death anxiety and job involvement. It was hypothesized that higher levels of need for achievement would strengthen the relationship between death anxiety and job involvement, as those high in need for achievement would be more likely to seek self-esteem from their work place. This hypothesis was not

supported. Instead of a moderating effect, I found two direct effects, as both death anxiety and need for achievement were significantly correlated with job involvement. The relationship between need for achievement and job involvement does not come as a surprise, as it had already been found in the literature (Steers, 1975). Those high in need for achievement would be motivated to excel in the workplace by being highly involved in their jobs. However, the lack of a significant moderating effect suggests that level of need for achievement has no effect on the relationship between death anxiety and job involvement. In other words, although I found a relationship between death anxiety and job involvement, this relationship does not get any stronger or weaker based on differing levels of need for achievement.

A potential reason for the lack of a significant finding could be due to the number of different sources of self-esteem that people have in their lives (Pelham & Swann, 1989). I hypothesized that those high in need for achievement would be more likely to seek self-esteem from their job than those low in need for achievement, thus the relationship between death anxiety and job involvement would be stronger for those higher in need for achievement. However, self-esteem is a volatile construct that is affected by one's affective state, how people view their own strengths and weaknesses, and how people frame those self-views (Pelham & Swann, 1989). This suggests that it may be too difficult to disentangle the sources of self-esteem in order to determine how much of one's self-esteem comes from their jobs, and thus, would be affected by need for achievement. In addition, since one source of self-esteem is how people view their own strengths and weaknesses, it is possible that people high in death anxiety may look to strengths other than work as sources of self-esteem.

An alternative explanation is that the underlying mechanism of the relationship between death anxiety and job involvement is incorrect. I hypothesized that those higher in death anxiety would be more involved in their jobs as a means of maintaining high levels of self-esteem and maintaining their cultural anxiety buffer (Greenberg et al., 1986). However, it may be that those who are higher in death anxiety are more involved in their jobs as a means of suppressing thoughts of death (Pyszczynski, Greenberg, & Solomon, 1999). If people were more involved in their jobs to suppress death thoughts instead of seeking self-esteem, then there would be no reason to suspect differences based on level of need for achievement.

A third possibility for the results is that death anxiety prompts all people to be highly involved in low mortality cue jobs. It should not come as a surprise that humans are constantly searching for meaning in life. Without meaningful pursuits and things that give our lives worth, we are open to existential threats (Greenberg et al., 1986). Since work is such a large part of human existence, it could be that death anxiety prompts all people to be highly involved in their jobs, as long as their jobs do not make mortality salient. This suggests that need for achievement does not play a role in the relationship between death anxiety and job involvement, as all people high in death anxiety will be motivated to be highly involved in their jobs.

4.1 Practical Implications

The practical implications of this study are somewhat limited. It would be impractical to suggest that employers start testing for death anxiety in order to get more involved employees. There are many other things that employers should assess before

death anxiety in low mortality cue jobs that would be much more predictive of employee performance (e.g., personality, intelligence, etc). However, this research does suggest a direction for career counselors when working with people who are high in death anxiety. The results of this study indicate that those who are high in death anxiety should not only avoid jobs with high mortality cues (Sliter et al., 2014), but may actually benefit from a job with low mortality cues. The present study suggests that occupations that generally take place in office settings may be particularly suitable to candidates high in death anxiety. More research is necessary to examine the effects hold for jobs in other settings.

4.2 Theoretical Implications

This study contributes to the death anxiety literature in a few different of ways. First, this study shows that death anxiety can operate differently in different work contexts. Contrary to high mortality cue job, where death anxiety has negative consequences (Sliter et al., 2014), this study demonstrated that death anxiety can actually have positive benefits in low mortality cue jobs. Specifically, the present study demonstrated that job involvement acts as a mediator in the relationship between death anxiety and turnover intentions in low mortality cue jobs, such that higher levels of death anxiety are associated with lower levels of turnover intentions. This is notable, as it runs completely contrary to studies that examine death anxiety in high mortality cue jobs, in which death anxiety results in job disengagement, and a number of negative job outcomes (Sliter et al., 2014). In addition, this is one of the first studies to demonstrate the positive effects of trait death anxiety in the workplace.

Secondly, this study provides support for TMT and demonstrates its application in the workplace. Specifically, by demonstrating the direct effect of death anxiety on job involvement, the current study provides support for people's innate need for self-esteem in order to bolster their cultural anxiety buffer (Greenberg et al., 1990). Alternatively, this study may show the effects of the proximal pathway of death through suppression (Pyszczynski, Greenberg, & Solomon, 1999). That is, people with higher levels of death anxiety may be more involved in their job as a means of distracting themselves from thoughts of death. Additionally, research will be necessary to determine which mechanism of TMT is driving the effect of death anxiety on job involvement in low mortality cue jobs.

4.3 Limitations

Although there are a number of strengths of this study (i.e. multiple time points, geographical and demographic diversity of sample), there are also some limitations. First, this study utilized solely self-report measures. This could result in inflated or deflated correlation coefficients due to common method bias. Common method bias is the inflating or deflating of correlation coefficients that occurs naturally when constructs are measured at the same time, under same conditions or using the same method (Podsakoff, MacKenzie, & Podsakoff, 2012). In an effort to cut down on common method bias, I measured the predictor and outcome variables at two time points with two weeks in between and scales were randomly presented to participants within each survey. One other limitation of self-report measures is that they allow for the possibility of socially desirable or inaccurate responding by participants. In order to cut down on these risks, I

guaranteed confidentiality of the data such that responses would only be accessible to the research team. Furthermore, due to the anonymity of MTurk and MTurker approval ratings and research suggesting that MTurk data is of as reliable as laboratory data (Buhrmester, Kwang, & Gosling, 2011), I concluded that social desirability and inaccurate responding were not a problem.

A second limitation of this study is in regards to the MTurk sample. Although research has demonstrated that MTurk data are generally as reliable as student samples (Berinsky, Huber, & Lenz, 2012; Buhrmester et al., 2011), there is much less control over the research conditions. That is, I have little knowledge of what people were doing or how much effort was put forth while completing the survey. In addition, the average survey completion time was less than five minutes for both Time 1 and Time 2, suggesting that most people completed the survey rather quickly (and perhaps without their best effort). However, attention check items and deletion of participants who completed the survey in less than two minutes were used to combat these limitations.

A third limitation of this study is that it is correlational in nature. Since participants were not randomly assigned to conditions and there was no manipulation of an independent variable, I cannot explicitly make inferences about causation. I can only go as far as to say that the variables are related, but not that the variables are predictive of one another. However, the use of multiple time points and the fact that significant effects were in the hypothesized directions and in line with theory, lend some credibility to the findings. Since death anxiety is a trait that cannot be randomly assigned, future research should attempt to form more causal linkages through the use of quasi-experimental studies.

4.4 Future Directions

The results of the current study open the door to a number of different lines of future research. First, research should focus on better understanding the workplace attitudes of those high in death anxiety. For example, since job involvement has been shown to be associated with higher levels of overall job performance (Diefendorff et al., 2002), future research should examine the effects of death anxiety on overall job performance in low mortality cue jobs. Additionally, research should focus on understanding the relationship between death anxiety and other outcomes variables are mediated by job involvement. Job involvement has long been associated with organizational commitment and job satisfaction (Brooke, Russell, & Price, 1988) so examination of those two outcomes is an area for future research that would greatly contribute to our understanding of the workplace attitudes of high death anxiety individuals. In particular, examination of organizational commitment could help shed light on the relationship between death anxiety and OCB.

Secondly, future research should focus on understanding the positive effects of death anxiety in regards to age and tenure. Previous research has shown that job involvement is incredibly volatile at earlier stages of the work career and begins to grow more stable with increases in age and tenure (Lorence & Mortimer, 1985). This suggests that the relationship between death anxiety and job involvement may change over the lifespan. Examining potentially differential effects of age and tenure on the death anxiety-job involvement relationship is another fruitful area for future research.

Third, future research should focus on better understanding which TMT mechanism is driving the relationship between death anxiety and job involvement. It was

hypothesized that death anxiety would be associated with higher job involvement as a means of maintaining self-esteem to bolster the cultural anxiety buffer, but also as a means of suppressing death thoughts. The fact that the current study found no relationship between self-esteem and job involvement suggests that more research is necessary to better understand what mechanism is driving the death anxiety-job involvement relationship, and what role, if any, self-esteem plays in the process. This could be conducted by examining any differences in sources of self-esteem between high and low death anxiety people, or by simply asking people why they feel they are highly involved in their jobs.

Lastly, the use of quasi-experimental approaches should be employed to the study of death anxiety in low mortality cue jobs. Given that death anxiety is a trait and cannot be manipulated within people, a true experiment is impossible to conduct. However, the use of a quasi-experimental design is one way that researchers can begin to move towards causality. For example, participants could be split into groups based on level of trait death anxiety and then they could rate their level of job involvement at different ages or lengths of tenure. Additionally, the use of these types of designs could be used to investigate the effects of making mortality salient to people with both high and low levels of death anxiety and examining its results on their work behavior and attitudes.

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TABLES

Table 1

Descriptive Statistics and Correlations

	<i>Mean</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Death Anxiety	3.17	.72	(.77)						
2. Need for Achievement	3.32	.49	.07	(.82)					
3. Job Involvement	2.85	.85	.17*	.41**	(.84)				
4. OCB	2.94	.61	-.10	.22**	.09	(.91)			
5. Turnover Intentions	2.65	1.17	.11	.10	-.11	-.06	(.91)		
6. Negative Affect	1.45	.57	.15*	.04	.05	-.01	.34**	(.91)	
7. Self-Esteem	3.16	.62	-.19*	.19**	-.06	.19**	-.34**	-.59**	(.92)

Note. n = 215. Significant values of the correlations are as follows: * = p < .05; ** = p < .01

Table 2

Direct Effects of Hierarchical Regression (Hypotheses 1-3)

Direct Effects	b	SE	t	p
Death Anxiety → Job Involvement	.191	.081	2.35	.019
Job Involvement → OCB	.062	.050	1.26	.209
Job Involvement → Turnover	-.176	.088	-1.99	.048
Intentions				

Note. N = 215. Negative affectivity was controlled for in all analyses.

Table 3

Direct and Indirect Effects of Death Anxiety on OCB (Hypothesis 4)

Direct Effects	b	SE	LLCI	ULCI
Death anxiety → Job Involvement	.19	.08	.03	.35
Job Involvement → OCB	.08	.05	-.02	.17
Death Anxiety → OCB	-.10	.06	-.22	.02
Indirect Effects	ab	Boot SE	Boot LLCI	Boot ULCI
Job Involvement	-.01	-.01	-.002	.06

Note. N = 215. LLCI = Lower Level 95% Confidence Interval. ULCI = Upper Level 95% Confidence Interval. Bootstrapped confidence intervals were based on $n = 10,000$ bootstrapped samples. Negative Affectivity was controlled for in the analysis.

Table 4

Direct and Indirect Effects of Death Anxiety on Turnover Intentions (Hypothesis 5)

Direct Effects	b	SE	LLCI	ULCI
Death anxiety → Job Involvement	.19	.08	.03	.35
Job Involvement → Turnover Intentions	-.19	.09	-.37	-.02
Death Anxiety → Turnover Intentions	.13	.11	-.08	.34
Indirect Effects	ab	Boot SE	Boot LLCI	Boot ULCI
Job Involvement	-.03	.03	-.11	-.003

Note. N = 215. LLCI = Lower Level 95% Confidence Interval. ULCI = Upper Level 95% Confidence Interval. Bootstrapped confidence intervals were based on $n = 10,000$ bootstrapped samples. Negative Affectivity was controlled for in the analysis.

FIGURES

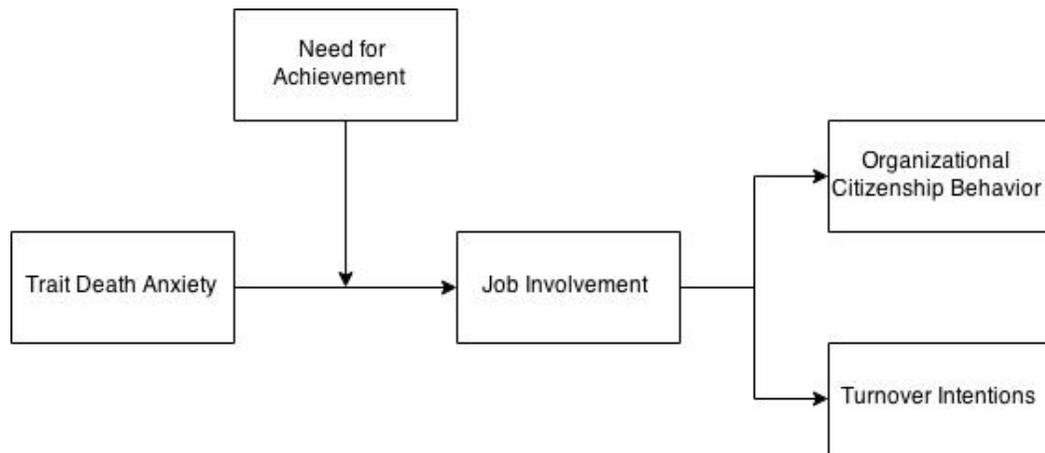


Figure 1. Proposed model of the effects of trait death anxiety on white-collar workers

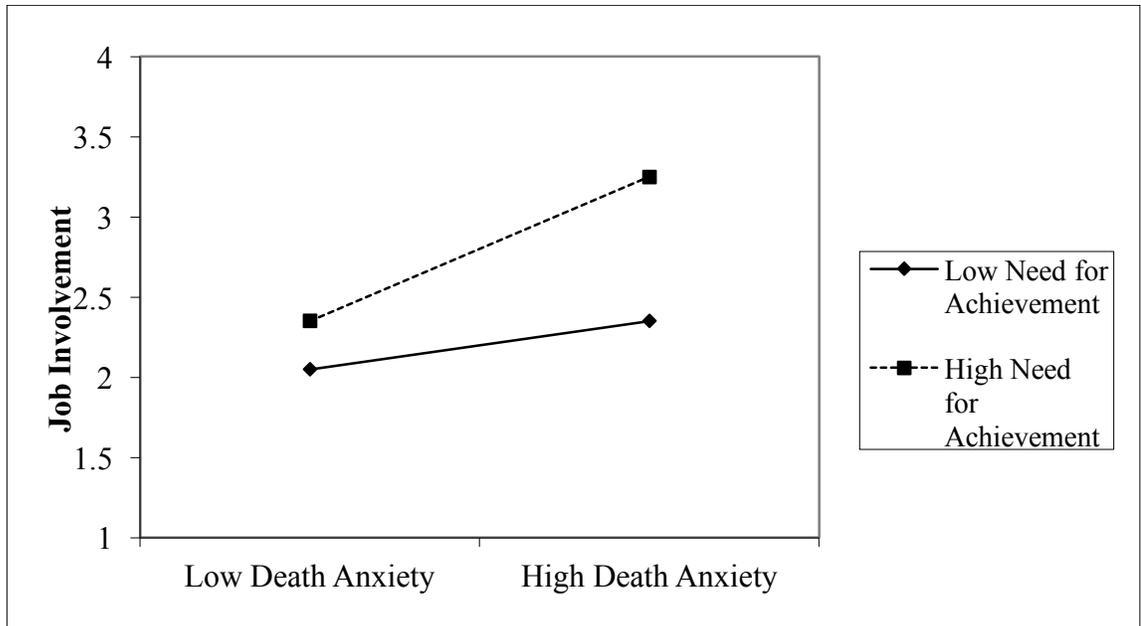


Figure 2. Proposed moderation of need for achievement on the relationship between death anxiety and job involvement

APPENDIX

APPENDIX

Death Anxiety

Please indicate the extent to which you agree with the following statements.

1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly agree

- Not knowing what the next world is like troubles me.
- The idea of never thinking again after I die frightens me.
- I am worried about what happens to us after we die.
- I am not afraid of a long, slow dying.
- I am not worried about ever being helpless.
- I am not particularly afraid of getting cancer.
- The subject of life after death troubles me greatly.
- I am looking forward to new life after I die.
- What happens to my body after I die does not bother me.

Need for Achievement

Please indicate whether or not the following statements apply to you.

Yes-No scale

- I can easily sit for a long time doing nothing.

- I am basically a lazy person.
- I easily get bored if I don't have something to do.
- I would be willing to work for a salary that was below average if job was pleasant.
- I frequently think about what I might do to earn a great deal of money.
- It is important to me to make lots of money.
- If given the chance I would make a good leader of people.
- I think I am usually a leader in my group.
- I like to give orders and get things going.
- I hate to see bad workmanship.
- I get a sense of satisfaction out of being able to say I have done a very good job on a project.
- There is satisfaction in a job well done.
- It annoys me when other people perform better than I do.
- To be a real success I feel I have to do better than everyone I come up against.
- It is important to me to perform better than others on a task.
- I would like an important job where people looked up to me.
- I like talking to people who are important.
- I want to be an important person in the community.
- I would rather do something at which I feel confident and relaxed.
- I prefer to work in situations that require a high level of skill.
- I more often attempt tasks that I am not sure I can do than tasks I know I can do.

Job Involvement

Please indicate the extent to which you agree with the following statements.

1: Strongly disagree, 2: Disagree, 3: Slightly disagree, 4: Slightly agree, 5: Agree, 6:

Strongly agree

- The most important things that happen to me involve my present job.
- To me, my job is only a small part of who I am.
- I am very much involved personally in my job.
- I live, eat and breathe my job.
- Most of my interests are centered around my job.
- I have very strong ties with my present job which would be very difficult to break.
- Usually I feel detached from my job. **R**
- Most of my personal life goals are job-oriented.
- I consider my job to be very central to my existence.
- I like to be absorbed in my job most of the time.

Organizational Citizenship Behavior

Please indicate how often you engage in the following behaviors at your present job.

1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Everyday

- Picked up a meal for others at work.
- Took time to advise, coach, or mentor a co-worker.
- Helped co-worker learn new skills or shared job knowledge.
- Helped new employees get oriented to the job.

- Lent a compassionate ear when someone had a work problem.
- Lent a compassionate ear when someone had a personal problem.
- Changed vacation schedule, workdays, or shifts to accommodate co-worker's needs.
- Offered suggestions to improve how work is done.
- Offered suggestions for improving the work environment.
- Finished something for co-worker who had to leave early.
- Helped a less capable co-worker lift a heavy box or other object.
- Helped a co-worker who had too much to do.
- Volunteered for extra work assignments.
- Took phone messages for absent or busy co-worker.
- Said good things about your employer in front of others.
- Gave up meal and other breaks to complete work.
- Volunteered to help a co-worker deal with a difficult customer, vendor, or co-worker.
- Went out of the way to give co-worker encouragement or express appreciation.
- Decorated, straightened up, or otherwise beautified common work space.
- Defended a co-worker who was being 'put-down' or spoken ill of by other co-workers or supervisor.

Turnover Intentions

Please rate the extent to which you agree with the following statements.

1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly Agree

- It is likely that I will actively look for a new job next year.
- I often think about quitting.
- I will probably look for a job next year.

Negative Affectivity

Please rate how you feel in general, that is, on average.

1: Very slightly or not at all, 2: A little, 3: Moderately, 4: Quite a bit, 5: Extremely

- Distressed
- Upset
- Guilty
- Scared
- Hostile
- Irritable
- Ashamed
- Nervous
- Jittery
- Afraid

Self Esteem

Please indicate the extent to which you agree with the following items.

1: Strongly Disagree, 2: Disagree, 3: Agree, 4: Strongly Agree

- I feel that I am a person of worth, at least on an equal basis with others.
- I feel that I have a number of good qualities.
- All in all, I am inclined to feel that I am a failure.
- I am able to do thing as well as most other people.
- I feel that I do not have much to be proud of.
- I take a positive attitude towards myself.
- On the whole, I am satisfied with myself.
- I wish I could have more respect for myself.
- I certainly feel useless at times.
- At times I think I am no good at all.