Questing and Defense Against Death Anxiety

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Abstract

In his seminal work *The Denial of* Death, Ernest Becker suggested that the primary motivation behind human behavior is a fear of dying. This claim has been operationalized into an empirically based theory entitled Terror Management Theory (TMT). TMT outlines how self-esteem and cultural worldviews play an important role in how humans manage death anxiety. One especially important cultural worldview is religion. TMT research suggests that religious beliefs help provide protection again death anxiety. Religious orientation research outlines three orientations to religion: extrinsic, intrinsic, and quest. In the present study, I investigate whether a quest-like state of mind may help buffer the effects of death anxiety.

Keywords: death anxiety, mortality salience, terror management theory, TMT, quest, questing

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Chapter I: Introduction

What is it to be a human being? How does one live a truly human life? Create a self? What is the meaning of life? These questions have preoccupied philosophers, theologians and psychologists for millennia. Beginning in the 19th century, however, a school of thought devoted specifically to addressing these questions began to emerge: existentialism. Though more a collection of related philosophies than a single psychological system, existentialism addresses questions regarding the nature of human existence and offers insights for how to live a fully human life.

Although existentialism is often considered an intellectual movement emanating from postwar Europe (Crowell, 2020), 19th century philosophers Søren Kierkegaard and Friedrich Nietzsche are usually credited as the progenitors of existentialist philosophy. Other philosophers, including Jean-Paul Sartre, Albert Camus, Martin Heidegger, and Maurice Merleau-Ponty, also contributed to prominent existential ideas in the 20th century (Crowell, 2020). These existential writers contend that human nature is not deterministic; rather, individual choice plays a significant role in human life and meaning is born out of the choices we make.

The idea of personal freedom is a foundational aspect of existential philosophy. This is most readily apparent in the work of Jean-Paul Sartre. One of Sartre's most significant contributions is his idea that "existence precedes essence." He offered this as a counterclaim to the Scholastic position that essence precedes existence, claiming that being human does not, of itself, possess any inherent value or meaning. Rather, value and meaning are created by the individual; meaning emerges from individual experience, especially individual choices (Crowell, 2020; Flynn, 2013). Webber captures Sartre's idea nicely, "A person does not have an inbuilt set

of values they are inherently structured to pursue. Rather, the values that shape a person's behavior result from the choices they have made" (Webber, 2018, p. 4). Individual choice and the responsibility for those choices are critical to the *development* of values.

Similarly, Albert Camus wrote of the absurdity of the human condition. Summarized succinctly in the introduction of *Camus: The Myth of Sisyphus*, he wrote, "The human condition is characterized by the probability of suffering and the certainty of death – a fate which human reason cannot accept as reasonable." (Camus, 1955, p. 1). He added that one of our biggest challenges is finding meaning and happiness in an irrational world. Absurdity emerges when our need for meaning and order confronts the meaninglessness of the universe (Camus, 1955). Camus contends that humans look to the universe to answer the fundamental question of the meaning of existence, but are met with silence. We must seek the answer within the vast possibilities that accompany existence.

Sartre's position that we develop our values via experience and Camus' concept of absurdity share one of the central ideas of existentialism: radical freedom of the will. Existentialists believe that *choice* is the fundamental motivator of behavior and our ability to make choices is what defines us (i.e., I am my choices) (Sartre, 1956). Self-definition and understanding what things are meaningful to an individual is the central existential task in life. The freedom to choose and the choices that we make define who we are. From this perspective, freedom of choice and responsibility for those choices plays a vital role in existential philosophy. "Man (sic) stands hopelessly alone in an immense universe, torn by the stresses of life, and finding himself (sic) only through his (sic) own activity, though his (sic) *life*. The goal of life is

living of it, the activity and personal evolution, the reaching upward and outward" (Robinson, 1995, p. 263, italics in original).

The existentialist idea of radical free will that Camus and Sartre write about comes with consequences, though. Freedom of choice and being responsible for the consequences of those choices comes with a very real downside. That is, to realize that we are living freely in a non-determined, non-ordered universe can be anxiety-generating to the point of being entirely overwhelming. Chaos and absurdity are the true nature of reality. Rationality, logic, and order are creations of the human mind that make it tolerable to live in a non-determined universe. If it is as the existentialists argue and we are living freely in the chaotic, unpredictable world, then we must contend with the fact that our non-existence can come at any time, either as a result of our own actions or of those outside of our control. But humans are embodied creatures with evolutionary adaptations to deal with danger: we have bursts of adrenaline to fight or flee, or freeze in place to manage threats. The danger of our non-existence, however, cannot be managed through fighting or fleeing. Without some way to cope with this anxiety, the radical freedom that existentialists see as a vital part of human experience may be completely overwhelming.

Death Anxiety and Ernest Becker

Some of the existential ideas from the 19th and mid-20th centuries would reemerge later in the work of cultural anthropologist Ernest Becker. In *The Denial of Death*, Becker (1973) examines existential ideas first put forth by the 19th century philosopher Søren Kierkegaard. Kierkegaard maintained that the question of immortality is not a scholarly question. Rather, it comes from inside us while, at the same time, requiring us to ask the question even as we become conscious of ourselves (Kierkegaard, 1846). What Kierkegaard is getting at is that

human consciousness creates the (unfortunate) side effect of allowing us to *know* that we are mortal creatures and that we will eventually die. Put another way, awareness of death is the price we pay for possessing an intellect (Solomon, Greenberg, & Pyszczynski, 2015).

The foundation of Becker's idea is simple: humans are both conscious and mortal. The effect of this is profound. "The irony of man's condition is that the deepest need is to be free of the anxiety of death and annihilation; but it is life itself which awakens it, and so we must shrink from being fully alive" (Becker, 1973, p. 66). This claim, that humans need above all to be free from death anxiety, lies at the core of Becker's thought. He believed that is it only via the defense mechanism of repression that we are able to withstand a world that is both miraculous and incomprehensible. He adds that if we could really see the universe in all its majesty, we would be paralyzed by indecision (Becker, 1973). In fact, Becker believed that to live our lives wholly unrepressed and to fully realize and understand our mortality would result in total psychosis (Becker, 1973).

Becker contended that the shrinking from being fully alive is necessary, requiring us to create a "vital lie" that makes living possible (Becker, 1973). In this, he echoed Freud's claim that modern attitudes toward death force us to live beyond our psychological means; that we would be better off if we thought consciously about death rather than allowing the fear it incites to remain in the unconscious (Freud, 1915). However, the fact is that most humans go to great lengths to avoid thoughts of death, largely because of the existential terror they provoke (Becker, 1973; Greenberg, Pyszczynski, & Solomon, 1986; Greenberg, Solomon, & Pyszczynski, 1997). But, as Becker noted, "death" is a concept, one that other animals seem to lack. Living an entire

human life knowing that death is inevitable threatens our very existence (Becker, 1973). Becker thought that fear of death is, in fact, the principal motivator of human behavior (Becker, 1973).

Becker also felt that the fear of death helps us maintain an important sense of self-preservation and thus survival. But, at the same time, to be fully aware of our mortality would be overpowering and would prevent us from being able to function at all (Becker, 1973). Thus, to truly know one's own mortality, to really understand the chaos and disorder that define worldly experience, would result in paralyzing, disintegrating anxiety.

So how do humans to manage this terror and overcome the anxiety generated by the world's unpredictability? Becker theorized that humans have a preoccupation with *heroism* and the idea of becoming heroes as a way to manage existential terror and to orient ourselves toward self-preservation. He quoted Nathanial Shaler, "…heroism is first and foremost a reflex of the terror of death" (in Becker, 1973, p. 11). Becker felt that when humans are confronted with their own extinction, they, in their minds, play out the most heroic triumph imaginable. (Becker, 1973). He believed that our general instincts toward self-preservation combined with our ability to understand our mortality, direct our actions, and represent the world symbolically *require* us to develop an heroic identity (Becker, 1971). Here he was contending that, given the complex nature of human existence, a heroic self-identity becomes a necessary mechanism of survival.

Becker claimed that humans view the world through a narcissistic lens that presents things in the form of heroics and heroism. For him, narcissism is a central facet of human life; self-preservation, an awareness of one's body, and the sense of being alive combine, in the symbolic creatures that humans are, to the heroic urge. For Freud, this provides the psychic explanation of these facts, which he lumped together under the label of narcissism (Becker,

1971). Becker felt that narcissism was one way humans manage the tension between death anxiety and self-preservation, "… narcissism is what keeps men marching into point-blank fire in wars: at heart one doesn't feel that *he* will die, he only feels sorry for the man next to him." (Becker, 1973, p. 2).

Becker thought that humans have a natural narcissism that helps us feel good about ourselves and gives us a sense of self-worth, our self-esteem. It is important to note that this understanding of narcissism refers not to a pathological understanding of narcissism, but to a natural level of narcissism that is inherent in human existence, and that identifying with our own narcissism leads to one seeing themselves as a hero. Becker felt it is natural for humans to place themselves, in their own minds, at the center of the universe. He felt that narcissism and heroism were fundamental to human existence. In fact, he felt that becoming conscious of how we earn our heroism is the principle problem of life (Becker, 1973). For Becker, placing ourselves in the leading role in an epic heroic tale is the most reliable way to boost our self-regard and fend off death anxiety.

Imagining ourselves as the great protagonist in our own private drama requires us to suspend our awareness in a way that ignores important aspects of experience. Psychoanalyst Sandor Ferenczi claimed that psychological defenses are, at their core, distortions of reality that help us make living more manageable. He called this normal distortion of reality our "secret psychoses," claiming that we must each have our own secret psychoses in order to be able to see ourselves as the hero of our own narrative (Ferenczi, 1955). Becker takes this idea a step further, claiming that, without a secret psychosis to help us defend against existential terror, we would instead develop a literal psychosis (Becker, 1973).

Becker sees this idea of secret psychoses and narcissism as intertwined. He notes that normal narcissism invariably distorts our perception of reality. In its most common form, it creates healthy self-confidence that allows us to see ourselves as the protagonist in our own version of the heroic play. In its pathological form, it leads to a withdrawal from the world, into a life of private fantasy (Becker, 1971). Becker thus sees our defenses (i.e., our secret psychoses) as a way to ensure narcissistic regard for ourselves. He views this hidden form of madness as the way we maintain our sense of self-worth.

Becker also finds Ferenczi's idea of secret psychoses in the work of Harold Searles. He observed that Searles conceives or schizophrenia as developing from an inability to shut out terror. The desperation that ensues results in the fragmentation of the ego typical of schizophrenia (Becker, 1973). Becker felt that the schizophrenic's inability to develop adequate defenses allowed the true nature of reality to come through. In this way, the defenses are the hidden forms of madness that make living in the world tolerable, protecting us from more severe forms of psychopathology. When we become aware of our mortality (or, as Becker puts it, our "creatureliness"), we turn away in an effort to maintain our sanity. (1973).

Through seeing ourselves as the hero in our tale, we can imagine (at least symbolically) that we may persist *culturally* after death. That is to say that we can see ourselves as active contributors, participants in a cultural worldview that endures over time. While our narcissistic distortion of reality helps us feel better about ourselves by allowing us to feel more secure in the world, more prepared for what may come, our culture provides the plots for our heroic stories. As Dan McAdams says, "Culture … reveals its deepest and most profound influences on life

stories, essentially providing a menu of themes, images, and plots for the psychosocial construction for narrative identity" (McAdams, 2009, p.13).

One of the most powerful cultural worldviews, and one that provides the most common heroic narratives, is that of religion. Embracing a religious cultural worldview allows for belief in afterlife (actual literal immortality). It also allows us to guard against the threat of non-existence via the promise of an imagined future. If we are able to place ourselves as the hero of our own narrative, ensuring some form of immortality, we can overcome the fear of death while simultaneously feeling better about our place in the world and our own self-worth.

Terror Management Theory

In the 1980s, Becker's claim that terror of death is a central determinant of human behavior became the basis of a new experimental existentialism. Dubbed "Terror Management Theory" (TMT; Greenberg et al., 1986, 1997; Solomon et al., 1991, 2015), it is based on Becker's work and begins with the assumption that humans share with all other forms of life an inclination toward self-preservation. Humans differ from other living organisms through their capacity for abstract symbolic thought and complex cognitive activities. TMT theorists agree with Becker that the capacity for consciousness along with complex cognitive capabilities allow humans to have greater control over their actions. While moths do not know to avoid the flame, humans are able to stop and think about the consequences of their actions. This allows us to consider alternative possible scenarios and modify our behavior to pursue desired outcomes, a decided evolutionary advantage.

A significant drawback of consciousness and intelligence, though, is that we understand the brevity of life and the gravity of death. We can understand that although we have some

control over consequences, we are also perpetually vulnerable to being destroyed by things entirely out of our control. This kind of realization is terrifying and generates anxiety that must be contained. The TMT authors give us a way to understand how culture enables humans to manage this anxiety:

> "…because we can conceive of our ultimate vulnerability and mortality and can anticipate a variety of horrifying experiences, we have the potential to be paralyzed by terror at any moment in our lives. By elevating us above the rest of the living world, and providing a view of the world as orderly, predictable, meaningful, and permanent, culture allows for the possibility of minimizing our terror by denying our essential creatureliness (i.e., our impotence, vulnerability, and mortality). This possibility is realized to the extent that we can feel we are valuable members of the culture." (Greenberg et al., 1986, p. 198).

TMT theorists posit that humans avoid the anxiety created by awareness of their mortality by embracing cultural worldviews that provide a sense of meaning, and opportunities to procure self-esteem in pursuit of immortality.

Immortality can be literal or symbolic. Something is said to be symbolic if it is significant purely in terms of what is represented or implied, while to be literal means to take words in their most basic form without metaphor or allegory. Literal immortality centers around the belief that one will continue living after death, either through reincarnation or some form of afterlife; the belief that one will avoid their mortality and continue living, in a literal sense. This type of immortality is particularly prominent in many religious and spiritual belief systems. Symbolic immortality, on the other hand, allows one to feel immortal through things that will continue on

after one's death. One can feel that their contributions to the world, their legacy, will continue on through things that symbolically represent their efforts. These are things like children/family, authored works, and accomplishments; things valued by one's society and culture. (Lifton, 1996).

In order to buffer existential terror, we invest in cultural worldviews, organized ways of seeing the world that let us feel we are living in an orderly and predictable society. These worldviews provide a template for how to act and our self-esteem serves as the barometer for how well we meet internalized cultural standards. If we feel we are meeting the societal standards we hold in high regard, we feel better about our own individual value. In this way, humans are unconsciously motivated to maintain confidence in their cultural worldviews as a way to fortify and buffer their self-esteem in an attempt to ward off existential terror.

Empirical Assessment of TMT

Over the years, hundreds of studies have demonstrated the empirical validity of terror management theory. Empirical support for the theory falls into three general categories: the anxiety buffering properties of self-esteem, mortality salience and worldview defense, and death thought accessibility.

Anxiety buffering properties of self-esteem. If self-esteem does indeed act as a buffer against death anxiety, then increased self-esteem should reduce anxiety. Greenberg et al. (1992) found support for this idea. They gave participants positive or neutral feedback about their personality and then had them view a film of death (e.g., electrocution, autopsy) or a neutral film (e.g., scenes in nature). Those in the neutral personality feedback group showed a significant increase in self-reported anxiety after seeing the death-related video, indicating that the

manipulation to make participants feel threatened was effective. On the other hand, those who received a self-esteem boost by way of positive personality feedback showed no increase in self-reported anxiety after being exposed to a threatening stimulus. A second study replicated this finding with a different manipulation of self-esteem, a more potent threat, and a physiological measure of anxiety (galvanic skin response). Participants were given either positive feedback or no feedback on a supposed IQ test and then watched a series of colored lights where some of the participants were told they would receive painful electric shock. Results showed that while all participants were more aroused in anticipation of electric shocks than simply watching colored lights, those who received positive feedback experienced a significantly diminished effect, suggesting that the self-esteem boost they received prior was buffering some of the anticipatory anxiety. These studies, along with others (see Pyszczynski, Solomon, Greenberg, Arndt, & Schimel, 2004, for a review of this literature) illustrate that self-esteem does indeed act as an buffer against threats and that this effect is not limited to self-esteem related threats.

Mortality salience and worldview defense. If it is as TMT suggests and our cultural worldviews provide some protection against existential anxiety, then causing individuals to be more aware of their mortality would be expected to increase the need for the protection afforded by their beliefs. Accordingly, one would expect increased agreement with and affection for those with similar beliefs (as this would make it easier to utilize and maintain a cultural worldview to reinforce self-esteem), and corresponding negative attitudes toward those with dissimilar beliefs (or those that merely hold different beliefs) as exposure to these views may undercut one's confidence in their own beliefs.

Again, empirical evidence supports this claim. For instance, experiments found that municipal court judges who were reminded of their mortality set significantly higher bonds for individuals accused of prostitution than judges in the control condition (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). Follow-up studies using student populations again found this effect, but only when the judging party had a morally negative view of prostitution. These findings taken together suggest that defensive reactions to MS are not inherently negative, but instead limited to culturally relevant beliefs.

Another example of how cultural beliefs and mortality salience are linked is a study in which participants were asked to solve novel problems using different items. In this study, participants were tasked with two objectives: removing black dye using a piece of cloth and a straining process and then hanging a picture on a wall using a blunt object and a nail. In one condition, participants were given a flag as their piece of cloth and a crucifix as their blunt object, and in another condition, these were a simple white cloth and an innocuous wooden block. Participants that were given the simple items or participants that were not asked to think about their death prior to participating took on average 3 minutes to complete both tasks. On the other hand, participants who were both asked to think about their death prior to participating in the task and given the culturally significant items took almost twice as long to complete the objectives and reported considerable tension in doing so (Greenberg, Porteus, Simon, Pyszczynski, & Solomon, 1995). This study highlights how individuals seek to reinforce their worldviews in response to death reminders in an effort to maintain self-esteem and to ward off existential terror.

Death-thought accessibility (DTA). To examine if self-esteem and cultural worldviews serve a terror management function, a complementary hypothesis was tested: If aspects of one's cultural worldview or self-esteem are threatened, death thoughts should be more readily accessible (see Hayes, Schimel, Arndt, & Faucher, 2010, for a meta-analysis of DTA research). DTA is typically assessed by the number of incomplete word stems completed in death-related ways (e.g., C O F F _ _ could be COFFEE or COFFIN; G R _ V E could be GROVE OR GRAVE). Several studies have examined death-thought accessibility; DTA increased when Christian fundamentalists were confronted with logical inconsistencies in the bible (Friedman & Rholes, 2007); when creationists read an article providing strong evidence for evolution, or when Canadians read an article condemning their cultural values (Schimel, Hayes, Williams, & Jahrig, 2007); when Dutch citizens read an article claiming that progress is illusory (Rutjens, van der Pligt, & van Harreveld, 2009); and when atheists read an essay arguing in favor of intelligent design, stating that the theory of evolution cannot account for the origin of life (Hayes et al., 2015).

Other studies show that DTA increases not just when cultural worldviews are threatened, but also when self-esteem is threatened. DTA increased after participants were told their personality was incompatible with their career choice, or that they were unprepared to give an upcoming speech, or were given negative feedback about their intelligence (Hayes, Schimel, Faucher, & Williams, 2008). Similarly, Ogilvie, Cohen, & Solomon (2008) found that DTA increased after asking participants to consider undesirable aspects of themselves.

Religion and Terror Management Theory

Religion and religious beliefs are believed to be as old as modern humans. Philosophers and religious scholars have debated the psychological and social functions of religion. Some believe that religion has no real psychological function, but that it instead emerged as a way to bring us together socially (Durkheim, 1965). Others argue that religion has no real social or psychological function, but instead is a byproduct of other adaptive cognitive processes (e.g., the ability to anthropomorphize objects encourages the belief in an all-powerful human-like entity that we can then connect/identify with to feel more powerful or in control) (Bloom, 2005; Boyer, 2007; Kirkpatrick, 2005; Vail et al., 2010). And yet another argument (Becker, 1973; Burkert, 1998) is that religion serves as a way to address the existential concerns that arise from our awareness of our mortality (Vail et al., 2010). This way of conceptualizing religion fits within the TMT framework. Once we become aware of our own mortality and experience the overwhelming existential terror that results, we strive toward immortality as a way to elevate our existence and feel more secure in the world – or as Jonas and Fischer (2006, p. 554) put it, "[religion] serves as a meaningful system in which human life and human activities can be embedded, in which people can feel significant and be secure in the knowledge that they will live on in some form after physical death."

The idea that religion serves some sort of existential purpose also has empirical support. Studies have found that those who believe in some concept of the afterlife become more confident in the existence of afterlife following death reminders (Osarchuk & Tatz, 1973; Schoenrade, 1989). Additionally, as was referenced earlier, MS increases self-reported anxiety when individuals are asked to use a religious symbol in a way they perceive as disrespectful

(Greenberg et al., 1995; Solomon et al., 2015). Dechesne and colleagues (2003) found that ostensible scientific evidence of an afterlife decreased the need to bolster self-esteem following reminders of death (even in non-believers), suggesting that the strengthening of belief in literal immortality allows one to feel less threatened after being exposed to death reminders.

Religious Orientation and Terror Management Theory

Allport and Ross (1967) credit William James with first describing two fundamental types of religious belief: extrinsic and intrinsic. Jonas and Fischer (2006) define the former as a utilitarian approach to religion, wherein believers use religion to achieve particular ends. In particular, those with an extrinsic religious view seek safety, improved social standing, and moral justification for their actions (Allport, 1966; Jonas & Fischer, 2006). They contrast this with intrinsic religious orientation, wherein a mature and honest embrace of religion tied to internalized beliefs guide actions. For these people, religion is a prime motivator of behavior and religious beliefs provide them with both motivation and direction (Jonas & Fischer, 2006). Those with an extrinsic religious orientation are those who show up at church on Sunday because it would be a social faux pas to do otherwise, while those who are intrinsically-oriented tend to have beliefs that are deeply held without regard for how they are perceived by others.

Indeed, multiple studies have found positive correlations between intrinsic religiousness and mental health outcomes – things like sense of well-being, self-control, and self-regulation – and negative correlations for the same outcomes and extrinsic religious orientation (Bergin, Masters, & Richards, 1987; Jonas & Fischer, 2006; Maltby & Day, 2000). In a meta-analysis, Saroglou (2002) found that intrinsic religiosity was positively correlated with emotional stability while extrinsic religiousness was positively correlated with neuroticism. Similarly, Maltby and

Day (2004) found that intrinsic religiousness was associated with having a secure, healthy relationship to God with positive mental health outcomes, whereas extrinsic religiousness showed an insecure relationship to God and was associated with neuroticism.

Jonas and Fisher (2006) examined mortality salience effects as a function of religious orientation. They conducted a series of studies in which they used a naturally occurring terrorist event (the attacks in Istanbul in November 2003) as a mortality reminder. In their first study, they found that those who scored high on intrinsic religiousness did not react with worldview defense after the terror attack, whereas those who scored low on intrinsic religiousness did. Additionally, those who scored highly on extrinsic religiousness gained no benefit with regard to worldview defense. In their second study, they attempted to replicate the findings of the first while controlling for whether or not individuals had the opportunity to affirm their religious beliefs prior to responding (all participants *did* affirm their beliefs in the first study). They found that MS increases worldview defense in those who are low on intrinsic religiosity and for those who scored high on intrinsic religiosity but did not affirm their beliefs prior. Conversely, those who were able to affirm their beliefs prior to responding did not respond with increased worldview defense following death reminders. Once again, no effect was found with extrinsic religiosity. In their third study, Jonas and Fisher (2006) examined whether affirmation of religious beliefs decreased death-thought accessibility. They found that those who affirmed their beliefs prior and are high on intrinsic religiosity did not display heightened death thought accessibility following MS. They suggest that this finding indicates that those who are high on intrinsic religiosity are not necessarily better equipped to cope with increased death-though

accessibility, but instead that MS does not induce increased death-thought accessibility in nonreligious or low intrinsically oriented individuals.

In the decade after Allport and Ross distinguished between intrinsic and extrinsic religious orientation, Daniel Batson (1976) proposed "quest" as a third religious orientation. Batson found that three dimensions of religion emerged empirically in his studies – an externalizing orientation in which religion is a means to an end (extrinsic), an orientation to religion as an end itself (intrinsic), and a third dimension: orientation to religion as a quest, which he argued:

> … involves honestly facing existential questions in their complexity, while at the same time resisting clear-cut, pat answers. An individual who approaches religion in this way recognizes that he or she does not know, and probably never will know, the final truth about such matters. Still, the questions are deemed important, and, however subject to change, answers are sought. (Batson, Schoenrade, & Schoenradet, 1991a, p. 474).

Arrowood (2018) echoes this, claiming that individuals who see religion as a quest for truth are driven to ask questions about the nature of existence and meaning, even to the point of questioning their own most fundamental beliefs. In the process, they come to accept that thy may never actually obtain a final answer to their questions.

It seems then that there are three broad dimensions of religious orientation: extrinsically-oriented individuals for whom religion is a means to an end, intrinsically-oriented individuals for whom religion is a set of deeply held and internalized beliefs, and quest-oriented individuals for whom religion is a continual process of discovery. Batson (1976) found that those who were

intrinsically-oriented or quest-oriented were both more likely to stop and help a stranger in need, but that they would do so in different ways. He found that those who are intrinsically-motivated would be more persistent in their helping and that they would be less attuned to the needs of the person seeking aid while the quest-oriented individuals were more tentative and situational in their responding. The quest individuals were found to be more flexible in their approach to the person in need while the intrinsically oriented were more focused on the proper form of help.

Questing

It seems possible that those that have a quest-oriented view of their religion may in fact have a quest-oriented *worldview* that acts a broader spiritual stance toward life in general, religion included. The self-reflective and iterative nature of quest oriented thinking is highlighted by Hills, Francis, & Robbins (2005), who define quest-oriented individuals as those for whom religious belief becomes an interaction with the world, allowing them to see their religious doubts as essential to their belief, leading to spiritual growth. van Tongeren and colleagues (2016) wrote, “Another way of symbolically conceptualizing quest religion is as a journey, in which questions are prioritized over answers and individuals embrace doubt and ambiguity in their beliefs.” (Van Tongeren, Davis, Hook, & Johnson, 2016, p. 213-214). These authors see the questioning nature of quest religiosity as a fundamental aspect of the questing spiritual experience and one in which questions serve an existential purpose in themselves. What if questing is indeed a broader spiritual stance toward the world and in turn serves a function above and beyond being a religious orientation?

The notion of quest is prominent in myths across all cultures, and is also prevalent in secular culture. Perhaps the idea of questing, going on noble and heroic fantastical journeys,

lends itself to some sense of symbolic immortality - regardless of religion. In 2011, Cohen, Sullivan, Solomon, and colleagues sought to examine the role that fantasies (specifically flight fantasies) have with regard to death anxiety. They reasoned that cultures around the world have some sort of flying fantasy or myth often linked to immortality. To test this idea, they had participants who were exposed to either mortality salient conditions or neutral (television watching) conditions read through a paragraph about flight and flying before answering a few questions about their desire to fly in that moment. They found that those who were reminded of death were more likely to report past dreams of flight as well as increased desire to fly when compared to the control condition. They found in subsequent studies that flight fantasies were particularly effective when compared to other supernatural fantasies and that those engaging in flight fantasy were less defensive after MS versus those who did not engage in flight fantasy (Cohen et al., 2011). Perhaps then, engaging in quest-like fantasies may have a similar terror management function.

The present study seeks to examine whether a quest-like state of mind will reduce death-thought accessibility in response to a mortality salience induction. If questing allows one to feel some degree of heroism, some measure of symbolic immortality, then it would be expected that a quest-like state of mind would perhaps help buffer anxiety produced by death reminders, and that death-thought accessibility will be reduced as a result.

Chapter II: Methods

Study Population

Participants from the study were recruited from undergraduate introductory psychology courses in which students were required to participate in a prescribed number of research studies in exchange for course credit. Participants used an online research portal where they reviewed available research studies and selected those they were interested in based on brief descriptions. A power analysis revealed that for a moderate effect size ($f = 0.25$) and six experimental groups, approximately 251 participants would result in power ($1-\beta$) of 0.95.

Materials

Informed Consent

All participants went through an informed consent process prior to participation in the study (see Appendix A). The informed consent process was consistent with previous research in the field and aligned with the local university regulations.

Instructions and Filler Questionnaires

All participants first received the following instructions prior to completing the materials for the experiment:

> You will be completing a series of personality, attitude and judgment questionnaires. There are no right or wrong, or good or bad answers. Rather different responses reflect different personalities, attitudes and judgment styles. Please respond honestly and naturally to each question. Your responses to these questions are completely anonymous and will be used for research purposes only.

The purpose of this instruction was to put participants in an experiential, rather than rational, mind-set, given that mortality salience effects are diminished when rationality is salient, by preventing "the emotional impact of a threatening issue from registering or 'sinking in'." (Simon et al., 1997, p. 1134). The neuroticism subscale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1964; Appendix B) and Adult Attachment Scale (Hazan & Shaver, 1987; Appendix C) were then administered as filler questionnaires to sustain the cover story in order to obscure the purpose of the study.

Mortality Salience and Aversive Control Induction.

Consistent with previous terror management research (e.g., Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989), participants in the mortality salient (MS) condition (after a short reminder to respond with their gut reactions) read and responded to two open-ended questions: "Please describe the emotions that the thought of your own death arouses in you." And "Write down as specifically as you can, what you think will happen to you physically as you die and once you are dead." Control group participants responded to parallel questions about being in intense pain: "Please describe the emotions that the thought of being in extreme pain arouses in you." And then, "Write down as specifically as you can, what you think will happen to you physically as you are in extreme pain."

PANAS-X

The Positive and Negative Affect Schedule (PANAS-X; Watson & Clark, 1994; see Appendix D) asks participants to report the extent to which they were currently experiencing 60 positive and negative emotions (e.g., cheerful, sad, nervous, afraid, and calm). This was to assess

the affective consequences of the mortality salience induction and determine if subsequent effects observed on dependent measures are mediated by affect.

Questing and Vacationing Visualization

Some participants were asked to complete a visualization experience in order to manipulate the questing variable. This manipulation also served as a distraction task between the mortality salience/pain salience prompts and subsequent dependent measures (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994) First, participants completed a "Vividness of Visual Imagery Questionnaire" with the following instructions:

> Visual imagery refers to how people form mental pictures or to 'see in the mind's eye.' Great individual differences have been found in people's reports of visual imagery and these differences are of considerable psychological interest. The aim of this questionnaire is to determine the vividness of your visual imagery. The items of the questionnaire will ask you to bring certain images to mind, and then rate the vividness of each image.

Participants in the questing condition were then prompted "People from all backgrounds and across all cultures have been questing since antiquity. Visualize going on a quest - a journey that one takes in order to achieve a goal or complete an important task. Consider carefully each picture that comes before your mind's eye." These participants were then presented with the following single-sentence cues for their visualizations at 20 second intervals:

> The sun is rising above the horizon into a hazy sky.
>
> You feel an urge to seek answers to your questions about life.
>
> You start your journey and you feel a light breeze on your face.

You boldly venture forth, excited for what you will discover about yourself and the world around you.

Participants in the vacation condition were prompted "The idea of leaving your home and going on a vacation is as old as time. Visualize going on vacation – a period of extended leisure and recreation. Consider carefully each picture that comes before your mind's eye." They were then presented with these alternative single-sentence visualization cues at 20 second intervals:

The ground feels sturdy beneath your feet.

The sun is shining brightly in the sky and you feel a light breeze on your face.

You start to stroll across the field.

You relax and let go of your stress as you hear the sound of nature all around you.

After reading each sentence, all participants rated how vividly they could visualize the image on a 5-point scale (1=vague and dim; 5=perfectly clear and vivid). Questing participants were presented with an artistic image of a young man in a backpack looking toward the horizon (Appendix E); Vacation participants were presented with a photographic image of a young man in a backpack looking toward the horizon (Appendix F). All participants were instructed to imagine themselves as the person heading out on a quest (or vacation – depending on condition) while looking at the picture for 20 seconds.

Literary Passage

Participants who were not given imagery exercises instead read a literary passage and afterward answered a few brief questions about it (see Appendix G). This served as a distraction task between the mortality salience/pain salience prompts and the subsequent dependent measures (Greenberg et al., 1994).

Death Thought Accessibility

A death thought accessibility (DTA) measure was administered as the primary dependent measure. DTA was assessed by using a word fragment completion task, which has been utilized in previous research for this purpose (Greenberg et al., 1994; Harmon-Jones et al., 1997; Schimel et al., 2007). Participants were presented with 20-word fragments and instructed to complete the fragments with the first word that comes to mind. An example would be the fragment GRA_ _ , where participants could answer GRAVE or GRAPE. The possible death-related word completions are buried, dead, grave, kill, skull, and coffin. The other word fragments in the exercise are considered "neutral" words. More death-related word fragments are indicative of higher DTA.

Religious Life Inventory

The Religious Life Inventory[1] (RLI) was administered in order to assess the religious orientation of participants (extrinsic, intrinsic, or quest). This measure consists of 32 statements in which participants indicate how much they agree with each statement regarding religion (e.g., "I try hard to carry my religion over into all my other dealings in life"). This was done using a 5-point Likert scale with 1 being "strongly disagree" and 5 being "strongly agree."

[1] Religious orientation was originally measured according to guidelines laid out by Allport and Ross (intrinsic and extrinsic; 1967). In 1982, Batson and Ventis developed a 6-item measure called the Interactional (or quest) Scale that was intended to get at the more questioning nature not present in Allport and Ross's approach (Batson & Ventis, 1982). The RLI was developed by Batson and Schoenrade as an extension to the Interactional Scale and measures religious orientation along each of the 3 dimensions, with 9 questions comprising the intrinsic scale, 11 questions for the extrinsic, and 12 questions for quest (Batson & Schoenrade, 1991b)

Manipulation Checks

To assess the effectiveness of the manipulations, participants were to be presented with an open-ended question asking them to report what they wrote about and what they were asked to visualize earlier in the study. Then two multiple choice questions were to be given which prompt participants to indicate what they were asked to write about (music, pain, friends, or death) and what they were asked to visualize (college graduation, questing, childhood birthday, or vacationing). Participants who do not correctly indicate the conditions of the group that they were assigned were to be excluded from subsequent analyses. This manipulation check was not included in the final version of the survey.

Procedure

As participation in the study was online, the setting and duration for each participant varied. The average expected length of time required to participate in the study was 50-60 minutes. The only information given to participants prior to the study described the experiment as research examining "personality variables." The study was presented in this way to avoid priming the participants to think about anything that may impact the results of the survey, which is consistent with previous research.

Participants began with the informed consent process, followed by administration of the filler questionnaires to sustain the cover story. Then, based on random assignment, participants were placed into one of six groups in a 2 (mortality salient, pain salient) x 3 (questing, vacationing, control) factorial design.

MS groups were given the mortality salience writing prompt that asks them to think about their death, while each of the pain groups were given parallel writing prompts that replace "death" phrases with "extreme pain." All participants then completed the PANAS-X.

Visualization participants then completed the imagery exercises for either questing or vacationing. The remaining participants read the literary passage to serve as a delay/distraction.

All participants completed the death thought accessibility word fragment completion task. Once participants completed the DTA task, they were asked to fill out the Religious Life Inventory and after completing the RLI, they were asked a series of brief demographic questions (age, gender, ethnicity, religious orientation).

The experiment was concluded at this point. Participants were thanked for their participation, debriefed, and dismissed.

Hypotheses

1. MS participants in the Control condition will have higher DTA than pain salience participants. This finding would replicate previous research and establish the potency of the MS induction in this study.
2. Additionally, there will be a significant two-way interaction between mortality salience and visual imagery; specifically, that while vacationing participants will (like control participants) have higher DTA in response to MS, this effect will be diminished or entirely eliminated in the quest condition.

Predicted results are depicted in the table (Table 1) below:

Table 1: Predicted Death Thought Accessibility (DTA)

	Control	Vacationing	Quest
Pain	**Low**	**Low**	**Low**
Mortality Salience	**High**	**High**	**Low**

Chapter III: Results

The primary dependent measure in this study was death thought accessibility (DTA). The groups means and standard deviations for DTA can be seen in the table below (Table 2).

A 2 (pain salience, mortality salience) x 3 (control, vacation visualization, quest visualization) between groups ANOVA with DTA as the dependent measure revealed a marginal main effect for mortality salience ($F(1,241) = 3.733$, $p=.055$), however the predicted significant interaction between pain/mortality salience and control/vacation/quest was not obtained ($F(2,241) = 1.476$, $p = .231$).

These results are depicted graphically in Figure 1.

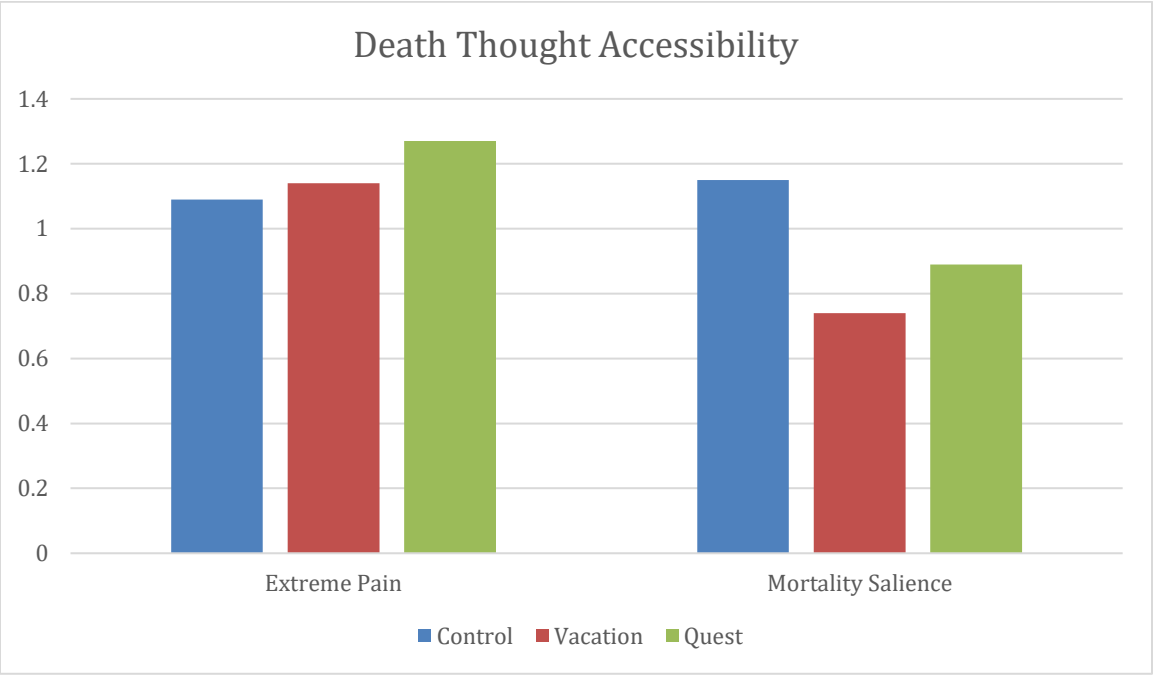
There was no difference in DTA scores between pain and mortality salience for control participants. Hypothesis 1 predicted that DTA would be higher in response to mortality salience than to pain salience, and because this result was not obtained, the conditions necessary to examine Hypothesis 2 (i.e., heighted DTA in response to mortality salience would be diminished by a quest visualization, relative to control conditions and a vacation visualization) were not obtained in this study. This result, or lack thereof, was quite unexpected and puzzling.

Regardless, one can see from a visual inspection of group means for MS participants that it appears that the lowest DTA was in the MS/vacation condition followed by the MS/quest condition. Recall that it was expected that the lowest DTA would be observed in response to the quest visualization relative to both the control and vacation visualization conditions. These findings are nominally opposite of what was predicted.

Table 2: Descriptive Statistics for DTA

Group	Condition	Mean	Standard Deviation	N
Extreme Pain	Control	1.09	.895	43
	Vacation	1.14	1.150	36
	Quest	1.27	.973	44
	Total	1.17	.998	123
Mortality Salience	Control	1.15	1.040	39
	Vacation	.74	.765	47
	Quest	.89	.953	38
	Total	.92	.925	124
Totals	Control	1.12	.961	82
	Vacation	.92	.965	83
	Quest	1.10	.976	82
	Total	1.04	.968	247

Figure 1: **DTA by Group**



Consequently, for exploratory purposes, a one-way ANOVA comparing control, vacation, and quest participants who were reminded of their death (i.e. mortality salience) revealed a marginal ($F(2,121) = 2.145$, $p = .12$) effect, which was due to the vacation participants having significantly lower DTA than control participants ($p = 0.41$). This difference is the reason that a marginal main effect for MS is observed in the overall analyses.

Secondary Analyses

There were no significant findings with regard to attachment style, neuroticism, or religious life inventory results.

Chapter IV: Discussion

Anxiety about our own mortality is a powerful force responsible for the ways that we as humans think, feel, fantasize, and behave. The present study sought to examine whether or not a quest-like state of mind may serve as a buffer against death anxiety by allowing one to feel like they are on an epic, meaningful journey toward a purposeful goal. Unfortunately, this study was unable to find such a connection.

These results do not support our hypothesis that a quest-like state of mind buffers against death anxiety. This finding (or lack thereof) presents a question: Is it the case that there simply is no relationship between a quest-like state of mind and death anxiety? Or, is it the case that the present study, due to various factors, was unable to properly assess the experimental hypotheses? I believe that it is the latter and that the initial hypothesis remains untested.

Testing the central hypothesis of this study (hypothesis 2) requires producing a mortality salience effect with regard to DTA in the control condition (hypothesis 1). This is an effect that has been routinely obtained in previous research but was unable to be obtained in the present study.

COVID-19

This study took place during the 2019-2022 pandemic where severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2 or “COVID-19”) affected communities across the world. During this time, ambient levels of death were present in all individuals exposed to COVID-19, individuals with family members who had COVID-19, or even those who saw media coverage of the consequences of COVID-19. It is unclear what impact this death ambience may have had on the present study, or whether or not COVID-19 made it more difficult to induce the death anxiety

effect necessary to assess the quest-like state of mind hypothesis. It stands to reason that mortality salience was simply present in the atmosphere, making it more difficult to induce a death anxiety effect, especially when using an electronic medium like the one used in this study. This line of thinking is supported in that Terror Management Theory researchers around the world have reported that during the pandemic, it has been more difficult to obtain basic mortality salience effects, especially with internet-based samples (S. Solomon, personal communication, Feb. 4th, 2022).

While on the topic of COVID-19, it may also be worth examining whether or not the quest and vacation manipulations were too similar. It could be that, during the COVID-19 pandemic where many individuals were in "lockdown" conditions (either forced by local governments or self-imposed) that the idea of a vacation may have become even more appealing and existentially meaningful than it otherwise would have been. This would suggest that the vacation manipulation may have actually increased in potency to a level similar to the quest manipulation (or even potentially surpassed it). This idea is supported by a study conducted at Skidmore College in a laboratory setting (Yang, 2022).

Sylvia Yang sought to examine the relationship between mortality salience, vacation visualization, and gratitude. The study found that the idea of a vacation did indeed reduce DTA with those exposed to mortality salience as compared to those asked to imagine themselves in a gratitude related experience. Debriefing of participants at the end of the study revealed that many participants likened the idea of going on a vacation in the aftermath of a global pandemic to a life changing, existential event of great magnitude, full of gratitude and a sense of an epic journey.

This may help explain why the vacation conditioned seemed to outperform the quest condition, with respect to DTA, in the present study.

This study sought to examine if instilling a feeling of a heroic journey, a purposeful effort, or quest-like state of mind would buffer against death anxiety. There was an interesting, perhaps preliminary finding, with regard to this idea. When examining just the participants of the study who were exposed to the death prompts, there was a marginal difference ($p = 0.12$) between the control (literary prompt) participants ($M=1.15$) and those participants who underwent one of the two imagery exposures (vacation ($M=.74$) and quest ($M=.89$)). This suggests that there may be some buffer against death anxiety with those participants who imagined themselves going on a vacation or quest. In other words, imagining oneself on a purposeful journey, or on a relaxing break from the real world (i.e., vacation condition) may provide some relief when presented with death reminders.

Future Directions

There are several takeaways from the present study when thinking about moving forward with this research. First and foremost is the death anxiety effect. Ideally, the experiment in the present study would have been broken up into multiple parts where in the first part, the death anxiety induction would be proven within the desired medium (electronically) and population (college students) by designing a study independent of the visualization procedures to show proof of concept with the desired mortality salience induction. Once the death anxiety induction was shown to be effective, then the quest-like induction could have been examined to determine if there was any impact on death thought accessibility between groups. In the future, breaking up

a study seeking to examine quest-like states of mind and their impact on death anxiety would allow one to be more certain of the ability to test each hypothesis.

It is possible that the present study utilized quest and vacation imagery that was too similar in style and that the photograph used for the vacation imagery may have actually been more potent than that used for the questing condition. In future studies, it would be wise to choose imagery for the vacation condition that is perhaps more neutral, and imagery for the questing condition that is more potent. In other words, it could be argued that the imagery chosen for this study included a questing visualization that was a little more abstract, using an artistic style of imagery whereas the vacationing condition used a realistic imagery with the sun shining. It is possible that this difference in imagery may have made it easier for individuals to actually imagine themselves on a vacation versus imagining themselves on a quest.

Another possibility is that the idea of a quest is exceptionally difficult to visualize. The visualization induction in this study was based on the 2011 study "Finding Everland: Flight fantasies and the desire to transcend mortality," which encouraged participants to visualize themselves flying. This is perhaps a more easily obtainable fantasy for individuals to visualize than the idea of going on a purposeful quest. The visualization of questing may have been made increasingly difficult in that the population for the present study was young (M=18.6 years old) and younger participants may have a more limited background in classics where epic quests are commonplace.

It is also possible that the questing and vacation imagery exposures were not sufficient in length to produce the desired effect. The present study walked participants through using text prompts along with each accompanying picture 20 seconds at a time for a total of 80 seconds. In

future studies it may be wise to extend the length of time that participants are exposed to the imagery exercise to ensure that they are sufficiently immersed in the experience.

In a similar vein, it could be important in future studies to use vacation and questing induction that is stronger than an image with accompanying text. One possible example of this would be to have a video clip with voiceover showing an experience that would make it easier for participants to be immersed into a vacationing or questing mindset.

This study was meant to include a manipulation check at the end of the study to ensure that each participant was adequately attentive throughout the study. This was going to be accomplished by giving an open-ended question as well as two multiple choice questions ascertaining what each participant saw in their version of the experiment. Unfortunately, as an oversight, this manipulation check was left out of the online study. Future studies would ideally include some check to ensure that each participant was adequately attentive throughout the experiment.

With these proposed changes in mind for future directions in this area of study, with a properly developed and tested quest-like state of mind induction, it seems plausible that there could indeed be a buffer against existential anxiety – and this is still a hypothesis worth testing.

Conclusion

We live day-to-day with convenient opaqueness to death and our own mortality. We design rituals and make the passing of those we love special as a way to remember them, but also as a way to comfort ourselves when confronted with the reality that we too will eventually perish. When we are confronted (or when we confront ourselves) with the knowledge that we

cannot obtain literal immortality, we attempt to achieve symbolic immortality by passing along our legacy: e.g., in the form of children, an invention, or perhaps a great work of art.

As we develop and grow over the course of our lifetime, we discover ways to psychically tolerate the knowledge of our death and what it means to exist as a mortal creature. Whether or not this existential dilemma, this dread, can be warded off with a mindset that encompasses some greater existential purpose or quest, remains to be seen.

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Appendices

Appendix A: Informed Consent

Consent for Research Participation

Research Study Title: Personality Assessment

Researcher(s): Connor L. Smith, University of Tennessee, Knoxville
Timothy Hulsey, Ph.D., University of Tennessee, Knoxville

Why am I being asked to be in this research study?

We are asking you to be in this research study because we are interested in exploring how various different aspects of personality are related with students enrolled in undergraduate psychology courses.

What is this research study about?

The purpose of the research study is to examine how various different aspects of personality are related to one another.

How long will I be in the research study?

If you agree to be in the study, your participation will last for approximately 50-60 minutes.

What will happen if I say "Yes, I want to be in this research study"?

If you agree to be in this study, we will ask you to:

- Fill out brief demographic information
- Answer a free-response question
- Complete three questionnaires

What happens if I say "No, I do not want to be in this research study"?

Being in this study is up to you. You can say no now. Either way, your decision to participate or not will not affect your grades, your relationship with your instructors, or your standing with the University.

What happens if I say "Yes" but change my mind later?

Even if you decide to be in the study now, you can change your mind and stop at any time.

If you decide to stop before the study is completed, your information will be discarded and your responses will not be used for the purposes of this study.

Are there any possible risks to me?

The risks associated with this task are minimal, and no greater than one would encounter in daily life. You may stop participating whenever you like without penalty.

Are there any benefits to being in this research study?

We do not expect you to benefit from being in this study. Your participation may help us learn more about how personality characteristics are related. We hope the knowledge gained from this study will benefit others in the future.

Compensation

You will receive 1.0 SONA credits as compensation for your participation in this study. If you decide to discontinue the survey at any time, you will receive 0.5 SONA credits.

Who can see or use the information collected for this research study?

The records of this study will be kept private and will only be accessible by the primary researcher listed for this study (Connor Smith). Data collected from this study will be in no way associated with identifying characteristics of participants (e.g. name, e-mail address) and will be stored electronically.

If information from this study is published or presented at scientific meetings, names and other personal information will not be used.

Who can answer my questions about this research study?

If you would like to schedule a meeting to ask questions regarding the nature of this study prior to participating, please click the following link to schedule a time
https://calendly.com/csmit347/research-study-questions

If you have other questions or concerns about this study, or have experienced a research related problem or injury, contact the researchers, Connor Smith, **csmit347@vols.utk.edu**, 734-709-7505, Timothy Hulsey, **thulsey@utk.edu**.

For questions or concerns about your rights or to speak with someone other than the research team about the study, please contact:

Institutional Review Board
The University of Tennessee, Knoxville
Phone: 865-974-7697
Email: utkirb@utk.edu

STATEMENT OF CONSENT

I have read this form and the research study has been explained to me. I have been given the chance to ask questions and my questions have been answered. If I have more questions, I have been told who to contact. By signing this document, I am agreeing to be in this study. I will receive a copy of this document after I sign it.

Name of Adult Participant	Signature of Adult Participant	Date

Appendix B: Neuroticism Subscale of the Eysenck Personality Inventory

Personality Inventory

Please answer each question by circling either "Y" for yes or "No" following the question. There are no right or wrong answers, and no trick questions. Work quickly and do not think too long about the exact meaning of the question.

1. Does your mood often go up or down? Y or N
2. Do you ever feel "just miserable" for no reason? Y or N
3. Do you often worry about things you should not have done or said? Y or N
4. Are you an irritable person? Y or N
5. Are your feelings easily hurt? Y or N
6. Do you often feel fed up? Y or N
7. Are you often troubled about feelings of guilt? Y or N
8. Would you call yourself a nervous person? Y or N
9. Are you a worrier? Y or N
10. Do you worry about awful things that might happen? Y or N
11. Would you call yourself tense or "high strung"? Y or N
12. Do you worry about your health? Y or N
13. Do you suffer from sleeplessness? Y or N
14. Have you often felt listless and tired for no reason? Y or N
15. Do you often fell life is very dull? Y or N
16. Do you worry a lot about your looks? Y or N
17. Have you ever wished that you were dead? Y or N
18. Do you worry too long after an embarrassing experience? Y or N
19. Do you suffer from nerves? Y or N
20. Do you often feel lonely? Y or N
21. Are you easily hurt when people find fault with you or the work you do? Y or N
22. Are you sometimes bubbling over with energy and sometimes very sluggish? Y or N
23. Are you touchy about things? Y or N

Appendix C: Adult Attachment Inventory

Which of these best describes you feeling? (check one):

_____ I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting close to me.

_____ I am somewhat uncomfortable being close to others; I find it difficult to trust them completely and difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want to be more intimate than I feel comfortable being.

_____ I find that others are reluctant to get as close as I would often like. I often worry that my partner doesn't really love me or won't stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

Appendix D: PANAS-X

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate **to what extent you feel this way right now**. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

____ cheerful	____ sad	____ active	____angry at self
____ disgusted	____ calm	____ guilty	____ enthusiastic
____ attentive	____ afraid	____ joyful	____ downhearted
____ bashful	____ tired	____ nervous	____ sheepish
____ sluggish	____ amazed	____ lonely	____ distressed
____ daring	____ shaky	____ sleepy	____ blameworthy
____ surprised	____ happy	____ excited	____ determined
____ strong	____ timid	____ hostile	____ frightened
____ scornful	____ alone	____ proud	____ astonished
____ relaxed	____ alert	____ jittery	____ interested
____ irritable	____ upset	____ lively	____ loathing
____ delighted	____ angry	____ ashamed	____ confident
____ inspired	____ bold	____ at ease	____ energetic
____ fearless	____ blue	____ scared	____ concentrating
____ disgusted with self	____ shy	____ drowsy	____ dissatisfied with self

Appendix E: Questing Image



Appendix F: Vacationing Image



Appendix G: Literary Preference Questionnaire

Literary Preference Questionnaire

Please read the following short passage from a novel and answer the questions below it.

The automobile swung clumsily around the curve in the red sandstone trail, now a mass of mud. The headlights suddenly picked out in the night—first on one side of the road, then on the other—two wooden huts with sheet metal roofs. On the right near the second one, a tower of course beams could be made out in the light fog. From the top of the tower a metal cable, invisible at its starting-point, shone as it sloped down into the light from the car before disappearing behind the embankment that blocked the road. The car slowed down and stopped a few yards from the huts.

The man who emerged from the seat to the right of the driver labored to extricate himself from the car. As he stood up, his huge, broad frame lurched a little. In the shadow beside the car, solidly planted on the ground and weighed down by fatigue, he seemed to be listening to the idling motor. Then he walked in the direction of the embankment and entered the cone of light from the headlights. He stopped at the top of the slope, his broad back outlined against the darkness. After a moment he turned around. In the light from the dashboard he could see the chauffeur's black face, smiling. The man signaled and the chauffeur turned of the motor. At once a vast cool silence fell over the trail and the forest. Then the sound of the water could be heard.

The man looked at the river below him, visible soley as a broad dark motion flecked with occasional shimmers. A denser motionless darkness, far beyond, must be the other bank. By looking fixedly, however, one could see on that still bank a yellowish light like an oil lamp in the distance. The big man turned back toward the car and nodded. The chauffeur switched off the lights, turned them on again, then blinked them regularly. On the embankment the man appeared and disappeared, taller and more massive each time he came back to life. Suddenly, on the other bank of the river, a lantern held up by an invisible arm back and forth several times. At a final signal from the lookout, the man disappeared into the night. With the lights out, the river was shining intermittently. On each side of the road, the dark masses of forest foliage stood out against the sky and seemed very near. The fine rain that had soaked the trail an hour earlier was still hovering in the warm air, intensifying the silence and immobility of this broad clearing in the virgin forest. In the black sky misty stars flickered.

How do you feel about the overall descriptive qualities of the story?

1	2	3	4	5	6	7	8	9
not at all descriptive			somewhat descriptive				very descriptive	

Do you think the author of this story is male or female?

_____ male _____ female

Vita

Connor Smith was born in Ann Arbor, Michigan to Janet Smith and Barry Smith. He has one older brother, Graham, a sister-in-law Sara, and a niece Amalia. He attended Eastern Michigan University where he obtained his B.S. in secondary education (mathematics) and psychology. Upon graduating, he applied and was accepted to the University of Tennessee Knoxville Clinical Psychology Ph.D program under the mentorship of Dr. Michael R. Nash. After Dr. Nash retired, he sought and received mentorship from Timothy L. Hulsey. He currently resides in Troy, New York with his loving and supportive girlfriend Kelly Inglis and is completing his internship program at Albany Medical College. After graduating, he plans to continue with his clinical work and psychotherapy practice.