TERROR MANAGEMENT THEORY AND JUST WORLD BELIEFS: 
AN INTEGRATIVE APPROACH

Leticia Ramos Da Silva 
B.A., California State University, Sacramento, 2004

THESIS

Submitted in partial satisfaction of 
the requirements for the degree of

MASTER OF ARTS 

in 

PSYCHOLOGY 
(Counseling)

at 

CALIFORNIA STATE UNIVERSITY, SACRAMENTO 

SUMMER 
2009
Student: Leticia Ramos Da Silva

I certify that this student has met the requirements for format contained in the University format manual, and that this thesis is suitable for shelving in the Library and credit is to be awarded for the thesis.

Dr. Lisa M. Bohon

Department of Psychology
Abstract

of

TERROR MANAGEMENT THEORY AND JUST WORLD BELIEFS:
AN INTEGRATIVE APPROACH

by

Leticia Ramos Da Silva

Terror Management Theory (TMT) has been extensively studied within the realm of social psychology. This experiment aimed at extending TMT research by integrating Just World Beliefs (JWB) within the context of attribution of blame as assessed by a modified version of Hirschberger's Attribution of Blame scale. Specifically, culpability (innocent/culpable), mortality salience (present/absent), and belief in a just world (low/high) as measured by Rubin and Peplau's Just World Belief scale were examined to determine whether high just world believers tend to attribute high blame to innocent victims after a mortality salience induction. The participants were 156 undergraduates. JWB could not be included in analyses due to the scale's poor internal consistency. Remaining hypotheses were not supported by the findings. Contrary to expectation, subjects attributed high blame to guilty rather than innocent targets. In addition, MS did not predict participants' blame attribution.
ACKNOWLEDGEMENTS

I would like to acknowledge those persons in my life who believed enough in the value of obtaining an advanced degree in Psychology and, thus, extended their help and support throughout these last trying years.

I am indebted to my thesis committee chair, Dr. Rebecca Cameron, for her guidance and feedback. I am thankful to Dr. Lisa Harrison for her knowledge of social psychology in general and Terror Management Theory specifically. I am especially grateful to Dr. Larry Meyers, whose availability and expertise in statistical procedures were crucial to this project.

I am grateful to my two month-old daughter, Serena Ramos Da Silva, whose presence in my life has caused me to pursue the completion of this thesis project with added vigor and determination.

Lastly, thank you Pai Oxalá for shining your blessed light in my life, today, tomorrow, and always.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables</td>
<td>vii</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION ..............................................</td>
<td>1</td>
</tr>
<tr>
<td>The Problem and Purpose of this Study</td>
<td>1</td>
</tr>
<tr>
<td>Terror Management Theory and Research</td>
<td>4</td>
</tr>
<tr>
<td>Just-World Theory and Terror Management Theory</td>
<td>11</td>
</tr>
<tr>
<td>Current Study</td>
<td>20</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td>20</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>21</td>
</tr>
<tr>
<td>2. METHOD................................................................</td>
<td>23</td>
</tr>
<tr>
<td>Overview</td>
<td>23</td>
</tr>
<tr>
<td>Participants</td>
<td>23</td>
</tr>
<tr>
<td>Materials</td>
<td>24</td>
</tr>
<tr>
<td>Procedure</td>
<td>29</td>
</tr>
<tr>
<td>3. RESULTS .........................................</td>
<td>31</td>
</tr>
<tr>
<td>Overview</td>
<td>31</td>
</tr>
</tbody>
</table>
4. DISCUSSION .................................................................................................................. 33
   Priori Hypotheses .......................................................................................................... 33
   Conclusion ..................................................................................................................... 38

Appendix A. Consent Form ............................................................................................. 41
Appendix B. Debriefing Form ......................................................................................... 42
Appendix C. Demographic Questionnaire ....................................................................... 43
Appendix D. Belief in a Just World Scale ........................................................................ 45
Appendix E. Word Search Task ....................................................................................... 51
Appendix F. Mortality Salience Condition ....................................................................... 52
Appendix G. Control Condition ....................................................................................... 53
Appendix H. Reading Habits Survey ................................................................................ 54
Appendix I. Innocent Vignette ......................................................................................... 56
Appendix J. Culpable Vignette ......................................................................................... 67
Appendix L. Atribution of Blame Scale ........................................................................... 58

References ....................................................................................................................... 62
LIST OF TABLES

1. Table 1 Means and Standard Deviations for Study Variables of All Participants ......................................................... 32
Chapter 1
INTRODUCTION

The Problem and Purpose of this Study

Terror Management Theory (TMT) suggests that various superficially distinct forms of human behavior are motivated by the need to protect oneself against anxiety caused by the awareness of mortality. These behaviors operate to increase self-esteem and faith in a cultural worldview, both of which afford protection against anxiety. Because human beings are intelligent and self-conscious animals evolutionarily programmed for self-preservation, our ancestors unconsciously devised a solution for the problem of death (Pyszczynski, Greenberg, & Solomon, 1999). The resulting dual-component cultural anxiety buffer is comprised of (a) self-esteem — acquired through the conviction that one is meeting specified standards of value; and (b) a cultural worldview — humanly-created standards of value offering those who meet these principles an opportunity to transcend death in a literal or symbolic sense (Pyszczynski, Greenberg, & Solomon, 1999).

TMT research has traditionally focused on two basic hypotheses: (a) the anxiety-buffer hypothesis states that, to the extent that self-esteem provides protection against anxiety, it follows that strengthening self-esteem should function as an anxiety shield while weakening it should increase a person’s proneness to anxiety; and (b) the mortality salience (MS) hypothesis suggests that, to the degree that a psychological
structure (i.e., cultural worldview) provides protection against mortality-related anxiety, then mortality reminders should increase the need for the structure. In addition, under mortality salience, threats to this psychological structure should elicit negative reactions and endorsements of this structure should elicit positive reactions (Pyszczynski, Greenberg, & Solomon, 1999).

The initial motivator for the development of TMT was to explain individuals' need for self-esteem (Pyszczynski, Solomon, Greenberg, Arndt, & Schimel, 2004). Abundant research attests to the notion that self-esteem serves an anxiety-buffering function (Pyszczynski et al., 2004). There exists a negative correlation between self-esteem and anxiety levels and a positive correlation between self-esteem and the ability to cope with stress as well as measures of mental and physical health (Pyszczynski et al., 2004). Previous research also supports the anxiety-buffering function of self-esteem by demonstrating that increased self-esteem diminishes anxiety in response to stress (Harmon-Jones, Simon, Greenberg, Solomon, Pyszczynski, & McGregor, 1997).

While the current study offers a brief discussion of the self-esteem hypothesis of TMT, its principal focus is on the mortality salience (MS) hypothesis of the theory. Thus far, there have been over 300 studies conducted in 15 different countries offering support for this hypothesis (Cox, Goldenberg, Pyszczynski, & Weise, 2007). These experiments have demonstrated, for instance, that reminding persons of their own
death influences prejudice, prosocial behavior, stereotypical beliefs, risky behaviors, and aggression (Cox, et al., 2007).

While such investigations offer substantial evidence in support of TMT’s mortality salience (MS) hypothesis, these examinations fail to integrate other important theories within the realm of social psychology. Therefore, the present study sought to expand upon previously conducted TMT research by incorporating just world theory in the experimental paradigm (Hafer & Bègue, 2005). Originally developed by Melvin Lerner and Carolyn Simmons in 1966, just world theory introduces the human need to believe that the world is a just place where deservingness triumphs (Hafer & Bègue, 2005). Because it is difficult for individuals to accept the unpredictability existing in the world, the need to believe in a world where one meets his or her deserved fate functions as a mechanism against the anxiety created by this difficulty (Muller, Caldwell, & Hunter, 1994). Altering the perception one holds of victims or victims’ behaviors represents one such mechanism aimed at negotiating the inequities of the world (Muller, Caldwell, & Hunter, 1994). In this sense, victims are devalued and blamed for their misfortune so that deservingness prevails (Muller, Caldwell, & Hunter, 1994).

The present research empirically assessed individuals’ attribution of blame to accident victims. Level of victim blame was expected to vary based on three factors: 1) depicted level of accountability; 2) degree to which participants endorsed just world beliefs; and 3) whether or not participants had undergone a mortality salience
manipulation. The expectation was that increasing anxiety through manipulating mortality salience would result in higher victim blame among participants who endorsed strong cultural beliefs in a just world.

Terror Management Theory and Research

Social scientists have long been fascinated by the psychological encounter with death and its related emotions (Florian & Mikulincer, 1997). Two main trends are revealed following a detailed analysis of the historical development of this broad area of theory and research (Florian & Mikulincer, 1997). Thanatos psychology has emerged as the most salient trend during the past four decades (Florian & Mikulincer, 1997). It principally focuses on the exploration of the complex nature of the fear of death experienced by humans as a dependent variable potentially influenced by a host of sociological and psychological factors (Florian & Mikulincer, 1997). Terror Management Theory (TMT) constitutes a new theoretical forum developed by social psychologists who became involved in the study of the encounter with death as an independent variable capable of having important consequences for a vast array of behaviors, cognitions, and social attitudes (Florian & Mikulincer, 1997).

TMT focuses on the psychological mechanism human beings utilize in dealing with the conscious and unconscious awareness of their own finitude through death (Osborn, Johnson, & Fisher, 2006). According to this theory, the unique human qualifications of self-reflection, future anticipation, and causal analysis lead to the realization of one's own vulnerability and unavoidable finitude, which, in turn, are
emotionally experienced as terror and anxiety (Florian & Mikulincer, 1997). TMT is based on the writings of Ernest Becker who suggested in *Denial of Death* (1973) that the terror of death is an important motivator for humans and heroism amounts to a response to such terror (Munley & Johnson, 2003). Becker believed that the terror or fear of death is universally experienced and continuously influences individuals’ ordinary behaviors as a component of the self-preservation program intrinsic to human beings (Munley & Johnson, 2003). Becker viewed human beings as occupying the precarious existential position of being animals intrinsically motivated to perpetuate life while possessing an awareness of the futility of their efforts due to their comprehending the inevitability of their death (Arndt, Routledge, & Goldenberg, 2006). In addition, Becker suggested that the psychological defense mechanism of repression allows for removal of the fear of death from awareness so that normal functioning is possible (Munley & Johnson, 2003). Additionally, TMT assumes that because all life evolved from simple to complex forms, all life must have a common factor (Schimel, Hayes, Williams, & Jahrig, 2007). Otto Rank (1936/1945) named this common factor the *life force*, an intrinsic drive for continued and prosperous existence (Schimel et al., 2007). As human beings share their origins with other animals, human beings possess a strong survival instinct (Schimel et al., 2007). The unique intellectual abilities afforded to human beings grant the species a unique awareness of its inescapable mortality (Schimel et al., 2007).
In order to minimize the terror of death, individuals create immortal cultural symbols representing the very transcendence of death these persons are inescapably denied (Munley & Johnson, 2003). Becker stated that culture constitutes a belief system affording its members the symbolic representation of immortality through adherence to its dictates (Munley & Johnson, 2003). Maxfield and colleagues (2007) identify cultural worldviews as humanly created linguistic constructions necessitating consensual validation. The authors suggest that confidence in a particular worldview is increased when there is a consensus regarding such worldview, so that others agree with the worldview, behave according to its standards, and positively view its adherents. In contrast, worldview distrust decreases faith in a particular structure, thus instilling disagreement with its mandates, behavioral violation of its standards, and negative viewing of its members. Additionally, the human striving to maintain faith in a particular cultural worldview arises as a mechanism against the fear and anxiety created by the realization of one's own mortality. Finally, Maxfield and colleagues (2007) state that adherence to internalized versions of the cultural worldview affords human beings the belief that they possess enduring significance, which, in turn, enables individuals to attain a sense of personal value and self-esteem.

Specifically, human beings successfully mitigate the fear of death through the creation and maintenance of a dual-component anxiety buffer comprised of self-esteem and a cultural worldview (Schimel et al., 2007). Individuals obtain a sense of personal significance (i.e., self-esteem) when meeting the standards defined by beliefs
about the nature of reality and the designation of morals and values (i.e., cultural worldview) (Schimel et al., 2007). According to TMT, when confronted with reminders of death, individuals react with attempts at maintaining or enhancing their self-esteem and defending or validating their cultural worldview (Wakimoto, 2006). The effects of mortality salience (MS) appear to be specific to the problem of an individual’s own death as opposed to contemplation of another person’s finitude (Pyszczynski, Greenberg, & Solomon, 1997).

Since the 1980s, the experimental social psychologists Sheldon Solomon, Jeff Greenberg, and Tom Pyszczynski have been developing and empirically testing TMT (Munley & Johnson, 2003). This research program is derived from two basic TMT hypotheses: (a) enhancing self-esteem reduces anxiety in response to threat; and (b) mortality induction activates the need to maintain faith in individuals’ cultural worldview (Munley & Johnson, 2003). The first twenty years of TMT research mainly focused on the potential of culturally sanctioned ways of obtaining a lasting sense of meaning and value to assuage the paralyzing terror instilled by non-conscious death-related cognition (Arndt, Routledge, & Goldenberg, 2006). This initial research centered on explaining how individuals minimize the potential for anxiety derived from awareness of their own finitude via symbolic defenses that utilize cultural systems of value and meaning (Arndt, Routledge, & Goldenberg, 2006). Of importance, these symbolic defenses have been demonstrated to occur when death-related cognition is accessible but not conscious (Arndt, Routledge, & Goldenberg,
Accordingly, in recent years, TMT investigations have sought to understand more proximal or direct defenses against conscious mortality concerns (Arndt, Routledge, & Goldenberg, 2006). This contemporary scientific perspective suggests that individuals alleviate conscious concerns with death by eliminating the inevitable threat of death from focal attention (Arndt, Routledge, & Goldenberg, 2006).

From the perspective of TMT, MS induces higher attribution of blame as a result of death contemplation and the subsequent increase in the need for protection afforded by individuals’ cultural worldviews (Maxfield et al., 2007). Individuals who violate moral standards discredit the validity of the cultural principles and the worldview from which such principles originate (Maxfield et al., 2007). Previous research demonstrates that TMT affects several socially meaningful behaviors, such as stereotyping (Schmiel et al., 1999) and aggression (McGregor et al., 1998). MS inductions have been demonstrated to distinctively impact social interactions, as opposed to induction of aversive thoughts from different precedents (Maxfield et al., 2007). For instance, effects observed following MS induction do not occur after thoughts of dental pain, paralysis, social exclusion, or the demise of a loved one (Cox, Goldenberg, Pyszczynski, & Weise, 2007). Reminders of one’s mortality are associated with individuals’ increased defensiveness and decreased tolerance toward dissimilar others (Maxfield et al., 2007). Mortality salience leads to increased worldview defense without impacting individuals affectively (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). Moreover, MS effects have been
verified across different localities and varied cultures, such as in Italy, Turkey, Korea and Australia (Maxfield et al., 2007).

The problem of death-related symbolic defenses is addressed by an extension of TMT referred to as the dual-process theory of proximal and distal defenses (Pyszczynski, Greenberg, & Solomon, 1999). The theory specifies different defensive systems that focus on conscious and unconscious aspects of the issue of death (Pyszczynski, Greenberg, & Solomon, 1999). Proximal defenses deal with conscious thoughts of death, entailing either cognitive distortions that eliminate the problem of death from the present time or immediate future or active suppression of death-related thoughts (Pyszczynski, Greenberg, & Solomon, 1999). Distal defenses target unconscious mortality-related cognitions through emphasis on viewing the self as a valued contributor to one’s meaningful universe (Pyszczynski, Greenberg, & Solomon, 1999). Although human beings are inevitably aware of their will to live and react emotionally to the thought of their own death, TMT research indicates that it is the accessibility of mortality-related cognitions rather than the direct emotional experience of death-related anxiety that drives the thoughts and behaviors constituting terror management defenses (Pyszczynski, Greenberg, & Solomon, 1999). Individuals are able to manage the potential for experiencing terror without requiring the actual experience of terror (Pyszczynski, Greenberg, & Solomon, 1999).

As TMT suggests human social motivation to be anchored in evolutionary psychology, the majority of criticisms directed at the theory have to do with aspects of
TMT that do not align well with evolutionary psychology (Buss, 1997). For instance, by strongly directing TMT toward anxiety regulation, theory proponents fail to establish vital connections to actual problems of adaptation that must be resolved if the mechanisms proposed by TMT are to be deemed adaptations (Buss, 1997). The term adaptation is precisely defined in evolutionary biology as an organic structure or mechanism whose evolution occurred due to its ability to solve a specific survival or reproductive problem over the course of human evolution (Buss, 1997). In this sense, TMT sponsors successfully predict the contexts in which the psychological mechanisms specified by the theory will be activated (Buss, 1997). Nonetheless, TMT becomes rather vague in its proposal of cognitions whose sole aim is to combat the terror of death (Buss, 1997). This failure of connecting TMT with actual external problems of adaptation – such as detecting cheaters in social dealings with others, raising offspring, or protecting the self against hostile forces – renders the theory disconnected from potential sources of understanding of the adaptive function of anxiety (Buss, 1997).

Other scholars have criticized TMT’s indistinct definitions of key theoretical concepts, such as the cultural worldview anxiety buffer (Baron, 1997). Reuben M. Baron (1997), for instance, poses a number of meaningful questions such as: is the cultural worldview a measurable concept? Does it refer to a schema of beliefs, values, and attitudes able to be primed and manipulated? A related concern refers to the anxiety-buffer hypothesis’ proposition that the cultural worldview acts in agreement
with the desire for continued life, as TMT suggests this to be the most basic human motive. Baron (1997) also asks what is the motive when a person voluntarily risks his or her life in order to save the life of another individual? Moreover, the author inquires if TMT incorporates prosocial behavior as a relevant concept? In the case of the person who willingly endangers his or her life to spare the life of another, research on prosocial motivation speculates that the martyr's actions serve to avoid anticipated guilt and shame, or perhaps to gain rewards such as admiration and praise, or, alternatively, reflects misjudgment of the consequences of their actions within the circumstances (Batson, Fultz, & Schoenrade, 1987).

Several authors have speculated about the influence of personality variables (besides self-esteem, already a target of scientific investigation within the context of the theory) on the psychological mechanisms proposed by TMT (Paulhus & Prapnell, 1997). Social justice, for instance, in the form of just world beliefs, constitutes a personality variable of relevance in this context. In this case, just world beliefs represent a personality variable manifesting itself as adherence to a specific worldview and, thus, suitable for measurement. Perceived social justice within the framework of TMT is the issue examined next.

Just-World Theory and Terror Management Theory

In 1966, Melvin Lerner and Carolyn Simmons published a groundbreaking article addressing the issue of negative reactions to others as motivated by a concern with justice (Hafer & Bègue, 2005). In their study, Lerner and Simmons successfully
demonstrated that individuals acted compassionately toward innocent victims when effective compensation was believed possible (Hafer & Bègue, 2005). When, however, it was understood that victims could not be alleviated from their suffering, people engaged in harsh judgment of the victims (Hafer & Bègue, 2005). Both empathic and negative reactions to others were interpreted by the researchers as relating to the human need to perceive the world as just (Hafer & Bègue, 2005).

Melvin Lerner and David Miller (1978) explain that individuals have a need to believe that they live in a world where people generally meet their deserved fate. Such a belief in a just world affords individuals the ability to confront their physical and social environment as though these were stable and orderly. The authors further contend that the absence of such belief would amount to an obstacle for the individual to commit himself to pursuing long-term objectives and to regulate his or her daily behavior.

The phrase “belief in a just world” was originally intended to be used as a metaphor instead of a psychological construct (Lerner, 1997). Just-world theory hypothesizes about the function of the need to believe in a just world in the development of a justice motive (Hafer & Bègue, 2005). The psychological processes and structures activated by such need include the creation and automatic utilization of stable cognitive frameworks for organizing one’s experiences and the internalization of goal-related schemas formed early in one’s development (Lerner, 1997). Parallel to the above described process there is a conscious adoption of societal norms and
values, as well as the need to ensure a stable, controllable, and benign environment in
which one exists (Lerner, 1997). Belief in a just world implies a reorganization of
one’s cognitions whenever there is a discrepancy between a person’s characteristics or
actions and their corresponding outcomes (Correia & Vala, 2003).

Previous investigations of human values aimed at identifying value domains
have yielded a theoretical orientation of basic requirements believed to be intrinsic to
human beings, namely to meet biological needs, to achieve organized social
interaction, and to satisfy institutional demands for social welfare and survival
(Feather, 1991). Just world beliefs are assumed to possess adaptive and defensive
functions as these beliefs restrict impulses deemed personally and socially
unacceptable (Feather, 1991). Therefore, the construct reflects not only the effects of
common socialization experiences within a culture, but, also, the operation of shared
underlying motivational dynamics (Feather, 1991).

Empirical studies demonstrate that the degree of just world belief represents
an individual-difference variable measurable by self-report instruments and correlating
to multiple criteria, such as personality characteristics (Hafer & Bègue, 2005). This
justice motive exists due to individuals’ need to maintain their personal contract
(Hafer & Bègue, 2005). As children naturally develop, they learn to delay gratification
of their immediate impulses in order to invest in better outcomes requiring longer term
commitments, a process characterized by features of an emerging contract (Hafer &
Bègue, 2005). By virtue of the child’s compliance with such a contract he or she
expects to receive certain outcomes, thus developing an increased sensitivity to deservingsness (Hafer & Bègue, 2005). But the personal contract is only sensical to the extent that the individual exists in a just world where each person’s fate is regulated by such deservingsness (Hafer & Bègue, 2005). This perspective implies that the experiences of others constitute important indicators of justice in the world, therefore strengthening or weakening one’s commitment to his or her personal contract (Hafer & Bègue, 2005).

Rubin and Peplau (1975) developed an instrument designed to measure individual differences concerning the extent to which individuals believe in a just world (Lench & Chang, 2007). The resulting Just World Scale (JWS) views just world beliefs as a unidimensional trait, ranging from acceptance to rejection of the belief that the world is a fair and just place (Lench & Chang, 2007). Rubin and Peplau’s (1975) instrument is somewhat controversial because it measures just-world beliefs as a unidimensional characteristic (Ambrosio & Sheehan, 1990). Critics of the scale contend that the construct is multidimensional in nature instead (Ambrosio & Sheehan, 1990). Despite such debate, the JWS continues to represent the most widely utilized instrument measuring just-world beliefs. Moreover, it is agreed upon that these beliefs are related to other constructs such as increased well-being, effective coping, and reduced negative emotions (Lench & Chang, 2007). Previous research employing the JWS supports the conclusion that belief in a just world positively correlates with conservative social attitudes, deference to authority, and conformity to
the rules of groups, institutions, and society (Feather, 1991). The more an individual believes in a just world, the higher the tendency for justice-motivated reactions (Dalbert, 2002).

Most research on just world beliefs has been conducted within the context of the value of fairness (Tanaka, 1999). Validity research concerning the JWS indicates that strong just-world believers, compared with weak believers in a just world, negatively evaluate unfortunate individuals (Tanaka, 1999). High scorers on the instrument display no sympathy toward suspects in criminal cases, AIDS patients, or the economically disadvantaged (Tanaka, 1999). Shaver (1970) proposed the existence of a defensive attribution in order to attempt to explain the above described behaviors (Tanaka, 1999). As such, it is proposed that strong just-world believers attribute an individual's misfortune to his or her internal characteristics, thus dismissing possible external causes for their suffering (Tanaka, 1999). Self-serving bias, or beneffectance, on the other hand, consists of individuals' attribution of their good fortune to internal causes and their misfortune to external causes (McCrea, 2007). This above pattern is not observed in relation to the outcomes of others, such as in attribution of blame (McCrea, 2007). The unfortunate individual is viewed as socially unworthy, therefore strengthening the believer's attribution of their own value to his or her culture (Tanaka, 1999). It follows that high believers in a just world aim at protecting their cultural worldview from the threat of unfairness as experienced by others. Therefore, a strong belief that the world is a just place affects judgments about fair and unfair
events (Tanaka, 1999). For instance, high just-world believers may engage in increased victim-blaming, as opposed to low just-world believers, as the former attempt to defend their belief in social justice as a representation of true fairness. Just world belief may, therefore, constitute a version of fairness as an integrating component in an individual’s cultural worldview.

Injustice, either observed or experienced, threatens the belief that justice is prevalent in the world (Dalbert, 2002). Therefore, individuals high in just world beliefs attempt to restore such justice either psychologically or in actuality (Dalbert, 2002). Just world beliefs provide individuals with a meaningful frame within which to interpret the events of their lives (Dalbert, 2002). Unfairness which is experienced and/or observed and cannot be resolved in reality undergoes an attempt to be assimilated into the individual’s belief in a just world (Dalbert, 2002). This may be accomplished by justifying the experienced and/or observed injustice as at least partly self-inflicted, by minimizing the injustice, and by avoiding self-focused reflections (Dalbert, 2002). Just world belief is an essential factor in determining individuals’ orientations toward unfairness (Hunt, 2000). Specifically, the belief that (1) individuals receive what is deserved based on their moral qualities or actions and (2) through proper and responsible behavior persons can reduce the likelihood of negative events befalling them (Hunt, 2000).

It follows that individual differences concerning belief in a just world relate to individuals’ focus on long-term commitments and the desire to achieve goals through
socially endorsed means: The higher the tendency to preserve a sense of justice before contradictory evidence, the higher the need to believe in a just world (Hafer & Bègue, 2005). Current research suggests that individual differences in just world beliefs are related to lower levels of negative emotions and higher levels of positive emotions before negative events (Hafer & Correy, 1999). As unfair outcomes threaten the belief in a just world, discomfort (i.e., dissonance) is experienced by the individual who is motivated to reduce it by adjusting his or her perspective of persons or situations (Hafer & Correy, 1999). Blaming victims for their misfortune represents a defensive strategy with the aim of achieving cognitive equanimity (Hafer & Correy, 1999). Just world beliefs are regarded as meaning structures representing overall goals (IJzerman & van Proijen, 2008). Threats can terrorize the minds of individuals who lack clear goals whereas those capable of protecting themselves from just-world threats maintain clarity in their goal concepts (IJzerman & van Proijen, 2008). The notion that individuals must believe in a just world implies that these same persons must be able to cope with evidence of injustice (Hafer & Bègue, 2005). Attribution explains the events behind a specific outcome (McCrea, 2007). Blaming innocent victims for their misfortune amounts to a non-rational strategy for coping with the problem of perceived injustice (Hafer & Bègue, 2005).

A considerable amount of research has been conducted on the human tendency to ascribe blame for unfortunate life events to the victims of the misfortune (Muller, Caldwell, & Hunter, 1994). In this sense, blaming the victim amounts to localizing
both the source of the problem and its solution to the sufferer of the unfortunate event (Muller, Caldwell, & Hunter, 1994). Devaluing and blaming victims for their misfortune through altering one’s perception of the victim or the victim’s behavior allows individuals to protect their notion of a just world (Muller, Caldwell, & Hunter, 1994). Several studies conducted on the relationship between attribution of blame and just world beliefs indicate that as just world beliefs increase so does the tendency to ascribe blame to victims regardless of the latter’s culpability (Muller, Caldwell, & Hunter, 1994). A logical response for just world believers is to deem that a victim merits his or her fate, thus changing the perception of the former’s vulnerability (IJzerman & van Prooijen, 2008). Research on gender differences regarding attribution of blame and just world beliefs, for instance, posits that women are more likely to blame women victims as a result of the former’s need to feel in control of otherwise uncontrollable situations and to distance themselves from the victims (Brems & Wagner, 1994). Women may blame the victims because of their belief in a just world, therefore guarding themselves against the possibility of injury in an unjust society (Brems & Wagner, 1994). Similarly, men who are high believers in a just world attribute increased blame to crime victims than their counterparts who are low just world believers (Brems & Wagner, 1994).

The incorporation of a justice motive into TMT occurs through speculating that some of the effects found in terror management studies are due to the need to believe in a just world following death confrontation (Hafer & Bègue, 2005). Increased
worldview defense under MS conditions, for instance, may indicate individuals' tendency to emphasize deservingness within the framework of just world-theory and/or to ensure that social justice norms are upheld (Hafer & Bègue, 2005). Blaming the victim of misfortune and convincing oneself that one would have acted differently in similar circumstances comprise an attempt to restore faith in a controllable and just world (Idisis, Ben-David, & Ben-Nachum, 2007). High just-world believers should experience more discomfort under mortality salience conditions than those individuals low in just world beliefs due to the discrepancy between their beliefs and the experienced event (Hafer & Correy, 1999). Also, these behaviors may occur as a direct result of the perceived injustice that death thoughts elicit (Hafer & Bègue, 2005). Previous TMT research focused on explaining the counterintuitive behaviors of individuals who engaged in life-threatening behaviors under MS conditions as an attempt to preserve some semblance of a belief in a just world by proving their invulnerability to death (Hafer & Bègue, 2005). Another explanation refers to these individuals' efforts toward ensuring that their own death would adhere to the notion of deservingness (i.e.: their death occurred as a result of their engaging in risky behaviors) (Hafer & Bègue, 2005).

In addition, from the perspective of TMT the need to believe in a just world occurs due to such conception making emotional equanimity possible (Pyszczynski, Greenberg & Solomon, 1997). Self-esteem is able to provide its anxiety-buffering function in a just world where the virtuous is exempt from undeserved suffering
(Pyszczynski, Greenberg & Solomon, 1997). Furthermore, just world beliefs are interpreted as part of a cultural worldview that provides protection against the terror of realizing one’s own finitude (Pyszczynski, Greenberg & Solomon, 1997). Such cultural worldview ought to be consistent to serve as a buffer against the fear of death and reminders of mortality should therefore strengthen the desire to possess worldview-consistent beliefs (Friedman & Arndt, 2005).

Current Study

The present investigation utilized Terror Management Theory (TMT) as the basis for explaining the impact of Mortality Salience (MS) on attribution of blame according to Just-World Belief Theory.

Hypothesis 1:

As supported by Hirschberger (2006), when mortality salience is present and the victim is innocent, attribution of blame will be increased. The anxiety-buffering hypothesis proposes that to the extent that a psychological structure provides protection against anxiety, then anxiety reminders should lead to an increased need for that structure and, thus, more positive reactions to endorsing factors and more negative reactions to threatening factors (Pyszczynski, Greenberg, & Solomon, 1999). In exaggerating the actor’s culpability, observers attempt to fulfill their need to feel safe and defend their beliefs. In this case, mortality salience induction activates the need to engage in blame attribution as the latter serves as a buffer against the anxiety created by the realization of one’s mortality. According to the culpable control model (Alicke,
2000, as cited in Hirschberger, 2006), when observers are motivationally biased they process information in a blame-validation mode. In this case, motivation arises from the need to deny observers’ own finitude under mortality salient conditions.

According to justification ideologies (Crandall, 2000), non-injured observers devise elaborate rationalizations that serve not only to create a physical and psychological chasm between observer and victim, but, also, to provide explanations for why victims have earned their fate and deserve their suffering. As such, victims who are severely and irreversibly injured pose a unique quandary to non-injured observers, as the observing persons experience ambivalent feelings toward the misfortunate victims (Hirschberger, 2006). The need to perceive the world as just compels non-disabled observers to blame victims for their misfortunes, as such blaming shields the former from the realization that he or she could assume the role of the latter (Hirschberger, 2006). It follows, then, that a severely injured victim must be deserving of his or her fate, otherwise, injustice would pervade the observer’s world perception.

Hypothesis 2:

There will be a three-way interaction under mortality salience conditions where innocent victims will elicit highest attribution of blame from participants scoring high on just world beliefs. The relevant literature indicates that individuals differ on their belief in a just world (Hafer and Bègue, 2005). In agreement with just world theory, people develop such general justice motive for a number of reasons,
with the most unique and specified being the need to believe in a just world in order to maintain their personal contract (Hafer & Bègue, 2005). As children, individuals agree to withhold their immediate impulses and, instead, vie for long-term gratification, a movement which forms the basis for expected outcomes – rewards the child feels deserving of given his or her postponement of self-fulfillment (Hafer & Bègue, 2005). The ensuing sensitivity to deservingness demands that the world be a just place so that the child’s personal contract may be suitably honored (Hafer & Bègue, 2005). This perspective implies that the fate of others functions as an indicator of deservingness, that is, as these persons are members of one’s world, individuals must be deserving of their fate (Hafer & Bègue, 2005).
Chapter 2

METHOD

Overview

The present study employed a 2 x 2 univariate between-subjects design. The independent variables included culpability (innocent/culpable) and mortality salience (present/absent). The dependent measure consisted of attribution of blame (innocent/guilty). Additionally, belief in a just world was measured albeit not included in the analyses, as the scale utilized in the present study was not reliable.

Participants

One hundred fifty six introductory psychology students from a Northern California public university participated in this investigation and received one hour of research credit toward a university requirement. Data were collected on 160 students; however four participants were omitted from this study due to incomplete questionnaires (final $N = 156$).

Participants ranged in age from 17 to 56 years ($M = 21.6$, $SD = 5.8$). There were 121 females (76%) and 38 males (24%). Ethnic diversity was present in this sample which contained participants of Caucasian/White/European American (53%), Asian/Pacific Islander/Asian American (21%), Black/African American (9%), Latino(a)/Hispanic/Hispanic American (7.5%), multiethnic (4%), foreign national
(2.5%), other ethnicity (1.5%), and American Indian/Native American (1%) backgrounds.

A majority of this sample reported English as a first language (78%). Additionally, most participants described themselves as single (52.5%), followed by being single in a committed relationship (37%), married (6%), divorced (1%), in a domestic partnership (1%), or other/non-specified (1%).

Finally, the majority of participants reported Christianity (40%) as their religious orientation, followed by Catholicism (26%), Atheism (16%), other/non-specified (4%), Sikh (3%), Hinduism (2.5%), Buddhism (2.5%), Islam (2%), Agnostic (1%), and Shamanism (1%).

Materials

Consent and Debriefing Forms

The consent form (Appendix A), developed by the author, provided information about the study, the expectations of the participants during the investigation, the risks and benefits of involvement, and a statement that the participants could discontinue participation at any time without incurring penalty. The debriefing form (Appendix B), created by the author, contained information about the true purpose of the investigation, provided theoretical and empirical background information with a reference, contact information for the investigator, and information about obtaining psychological services, if necessary.

Demographic Questionnaire
The demographic questionnaire (Appendix C) was developed by the author to gather information about the study participants' age, gender, ethnicity, language, relationship status, and religious orientation.

*Belief in a Just World*

In an attempt to measure participants' belief that the world is just, the present investigation utilized Rubin and Peplau's (1975) *Belief in a Just World* scale. This instrument consists of 20 items (nine of which are reverse-scored) to which participants must respond by indicating their level of endorsement on a 7-point Likert scale (Hafer & Bègue, 2005). Sample items include “Basically, the world is a just place” and “Crime does not pay”. While studies indicate the scale possesses a great deal of face validity, critics of the instrument argue for its low reliability and multidimensional and unstable factor structure (Hafer & Bègue, 2005). Because newer just-world scales are also plagued by measurement issues, besides enjoying less popularity than Rubin and Peplau's (1975) instrument (Hafer & Bègue, 2005), this investigator opted to utilize the latter means for assessing belief in a just world (Appendix D).

*Word Search Task*

In order to neutralize study participants' feelings following administration of the *Belief in a Just World* scale (Rubin & Peplau, 1975), participants will be asked to complete a word search task (Appendix E).
Mortality Salience

Mortality Salience (MS) was manipulated through the use of an adaptation of *The Projective Life Attitude Assessment* (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989) containing the following two open-ended prompts: “Please describe the emotions that the thought of your own death provokes in you,” and, “Write, as specifically as you can, what you believe will happen to you as you physically die and once you are physically dead” (Appendix F). In the control condition, participants were presented with the following parallel questions regarding dental pain: “Please describe the emotions that the thought of dental pain provokes in you,” and, “Write, as specifically as you can, what you believe will happen to you as you physically experience dental pain and once you have physically experienced dental pain” (Appendix G).

Mortality Salience Delay

Previous research suggests that mortality salient effects are enhanced following a period of delay and distraction (Pyszczynski, Greenberg, & Solomon, 1999). Accordingly, in the present study a survey examining reading habits (Appendix H) was administered to participants following the mortality salience manipulation in order to delay and distract the participants before assessment of the dependent measures.

Culpability
According to Alicke's (2000) *culpable control model*, motivationally biased observers process information in a *blame-validation mode*. In exaggerating the actor's culpability, observers attempt to fulfill their need to feel safe and defend their beliefs. Similarly, Terror Management Theory (TMT) accounts for observers' responses to victims as a function of the former's perceived threat to their beliefs about a just world and the need to safeguard their own physical integrity (Hirschberger, 2006). Victims who are innocent threaten observers’ belief in justice in the world as these unfortunate persons are not deserving of their fate (Hirschberger, 2006). Additionally, innocent victims remind observers of their own vulnerability and of the fragility of their physical integrity (Hirschberger, 2006).

The literature concerning reactions to victims suggests that upon encounter with a victim, especially if injuries are conspicuous and deemed serious, individuals react with discomfort and relief that they are not occupying the place of the victimized person (Hirschberger, 2006). Victims who are severely and permanently injured elicit ambivalent feelings from non-injured observers (Hirschberger, 2006). Reactions to victims such as ignoring, shunning, and distancing are supported by observers’ *justification ideologies* which attempt to make sense of the victim’s fate based on the latter being deserving of the encountered demise (Hirschberger, 2006).

The current study presented participants with vignettes depicted as based on fact (i.e., newspaper excerpts) with omission of the identity of the person portrayed in each vignette (i.e., to protect the person's identity). The actor was depicted as the
victim of an automotive accident where he incurred severe physical injury (i.e.,
amputation of both legs)

In order to manipulate culpability, half of the vignettes presented to research
participants depicted an innocent actor (i.e., driving at normal speed) (Appendix I) and
the other half described a culpable individual (i.e., driving at high speed) (Appendix
J).

Attribution of Blame

In order to measure the extent to which study participants attributed blame to
the victims featured on the vignettes, this study employed a six-item Attribution of
Blame scale. The scale utilized in this investigation is adapted from Hirschberger's
(2006) study on attribution of blame to innocent victims. In his sample, the internal
consistency of the scale was high with a Cronbach’s alpha of .86. While the structure
of Hirschberger’s (2006) scale was preserved, its content was modified in order to suit
the vignettes employed in the present investigation (“KB is to blame for his
condition”; “KB could have done more to avoid his condition”; “The difficulties KB
experiences on Highway 16 are his own fault”; “KB is a victim of circumstances he
has no control over”; “KB is responsible for ending up like this”; “KB’s vehicle
accident experience is the result of bad luck”). A 7-point Likert scale, ranging from 1
(strong disagreement) to 7 (strong agreement) measured participants’ responses to the
vignettes (Appendix L). As in Hirschberger’s (2006) investigation, higher scores are
indicative of greater attribution of blame.
Procedure

Participants were recruited from introductory psychology courses at a Northern California public university and tested in groups of one to eight participants by the author. At each testing session, the study was briefly explained, the consent form reviewed, and participants were advised that they could discontinue participation at any time without penalty other than loss of course credit. All participants signed and returned the consent form. Volunteers were encouraged to carefully read the directions on how to complete each questionnaire and task contained in the study. Additionally, the author verbally instructed participants through every step of the testing session. Participants were given a packet of questionnaires. In order to preserve the anonymity of participants, packets were labeled with an identification number subsequent to distribution. Each packet included, in the following order, the demographic questionnaire (author), the Just-World Belief scale (Rubin & Peplau, 1975), and the word search task (author). Following, depending upon randomly assigned condition, participants received either the Mortality Salience question or the control question. These questions are an adaptation of The Projective Life Attitude Assessment (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989) and concern participants’ feelings regarding the thought of their own death in the MS condition and similar questions regarding dental pain in the control condition. As previous research suggests that MS effects are attenuated following a period of delay and distraction (Pyszczynski, Greenberg, & Solomon, 1999), participants then completed a survey
examining their reading habits (author). After that, the current study presented participants with vignettes depicted as based on fact (i.e., newspaper articles) with omission of the identity of the person portrayed in each vignette (i.e., to protect the person's identity). The actor is depicted as the victim of an automotive accident where he incurs severe physical injury (i.e., amputation of both legs). Based on random assignment, in order to manipulate culpability half of the vignettes presented to research participants depicted an innocent actor (i.e., driving at normal speed) and the other half described a culpable individual (i.e., driving at high speed). Subsequently, participants received the Attribution of Blame scale (adapted from Hirschberger's, 2006). Responses to the six items in this scale are measured on a 7-point Likert scale ranging from 1 (strong disagreement) to 7 (strong agreement). A reading comprehension check was also presented to study participants as an integral part of the above-described instrument. Finally, participants were given a debriefing form describing the background information, the intent and true purpose of the research, and contact information for the author and psychological services. Any questions presented by the participants were answered. The study took participants approximately sixty minutes to complete.
Chapter 3

RESULTS

Overview

Rubin and Peplau (1975) reported individual item score means for their just world belief (JWB) scale between 3.59 and 4.42. These means were adjusted from the authors' six-point scale to the seven-point scale that was used in the current investigation. Other authors reported scale means between 4.42 (adjusted from a six-point scale to a seven-point scale) (Merrifield & Timpe, 1973) and 4.49 (adjusted from a four-point scale to a seven-point scale) (Hunt, 2000). The current investigation found a scale mean score of 4.23. Although the score in this study corresponded to the scores reported in the literature, the internal consistency of the instrument remains low.

Coefficient alpha for the present sample was .49, which indicates poor scale reliability. Due to the low reliability of this scale, just world beliefs was not included in the final statistical analyses of the present investigation. On the other hand, coefficient alpha for the attribution of blame scale utilized in this study was .94, thus indicating excellent scale reliability.

A 2 x 2 between-subjects analysis of variance (ANOVA) was performed for culpability (innocent/culpable) and mortality salience (present/absent). Attribution of blame (innocent/guilty) served as the dependent measure.
The only significant effect was the main effect of culpability, 
\[ F(3, 156) = 496.82, p < .05. \] The eta square associated with this effect was determined to be \( .76 \). Targets who were innocent \( (M = 2.65, SD = 1.01) \) elicited less blame than targets who were culpable \( (M = 5.82, SD = .75) \). Cohen’s \( d \) was computed to be \( 3.56 \), an effect size that is considered large (Cohen, 1988). Means and standard deviations for culpability are presented in Table 1.

Table 1.

_Means and Standard Deviations for Culpability_

<table>
<thead>
<tr>
<th>Study Variable</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innocent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS Present</td>
<td>2.66</td>
<td>.94</td>
<td>40</td>
</tr>
<tr>
<td>MS Absent</td>
<td>2.64</td>
<td>1.09</td>
<td>38</td>
</tr>
<tr>
<td>Guilty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS Present</td>
<td>5.78</td>
<td>.77</td>
<td>40</td>
</tr>
<tr>
<td>MS Absent</td>
<td>5.85</td>
<td>.74</td>
<td>38</td>
</tr>
</tbody>
</table>
Chapter 4

DISCUSSION

A Priori Hypotheses

The present study tested two hypotheses. First, it attempted to replicate the findings of Hirschberger (2006), who suggested that when observers are reminded of their personal death, innocent victims who are severely injured elicit higher blame attribution than targets who are responsible for their condition. Individuals who are gravely injured pose reminders of the fragility and vulnerability of human life and, as such, observers are made aware of their own fragility and vulnerability (Hirschberger, 2006). Under these circumstances, terror management defenses are activated so that one’s helplessness can be denied through biased inferential processes (Hirschberger, 2006). Innocent victims pose an aggravated challenge to observers who must justify the former’s fate as a defense against their potential for sharing the same demise. Hirschberger’s (2006) hypothesis was not supported by the present study.

Second, the current research aimed to expand Hirschberger’s focus on blame attribution by exploring the interaction between Terror Management Theory (TMT) and Just World Beliefs. Utilizing TMT as a foundation, this research proposed that innocent victims would be blamed for their misfortune by participants who believed the world is a just place. Specifically, this study proposed a three-way interaction under mortality salience (MS) conditions where innocent victims would elicit high
attribution of blame from participants scoring high on just world beliefs. The research question focused on participants exposed to MS conditions and their subsequent attribution of blame to innocent victims. Participants scoring high on just world beliefs should affirm their worldview by attributing higher blame to these innocent victims than those lower on just world beliefs. Due to the lack of reliability of Rubin and Peplau’s (1975) Just World Belief scale, the three-way interaction was not tested. Instead, this study found, MS’ failure to exert its proposed effect on participants. Attribution of blame occurred as a result of culpability as opposed to as a result of contemplation of death. While this and the previous hypothesis did not receive support, possible reasons for the null findings are discussed below.

An unanticipated finding occurred regarding culpability. This research revealed that participants were able to significantly distinguish innocent victims from guilty victims. Furthermore, attribution of blame was withheld toward the former and emphasized in relation to the latter. These findings are in agreement with normative theories of attribution positing that circumstances believed to be under the control of an actor (i.e., driving while intoxicated) elicit more blame. Importantly, however, such findings directly contradict TMT’s prediction regarding attribution of blame to innocent victims, for according to the theory, when MS is present, innocent victims should elicit highest attribution of blame as opposed to victims who are culpable for their unfortunate circumstances. Whether terror management predictions are imperfect
from a theoretical perspective or whether the current experimental design is faulty are questions begging further investigation.

Theoretical implications for TMT's proposed biased information-processing mechanisms include some of the criticisms commonly directed at TMT in the relevant literature. For instance, TMT has been criticized for its unspecific proposal of cognitions aimed at lessening the terror of death (Buss, 1997). Because the specific cognitions that would lead to greater evolutionary fitness are not well defined, developing specific hypotheses related to cognitions becomes more challenging. This failure of connecting TMT with external adaptation problems renders the theory disconnected from potential sources of understanding of the adaptive function of anxiety (Buss, 1997). Perhaps the cognitions employed by study participants differed from those predicted by the theory. This question demands further investigation regarding the specificity of cognitions employed by observers who are reminded of their personal death. Moreover, the artificial environment of the laboratory embodies another aspect of the criticism mentioned above, that is, the disconnect between real-life adaptation problems and the adaptive function of anxiety. Ethical guidelines considered, future research should strive to test these hypotheses under mortality salience conditions mimicking real-life circumstances, such as placing study participants directly in front of a funeral home, as opposed to the hypothetical scenarios commonly presented in TMT studies (see for example, the methodology

The main effect of culpability encountered in this research may have been exacerbated by the distinctive nature of the materials to which observers were exposed during the experimental manipulation. In these materials, innocent victims (i.e., an exemplary driver who was the subject of mechanical failure) were strongly differentially portrayed from culpable targets (i.e., a repeat drunk driver who was speeding). Such lack of ambiguity may have overridden the phenomenon of interest to the present study. It is possible that if the materials were somewhat more ambiguous with regard to culpability the psychological processes hypothesized here would have had relatively more impact.

Additional possible reasons for the failure of the experimental design to support the study's hypotheses include its inability to effectively remind individuals of their mortality. The questions comprising The Projective Life Attitude Assessment (Rosenblatt, Greenberg, Solomon, Pszczynski, & Lyon, 1989) do not represent the only scientifically supported method of mortality salience induction. Indeed, newer and more implicit MS primes have been found to be reliable by previous research, such as Bargh, Chen, and Burrow's (1996) word-scramble task. Due to unknown factors, it is possible that the mortality salience induction utilized in the present research was unsuccessful in reminding participants of their own death and, as such, TMT's prediction that personal reminders of death impact observers' reactions to
severely injured and innocent victims could not be verified. Perhaps study participants were not sufficiently exposed to the MS prime, for instance, the length of time of the exposure did not allow for the proposed results to be achieved. Participants were instructed to occupy in writing at least half of the lines contained under each question. As such, completion of the task was based on amount of writing as opposed to length of time of writing.

Another possibility is that while the MS experimental manipulation was adequate, its suggested effects were disproved by the current investigation. Indeed, if mortality salience was properly induced, one plausible explanation for the null findings refers to MS’ inability to activate the anxiety-buffering defenses proposed by TMT. Perhaps research participants, albeit aware of the fragility and vulnerability of their human condition, did not feel the need to activate the biased cognitive processes predicted by terror management proponents. This, in turn, suggests the possibility that there are other information-processing mechanisms occurring during an observers’ exposure to reminders of their personal death and the subsequent viewing of a target who is severely injured through no fault of their own.

Finally, a limitation of this research refers to the population employed in the experimental paradigm (i.e., undergraduate students). Sophistication of this population with regard to culpability pertaining to driving while intoxicated may have interfered with obtained results. In addition, it is possible that certain demographic
characteristics of this sample (i.e., relatively young age or the high proportion of female participants) may have played a role in the lack of findings.

**Conclusion**

TMT has been extensively explored regarding its proposal that self-esteem and adherence to a cultural worldview serve an anxiety-buffering function (Pyszczynski et al., 2004). In addition, TMT posits that reminding persons of their own death (i.e., mortality salience) influences prejudice, prosocial behavior, stereotypical beliefs, risky behaviors, and aggression (Cox, Goldenberg, Pyszczynski, & Weise, 2007). While previous investigations offer substantial evidence in support of TMT’s mortality salience (MS) hypothesis, such research excludes important social psychology theories focused on explaining human motivation. Therefore, the present study incorporated just world theory in the experimental paradigm as a means of filling the existing void (Hafer & Bègue, 2005). Future research should aim at developing the proper means to measure just world beliefs so that the construct may be properly integrated with terror management research.

While this investigation’s hypotheses failed to find support, the examination of Terror Management Theory (TMT) and Just World Beliefs continues to represent a crucial step in the direction of expanding our current understanding of the cognitive mechanisms responsible for the intensity and direction of attribution of blame. In light of the limitations inherent in the present study, future research should seek to improve
upon the methodology hereby employed and continue to focus on the integration of these important theories of social psychology.
APPENDICES
APPENDIX A

CONSENT FORM

Consent to Participate as a Research Subject
Reading Comprehension Study

I hereby agree to participate in research which will be conducted by Leticia Ramos Da Silva, and which will involve the following procedures:

1. Completing a demographic questionnaire;
2. Completing a scale assessing personal beliefs;
3. Completing a word search task;
4. Writing answers to open-ended questions;
5. Answering a survey on reading habits;
6. Reading a newspaper article;
8. Completing a scale measuring level of comprehension of the newspaper article;

The research will take place in Amador Hall and will require sixty minutes of my time.

I understand that I will receive one hour of credit toward satisfying the Psychology Department's research participation requirement by partaking in this study.

I understand that this study may have the benefit of aiding researchers in understanding the internal processes of individuals exposed to specific reading materials. Moreover, this research may have the benefit of helping to increase my knowledge of research methods.

I understand that there is a possibility that I may feel uncomfortable with some of the materials utilized in this study. I also understand that I may discontinue my participation at any time without any penalty other than loss of research credit. Additionally, I understand that the investigator may discontinue my participation at any time.

This information was explained to me by Leticia Ramos Da Silva. I understand that she will answer any questions I may have now or later about this research. Leticia Ramos Da Silva can be reached at pombagira2006@hotmail.com.

Signature: ____________________________ Date: __________
Print Name: ____________________________
APPENDIX B

DEBRIEFING FORM

Debriefing

Purpose
The purpose of this study was to investigate Terror Management Theory (TMT) in order to explain the impact of mortality salience (MS) on attribution of blame. Specifically, we were interested in Just World Theory as this theory relates to TMT.

Hypotheses and Supporting Research
Prior research by Hirschberger (2006) suggested that individuals react to victims with ambivalent feelings. People tend to believe that the world is a just place, as suggested by Just World Theory. Perceiving victims’ injuries as a threat to their belief in a just world, observers react to victims as these persons remind them of their own vulnerability. The following hypotheses were tested in the present study: (1) When reminded of their mortality, observers tend to blame innocent victims who are severely injured; and (2) This effect is especially salient for observers who hold high levels of just world beliefs.

Clarification of Deception Used in this Study
This research was identified as a study on reading comprehension, when in fact this investigation was concerned with Terror Management Theory (TMT). We apologize for this deception, but its use was necessary for the research. If the true topic of this study had been revealed to participants at the beginning of the investigation, this information could have served as a mortality salience (MS) prime. This would have made it difficult if not impossible to correctly interpret results. Instead, MS was introduced during the course of the study under controlled conditions. Your participation in this study will remain confidential. Only group averages will be reported, not individual performance.

Contact Information
The results of this investigation will be available by spring 2009. If you would like further information about the study or have questions regarding the experiment, please contact Leticia Ramos Da Silva at pombagira2006@hotmail.com at your convenience.

Psychological Services
If this study evoked any negative emotional responses or painful memories that are troubling you, please contact the Student Health Center’s Psychological Services at (916) 278-6416.

Closing
Do you have any questions?
Thank you for your participation.
DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Please respond to the following questions as accurately as possible. If it would be helpful to clarify a particular answer, feel free to make a note in the margin:

1. Age ______

2. Gender (1) Male ______ (2) Female ______

3. Ethnicity (please check one)
   (1) __ Caucasian/White/European American
   (2) __ Black/African American
   (3) __ American Indian/Native American
   (4) __ Asian/Pacific Islander/Asian American
   (5) __ Latino(a)/Hispanic/Hispanic American
   (6) __ Foreign National (please list country of origin) ____________________________
   (7) __ Multietnic (please list ethnic groups) _________________________________
   (8) __ Other ethnicity (please describe) ________________________________

4. Is English your first language? (1) Yes ______ (2) No ______

5. Relationship Status (please check one)
   (1) __ Single
   (2) __ Single, in a long-term committed relationship
   (3) __ Married
   (4) __ Separated
   (5) __ Divorced
   (6) __ Domestic Partnership
   (7) __ Other (please describe) ________________________________
6. Religious Orientation (please check one)

(1) __ Catholicism
(2) __ Christianity (other than Catholicism)
(3) __ Hinduism
(4) __ Buddhism
(5) __ Islam
(6) __ Judaism
(7) __ Atheism/Non-Religious
(8) __ Other (please describe) _________________
APPENDIX D

BELIEF IN A JUST WORLD SCALE

JWBS

Please, indicate your level of agreement with the following statements:

1. I have found that a person rarely deserves the reputation he or she has.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

2. Basically, the world is a just place.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

3. People who get “lucky breaks” have usually earned their good fortune.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.
4. Careful drivers are just as likely to get hurt in traffic accidents as careless ones.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

5. It is a common occurrence for a guilty person to get off free in American courts.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

6. Students almost always deserve the grades they receive in school.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

7. Men who keep in shape have little chance of suffering a heart attack.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.
8. The political candidate who sticks up for his or her principles rarely gets elected.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

9. It is rare for an innocent man to be wrongly sent to jail.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

10. In professional sports, many fouls and infractions rarely are called by the referee.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

11. By and large, people deserve what they get.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.
12. When parents punish their children, it is almost always for good reasons.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

13. Good deeds often go unnoticed and unrewarded.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

14. Although evil people may hold political power for a while, in the general course of history good wins out.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

15. In almost any business or profession, people who do their job well rise to the top.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.
16. American parents tend to overlook the things most to be admired in their children.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

17. It is often impossible for a person to receive a fair trial in the USA.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

18. People who meet with misfortune have often brought it on themselves.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.


(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.
20. Many people suffer through absolutely no fault of their own.

(1) __ I strongly disagree.
(2) __ I disagree.
(3) __ I somewhat disagree.
(4) __ I neither disagree nor agree.
(5) __ I somewhat agree.
(6) __ I agree.
(7) __ I strongly agree.
APPENDIX E

WORD SEARCH TASK

Word Search

Please find and circle the words listed below. Note that there are only horizontally displayed words, however, these may be in reverse order:

Hamlet    Julius Cesar    King Henry IV
King Lear    Macbeth    Merchant of Venice
Othello    Romeo and Juliet    The Tempest
Twelfth Night    The Taming of the Shrew    The Comedy of Errors

ATGADOPPWSFDCBWSHDGDIOGTRESVLPPI
MTTSEPMETEHTWROPEITQAWSXZPLFVCBDL
ASZXPLOKSMOSDKDAADSRXCODFGRSCPFGI
AXODSASOERTWHFEOGFDEILUJDNAOEMOR
OAZEIFGOVSWPGRYKBGSWOPFPRTKVBFDRD
PAEWSXHTEBCAMUEWKGDRTYVRAELGNIKSN
IKWEEWZARTYTVUDFIGHGOLKPKWDSDIFDSOD
QXITHETAMINGOFTHESHREWHGBKFRTRYIOIA
WEASORETIGKLANBVCPDSAQHAMLETDSDU
IOSOLLEHTOBVNTWIPKOASZXRWEOFDSAII
HJMOTDTHGINHTFLEWTFSAOPLIASWDUIIDSS
APLKIMNHJUIYIOPDSCAXZVBGFDSREWWTYJT
AKNMLOPUTFHVEREDJGFDTVYRNENHGNIKP
XJKDQEYIPADHJLBPCOYRWGDHJXVBMALQ
AERTPOILKJHASDFGZXJULIUSCESARFGIO
QAZWSXSSRORREFOYDEMOCEHTLPPLOKMIJI
QDVBJIPLMERCHANTOFVENICENUJMIKOLPO
APPENDIX F

MORTALITY SALIENCE CONDITION

Open-Ended Questions

1. Please describe the emotions that the thought of your own death provokes in you:

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

2. Write, as specifically as you can, what you believe will happen to you as you physically die and once you are physically dead:

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
APPENDIX G

CONTROL CONDITION

Open-Ended Questions

1. Please describe the emotions that the thought of dental pain provokes in you:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. Write, as specifically as you can, what you believe will happen to you as you physically experience dental pain and once you have physically experienced dental pain:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
APPENDIX H

READING HABITS SURVEY

ID # _____

Reading Habits Survey

Please rate your level of agreement as the following statements pertain to your reading habits:

1. I often choose to read in my spare time.
   (1) ___ Strongly Agree
   (2) ___ Agree
   (3) ___ Disagree
   (4) ___ Strongly Disagree

2. I would appreciate receiving a book as a gift.
   (1) ___ Strongly Agree
   (2) ___ Agree
   (3) ___ Disagree
   (4) ___ Strongly Disagree

3. Reading is an activity I enjoy.
   (1) ___ Strongly Agree
   (2) ___ Agree
   (3) ___ Disagree
   (4) ___ Strongly Disagree

4. I read for pleasure at least twice per week.
   (1) ___ Always
   (2) ___ Sometimes
   (3) ___ Rarely
   (4) ___ Never

5. I have difficulty reading.
   (1) ___ Strongly Agree
   (2) ___ Agree
   (3) ___ Disagree
   (4) ___ Strongly Disagree
6. I enjoy going to the library.

(1) ___ Strongly Agree
(2) ___ Agree
(3) ___ Disagree
(4) ___ Strongly Disagree

7. I consider reading tedious.

(1) ___ Strongly Agree
(2) ___ Agree
(3) ___ Disagree
(4) ___ Strongly Disagree

8. I cannot find books that are interesting.

(1) ___ Strongly Agree
(2) ___ Agree
(3) ___ Disagree
(4) ___ Strongly Disagree

9. When outside of school, I read...

(1) ___ Every day or almost every day
(2) ___ At least twice per week
(3) ___ Once per week or less
(4) ___ I do not read outside of school

10. I read because... (Select as many items as applicable)

(1) ___ Reading is an important life skill
(2) ___ Reading aids my understanding of the world
(3) ___ Reading allows my imagination to develop
(4) ___ Reading is fun
(5) ___ I have no choice, as reading is part of attending school
(6) ___ Reading is part of my family culture
(7) ___ I want to remain competitive in today’s job market
BROOKS – A 42-year old man was severely injured Tuesday in a solo traffic accident in Yolo County, according to California Highway Patrol officer June Wood. KB was driving northbound on Highway 16 at approximately 1:25 PM when he lost control of his 2004 Ford Focus on a curve, causing the car to roll down an embankment. According to witnesses, the driver was traveling within posted speed limits. Officer Wood confirmed that KB was wearing his seat belt at the time of the accident. He was evaluated at the scene and rushed to the nearest hospital by ambulance, where both of his legs were amputated as a result of his injuries.

The Yolo county man is a leader in his community. According to family and friends of the victim, KB is a model employee of the California Office of Traffic Safety (OTS). The OTS is a state-wide agency concerned with reducing deaths, injuries, and economic losses resulting from traffic-related collisions. “This is a true tragedy”, says Robert Powell, KB’s longtime colleague at the OTS, adding that “KB is the safest driver I have ever known. His perfect driving record and commitment to the OTS philosophy are testaments to his deep awareness of road safety.” An accident investigation is underway. Initial reports suggest that mechanical failure may have caused the driver to lose control of his vehicle.
THE SACRAMENTO BEE

By Anthony Padilla
July 19, 2008

BROOKS – A 42-year old man was severely injured Tuesday in a solo traffic accident in Yolo County, according to California Highway Patrol officer June Wood. KB was driving northbound on Highway 16 at approximately 1:25 AM when he lost control of his 2004 Ford Mustang on a curve, causing the car to roll down an embankment. According to witnesses, the driver was traveling at extremely high speeds. Officer Wood confirmed that KB was not wearing his seat belt at the time of the accident. He was evaluated at the scene and rushed to the nearest hospital by ambulance, where both of his legs were amputated as a result of his injuries.

The Yolo county man has a history of DUI. According to family and friends of the injured man, KB was unemployed as a result of his problem drinking. Witnesses report he had spent the evening at a local bar, where he had been drinking heavily. “This is something we’ve expected for a long time,” says Robert Powell, KB’s cousin, adding that “KB just got out of jail on his last DUI charge. They took his license. He had no business being out on the road.” An accident investigation is underway. Initial reports suggest that KB’s blood alcohol level was .24, three times the legal limit.
APPENDIX L

ATTRIBUTION OF BLAME SCALE

Newspaper Article Comprehension Scale

Based on your understanding of the previous newspaper article, please rate your level of agreement with the following statements:

1. KB is to blame for his condition.
   (1) ___ I strongly disagree.
   (2) ___ I disagree.
   (3) ___ I somewhat disagree.
   (4) ___ I neither disagree nor agree.
   (5) ___ I somewhat agree.
   (6) ___ I agree.
   (7) ___ I strongly agree.

2. KB could have done more to avoid his condition.
   (1) ___ I strongly disagree.
   (2) ___ I disagree.
   (3) ___ I somewhat disagree.
   (4) ___ I neither disagree nor agree.
   (5) ___ I somewhat agree.
   (6) ___ I agree.
   (7) ___ I strongly agree.

3. The difficulties KB experiences on Highway 16 are his own fault.
   (1) ___ I strongly disagree.
   (2) ___ I disagree.
   (3) ___ I somewhat disagree.
   (4) ___ I neither disagree nor agree.
   (5) ___ I somewhat agree.
   (6) ___ I agree.
   (7) ___ I strongly agree.
4. KB is a victim of circumstances he has no control over.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

5. KB is responsible for ending up like this.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

6. KB's vehicle accident experience is the result of bad luck.

(1) ___ I strongly disagree.
(2) ___ I disagree.
(3) ___ I somewhat disagree.
(4) ___ I neither disagree nor agree.
(5) ___ I somewhat agree.
(6) ___ I agree.
(7) ___ I strongly agree.

7. Which law enforcement agency responded to the accident?

(1) ___ Sheriff's Department
(2) ___ California Highway Patrol
(3) ___ California Department of Forestry
(4) ___ City Police
8. What kind of injury did the driver incur?

(1) ___ He had both arms amputated
(2) ___ He had both legs broken
(3) ___ He had both arms broken
(4) ___ He had both legs amputated

9. Who was involved in a car accident?

(1) ___ Margaret Bryant
(2) ___ Robert Powell
(3) ___ KB
(4) ___ June Wood

10. What type of vehicle was depicted in the passage?

(1) ___ 2007 Dodge Charger
(2) ___ 2004 Ford Mustang
(3) ___ 2003 Honda Civic
(4) ___ 2004 Ford Focus

11. Where did the accident occur?

(1) ___ Interstate 5
(2) ___ Highway 16
(3) ___ Howe Avenue
(4) ___ Highway 99

12. At what time did the accident occur?

(1) ___ At 4:15 AM
(2) ___ At 1:25 PM
(3) ___ At 4:15 PM
(4) ___ At 1:25 AM

13. Who offered a statement to the newspaper about KB?

(1) ___ His cousin
(2) ___ His father
(3) ___ His colleague
(4) ___ His pastor
14. In which county did the accident take place?

(1) ___ Sacramento
(2) ___ Marin
(3) ___ Kern
(4) ___ Yolo
REFERENCES


