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Mortality Salience Effects on Gender Stereotype Attitudes and Sexism, and the Moderating Effect of Gender Role Conflicts

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Abstract

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by

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MA, University of Texas – Pan American, 1998

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Dissertation Submitted in Partial Fulfillment of the

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Abstract

Research on existential mortality fears has indicated that death reminders impact individuals at the cognitive and behavioral levels. One way people cope with this threat is through cherishing cultural values that provide life with meaning. However, little research has explored how death reminders impact cultural standards regarding gender. These cultural values often manifest through various means by male and female groups. Guided by terror management theory, which posits that people address threats to their existence by engaging in culturally-sanctioned behaviors to enhance their self-esteem, the purpose of this study was to examine the effect of mortality salience (MS) on male participants' propensity for sexism and attitudes towards those with atypical gender stereotypes. Participants ($n = 136$) were recruited from courses at a local university and were selected based on the assumption that they had been exposed to media depicting death-related events. A quantitative research design was used to examine differences between the experimental MS and control pain salience conditions, and to assess effect sizes. Results from a MANOVA indicated that MS was associated with significantly higher sexism scores ($F = 15.322$, $p < .001$) as measured by the Ambivalent Sexism Inventory, and with less favorable ratings of peers (as measured by a common opinion rating scale used in previous research in this area) who violated traditional gender stereotypes ($F = 13.459$, $p < .001$). The findings imply existential threats may contribute to negative stereotyping based on gender and enhance conservative views of gender stereotypes. Implications for social change are discussed involving the reduction of intolerance and prejudice directed at those who hold opposing worldviews.

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Chapter 1: Introduction to the Study

Introduction

Following the terrorist attacks in September 2001, mortality concerns for the majority of U. S. citizens have grown exponentially (Pyszczynski, Solomon, & Greenberg, 2003). While such concerns typically wax and wane over time, the subsequent incidence of natural disasters (the Indonesian tsunami in 2004, Hurricane Katrina in 2005, the Haiti earthquake in 2010, and the earthquake and subsequent tsunami in Japan in 2011), along with fears regarding potential epidemics (avian and swine flus) and relatively recent spates of mass shootings, have kept mortality concerns high. Subsequent increased research efforts since 2001 have examined how individuals cope with psychological death reminders; this research explored how behaviors directed at self-esteem enhancement may defend against mortality threats (Greenberg, Pyszczynski, & Solomon, 1986; Pyszczynski et al., 2004). Based on Burke, Martens, and Faucher's (2010) meta-analytic review, numerous studies over the past 2 decades have demonstrated that death reminders influenced a wide-variety of subjects' attitudes, cognitions, and behaviors, and that the majority of these findings have evidenced rather robust effect sizes. However, relatively little empiricial literature is available on gender issues related to this topic, and only one study (Schimel et al., 1999) was found that examined the impact of death reminders on attitudes towards individuals who engage in atypical gender behaviors.

Death anxiety as a topic of empirical investigation has generated considerable interest from various disciplines (Kastenbaum, 2011). Traditionally, the majority of

empirical investigations into death anxiety have relied on self-report questionnaires or responses to death-anxiety scales. The utility of the findings from these studies has been limited by the difficulties inherent in interpreting the results of self-report scales, the ability to generalize findings to diverse groups, poor understanding of what constitutes a typical level of death anxiety, and lack of data about contextual and developmental issues (Kastenbaum, 2011). In a cross-cultural review of studies about death anxiety, Lester, Templer, and Abdel-Khalek (2007) found that people typically reported only low levels of overall death anxiety, that women tended to endorse higher levels of death anxiety than males, and that there appeared to be no significant differences in self-reported death anxiety as a function of age. However, with the relatively rapid aging of America and concerns regarding and unstable economic climate, the potential for increased death anxiety among mainstream American culture remains high. While there has been considerable interest in studying individual reactions to end-of-life issues and the dying process, little information exists prior to the late 1980s that has explored the impact of death reminders on typical people who are not immediately facing death (Kastenbaum, 2011).

Mainstream American society, including some of its more prominent educational and professional institutions (medicine, theology, psychology), has historically avoided thinking about death and dying, and the mass media depictions of violent and grisly deaths often contributes to an avoidance of confronting our emotions regarding death (Kastenbaum, 2011). Since the advent of TMT roughly 27 years ago (Greenberg, Pyszcynski, & Solomon, 1986), considerable experimental research has been devoted to

exploring existential constructs that had previously been thought impossible to study with

scientific rigor (Greenberg, Koole & Pyszczynski, 2004). TMT posits that individuals

are motivated to allay the potential terror inherent in their awareness of our transient

nature by investing in cultural belief systems that instill life with meaning and the

individuals who subscribe to them with significance (Greenberg, Pyszcynski, &

Solomon, 1986). TMT is discussed in greater detail in Chapter 2. While the wealth of

studies testing the tenets of TMT have provided significant evidence that mortality fears

do influence individuals' behaviors and attitudes at a subtle level, little research exists

that has explored factors related to gender-related variables and how these may contribute

to negative evaluations of individuals who belong to a social group that participants do

not identify with (out-group bias; Burke, Martens & Faucher, 2010). Continued research

in this area is clearly needed to facilitate communication among individuals and diverse

groups. Findings from TMT research may serve to enhance knowledge about the

mechanisms of coping with this uniquely human experience and to help to reduce

negative attitudes and hostile behaviors towards those who hold opposing worldviews.

This dissertation provides a comprehensive review of empirical investigations

into mortality concerns and their impact on individuals' attitudes and behaviors. A

review of pertinent material about the topics of gender-role conflicts and sexism is also

presented, along with information detailing the importance of continued research into

these constructs. Chapter 1 begins with background information on mortality fears and

then proceeds with describing the problem statement(s), the purpose of the study, the

research questions, theoretical bases, the nature of the study, a definition of terms, a significance of the study, and concludes with assumptions and limitations.

Background

Through evolutionary processes, human cognitive capacities have developed to include a heightened self-awareness and the ability to mentally transcend time (Shaver & Mikulincer, 2012). Part and parcel of this advanced set of cognitive skills is the ability to contemplate a future that does not include one's self. As stated by Becker (1973), "Man …. is a creator with a mind that soars out to speculate about atoms and infinity.… Yet at the same time, as the Eastern sages also knew, man is a worm and food for worms" (p. 26).

It is this capacity for awareness of our own mortality, and the behaviors we engage in that attempt to transcend this nonexistence that differentiates us from other species (Becker, 1973). Reminders of the frailty of human existence often create apprehensions and anxiety, and may lead to escape behaviors or avoidance behaviors (Pyszczynski, Greenberg, Koole, & Solomon, 2010). Historically, it has been thought that possessing religious beliefs would serve as a protective measure against death-related anxiety, although this assumption is not without it challenges. In a longitudinal study conducted by Wink and Scott (2005), participants possessing strong religious beliefs did not report the lowest levels of death anxiety in later adulthood; however, those who tended to believe and those who tended to firmly disbelieve in an afterlife reported less death anxiety than those with less tightly held convictions. In order to find modern examples of the pursuit of immortality, one need only search through the multitude of

reality television programs that have been created in which the characters attempt to capture evidence of the afterlife (Pyszczynski, Greenberg, Koole, & Solomon, 2010). Several theories, three of which are discussed in the following paragraphs, have also evolved in an attempt to explain the nature of death anxiety and to highlight the manner by which people may attempt to either cope with mortality fears or to deny death.

According to early psychoanalytic theory, much of our cognitive processes operate at an unconscious level. The unconscious was thought to have no conceptualization of the passing of time and thus could not comprehend our own demise at an affective level (Kastenbaum, 2011). Instead, much of the death anxiety individuals experienced was believed to be castration anxiety (fear of literal and metaphorical emasculation as punishment for sexual feelings towards the opposite sex parent) in masked form (Yalom, 2008). A more modern interpretation of a psychoanalytic perspective on death anxiety suggests that the anxiety experienced by individuals is more likely to be rooted in biology and fears of loss of love, attention, and security (Fonagy & Target, 2007). Individuals thus may cope with death-related anxiety through the use of humor to deflect deep-rooted fears, engaging in repetitive compulsions, through censoring much of what they think, feel, and share with others, and engaging in behaviors that afford a false sense of control (drinking, drugs, indiscriminate sex) in their lives (Pyszczynski, Greenberg, Koole & Solomon, 2010). Some support for this supposition comes from clinical observations of heightened death anxiety seen in those individuals who have experienced a perceived loss of control over events in their lives (Kastenbaum, 2000).

Another theoretical approach that has been proposed is edge theory (Kastenbaum, 2000). This theory was developed out of the observations that most participants in studies on death anxiety typically reported only a moderate degree of death anxiety, but did not deny that such concerns existed (Kastenbaum, 2000). This approach attempts to differentiate between every day, low degrees of mortality fears and the states of heightened vigilance experienced by individuals when they are confronted with a real or imagined danger (Kastenbaum, 2000). This approach calls attention to the adaptive value of anxiety as a means of being alert to, and helping us avoid danger but also stresses that perpetual states of anxiety are deleterious and have not promoted optimal functioning (Kastenbaum, 2011).

The third theory is derived from Ernest Becker's pioneering 1973 work *The Denial of Death*. Becker believed that societies serve a function to help provide meaning in people's lives and his theory highlighted the role culture plays in alleviating mortality concerns (Becker, 1973). Becker also posited that people engage in self-deceptions that help provide meaning in their lives and often include culturally sanctioned phenomena such as religion, sociopolitical systems, science, and even aesthetics (Becker, 1973). Becker (1973) held that adherence to these constructs serves the function of reducing death anxiety, but also prevents people from transcending fears of death and can lead to aggression against individuals and nations in an attempt to protect the deceptions. Expanding on Becker's thoughts regarding death anxiety and the mechanisms by which societies provide the means for coping with these fears, Greenberg, Pyszcynski, and Solomon (1986) conceptualized TMT. In its original form, TMT proposed there are two

basic psychological mechanisms people use to help cope with the terror of death awareness – through validation of one's cultural worldview and through enhancement of self-esteem (Greenberg, Pyszcynski, & Solomon, 1986). TMT and the subsequent works of numerous social psychologists (for a review see Burke, Martens, & Faucher, 2010) helped bridged the gap between philosophical thought on mortality fears and the means by which empirical research could be conducted to examine concepts previously thought difficult to investigate scientifically. TMT has also undergone considerable changes over the past 2 decades, one of which includes the development of a model of the cognitive architecture underlying the defenses individuals engage in when confronted with mortality fears. Several interesting hypotheses generated from TMT have led to a considerable amount of research. This research has indicated that the presentation of death reminders influences participants' attitudes and behaviors in rather significant ways (Burke, Martens, & Faucher, 2010). A more thorough discussion of TMT and the hypotheses derived from it are provided in Chapter 2.

Statement of the Problem

A considerable amount of research has been conducted in the last 3 decades attempting to test the central tenets of TMT; the empirical literature appears to provide support for the hypothesis that implicit death reminders do affect individuals at the cognitive and behavioral levels (Burke, Martens, & Faucher, 2010). In a study using Arizona judges as participants, Rosenblatt, Greenberg, Solomon, Pyszczynski, and Lyon (1989) found that simply presenting participants with open-ended questions regarding thoughts of their own death (versus controls who were presented with open-ended

questions regarding watching television or dental pain) increased harsh fines administered by the court judges for the offense of prostitution. Schimel et al. (1999), using the same death reminder manipulation, found that participants reminded of their own death increased their stereotyping of Germans, increased favorable attitudes towards stereotype-consistent African-American male confederates, and decreased participants' liking for stereotype-inconsistent gay males. Greenberg and Kosloff (2008), using the same experimental death reminder, found that induction of MS increased participants' positive ratings of charismatic leaders and increased their endorsement of hostility feelings towards those from an outgroup. The authors also found that targets of prejudice, when presented with a similar experimental death reminder, expressed more negative views of their ingroup. Arndt, Greenberg and Cook (2002) demonstrated that primes of subliminal death reminders (through subliminal presentation of the word "dead" in a computer administered word-relation task) increased participants' access to cognitions related to nationalistic worldview through a word-fragment task. McPherson and Joireman (2009) demonstrated that experimental death reminders influenced behaviors as well as attitudes and cognitions. Utilizing the open-ended questions method regarding death, the authors found that participants exposed to the death prime administered more hot sauce (compared to the dental pain control condition) to a hypothetical peer who held a negative view of their university. A more thorough review of the development of the methods used to investigate TMT is discussed in Chapter 2.

Despite the increased research in topics long thought to be beyond the scope of rigorous scientific methodology and the development of more creative methodologies,

Western culture continues to function in a manner that shields people from various

aspects of mortality – aside from media portrayals of remote events of violence or natural

disasters, or the loss of famous persons (Kastenbaum, 2011, p. 8). Also, while there has

been an increased interest in death education to reduce mortality fears since the 1960s,

the majority of professional training programs (physicians, nurses, clergy, and even

psychologists) give students little in the way of exploring their own thoughts and feelings

regarding death (Kastenbaum, 2000). The neglect of this topic at a personal level with

professionals-in-training likely impacts the work of those in the helping professions to

provide sufficient assistance to individuals who are struggling with end-of-life issues.

The empirical investigation of gender differences in experienced death anxiety

has yielded some support for the idea that females reported more death anxiety than

males (Kastenbaum, 2011). However, it appears that these reported differences have not

been examined systematically. Dattel and Neimeyer (1990) found that female

participants reported more affectively oriented death anxiety than males, but responded

equivalently to males when it came to cognitively oriented threats. The authors found

that when self-disclosure was controlled for as a potential response bias, the differences

remained the same. This supports the assumption that differences in attitudes towards

death attitude are genuine. In a study examining gender differences across the lifespan,

Russac, Gatliff, Reece, and Spottswood (2007) found that male and female participants

experienced a spike in death anxiety in their early 20s; however, female participants also

showed a significant spike in death anxiety in their 50s. The results from these and other

studies suggest that continued research is needed into potential casual factors for the observed gender differences in death anxiety (Kastenbaum, 2011).

Gradual alterations in the social and political environment in the United States and other industrialized nations over the past 50 years have produced changes in social norms and legislation and made traditional forms of sexism unacceptable as a social practice (Blanchard, Lilly, & Vaughan, 1991; Tougas, Brown, Beaton, & Joly, 1995). Despite some research that has indicated a significant decline in gender prejudice within communities and the workplace (Brewster & Padavic, 2000), the typical approach to studying these changes has tended to over rely on explicit measures of sexist attitudes (Kawakami & Dovidio, 2001). Some research has indicated that gender-based biases are still quite prevalent. Therefore, the need for empirical investigation into sexism remains; more implicit measures of gender prejudice should be used (Carpenter, 2000; Kawakami & Dovidio, 2001; Rudman & Kilianski, 2000). What has not been investigated is how men's conflicts with stereotypical masculine gender roles and benevolent forms of sexism towards women may be impacted by mortality fears.

Purpose of the Study

The purpose of this study was to investigate the impact of death reminders on the expression of hostile and benevolent sexist attitudes, and also to examine the impact of a MS on participants' attitudes towards peers who adhere to gender stereotypical norms and those who do not adhere to these norms. As little research on the variables related to a participant's own gender roles that may mediate death-reminder reactions exists, the purpose of this study was also to examine how the presentation of a death reminder

interacts with gender role conflicts to influence gender stereotypical attitudes and gender preference attitudes.

Research Questions and Hypotheses

TMT has received considerable research attention over the past 2 decades; it sheds light on the role and development of cultural worldviews and self-esteem (Burke, Martens & Faucher, 2010). However, little research attention has been directed towards understanding the impact of gender roles and stereotypes on the psychological defenses used in the face of mortality threats. The following research questions and hypotheses were developed following a review of the existing literature about terror management theory (Burke, Martens & Faucher, 2010), research within the field of sexism (Jost & Kay, 2005; Katz, Joiner Jr. & Kwon, 2002; Rotundo, Nguyen & Sackett, 2001; Sibley & Overall, 2011; Viki, Abrams, & Hutchison, 2003), the construct of gender role conflicts (O'Neil, 2008), and contemplation of the gaps in the literature.

Research Question 1. Does the presentation of a death reminder affect participants' response on a measure of hostile and benevolent sexism (the Ambivalent Sexism Inventory)?

$H_o{}^1$: There is no significant difference in participants' sexism scores (as measured by the ASI) between the death reminder and control conditions.

$H_a{}^1$: There is a significant difference in participants' sexism scores (as measured by the ASI) between the experimental and control groups, with the experimental condition participants endorsing higher levels of both hostile and benevolent sexism.

Research Question 2. Does the presentation of a death reminder impact participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles?

H_o^2: The presentation of a death reminder does not affect participants' rating of a hypothetical peer who either conforms to, or violates, stereotypical gender roles.

$H_a^{2:}$ The presentation of a death reminder does affect participants' ratings of hypothetical peers, with the experimental condition responding less favorably to a peer who violates stereotypical gender roles

Research Questions 3. Do conflicts with one's gender role (as measured by O'Neil's (1981) Gender Role Conflict Scale, GRCS), moderate the impact of a death reminder on participants' responding on the sexism measure?

H_o^3: Gender role conflict scores, as measured by the GRCS, do not moderate the effect of a death reminder on participants' sexism scores on ASI.

H_a^3: Gender role conflict scores, as measured by the GRCS, do moderate the effect of a death reminder on participants' responding on the ASI.

Research Question 4. Do conflicts with one's gender role, as measured by the GRCS, moderate the impact of a death reminder on participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles?

H_o: Conflicts with one's gender role, as measured by the GRCS, do not moderate the effect of a death reminder upon participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles.

H_a4: Conflicts with one's gender role, as measured by the GRCS, do moderate the effect of a death reminder upon participants' ratings of a hypothetical peer, with higher gender role conflict scores being inversely correlated with less favorable ratings of stereotype violating peers.

Theoretical Background for the Study

The bulk of the groundwork for this present study comes from TMT which posits that existential threats to one's existence arise from awareness of our own mortality and instincts to preserve one's life. TMT is derived from the work of Ernest Becker (1973) who postulated that individuals cope with psychological threats to their existence by becoming more conservative with their cultural worldview, which in turn enhances self-esteem. This improved self-valuing is thought to contribute to the belief that some aspect of the self will continue either symbolically (children, significant achievements) or literally (beliefs in an afterlife) after a person has died. According to Rosenblatt, Greenberg, Solomon, Pyszczynski, and Lyon (1989), these cultural buffers against anxiety consist of beliefs in the values of one's cultural worldview as valid, and that one is living up to or exceeding these standards. TMT is discussed in greater detail in Chapter 2.

A significant body of evidence indicates at least a moderate degree of difference in death anxiety between males and females; however, problems with research methodologies and a lack of evidence regarding possible causal factors has made interpreting the results difficult (Russac, Gatliff, Reece, & Spottswood, 2007). Very little research exists on how gender-related variables may influence, or be influenced by, death

reminders, and no studies were found examining the impact of death reminders on sexist attitudes. As gender is considered a socially generated category (Becker & Swim, 2011) and TMT posits that social constructs may serve the function of alleviating death anxiety, this study will explore the impact of death reminders on participant's responses to a measure of sexism.

The preponderance of the material on the concept of sexism is derived from the work of Glick and Fiske (1996). These authors proposed the concept of ambivalent sexism; it consists of a gender ideology comprised of both hostile and benevolent prejudices towards women. This ambivalence appears to result from basic features associated with relationships between women and men. One of the features, argued the authors, is the concept of patriarchy, which leads to perceptions of women as being less competent and requiring more help than men. The dominance of the male of our species is the mainstay in a variety of cultures, with males typically holding higher status jobs, having higher salaries, having greater access to resources, and having greater choices when it comes to educational and vocational pursuits (Doyle, 1989). Despite the prevalence of patriarchy, another feature associated with ambivalent sexism involves the interdependence between men and women. Men, for all the power their sex role provides, are still dependent on women as nurturing mothers, supportive wives, and as a source of intimacy that males find extremely difficult to obtain from the same sex (O'Neil, 2008). Glick and Fiske thus believe that this interdependence fosters the development of benevolent forms of sexism that recognizes women as valuable, but only within a tightly held, stereotypical feminine gender role.

Gender role conflict has been defined as psychological states in which socialized gender roles create negative consequences for self or others (O'Neil, 1981). O'Neil has hypothesized that the overly rigid gender typing processes young males undergo affect them at the cognitive level and influence their attitudes about gender roles. This impact of the restrictive gender roles that males frequently encounter has been strongly associated with positive attitudes toward sexual harassment, rape myths, and hostile sexism (O'Neil, 2008). While there has been extensive research on attitudes in the brief history of psychology (O'Neil, 2008), there has been relatively little work exploring the role of conflicts with one's gender role on the formation of these attitudes.

Nature of the Study

Based on a meta-analytic review of the empirical literature that attempted to test the assumptions of TMT, Burke, Martens, and Faucher (2010) concluded that death reminders presented through an MS prime condition consistently produced a cultural worldview defense, namely psychological mechanisms individuals engage in to strengthen their association with a social group they identify with (increased nationalism or patriotism). The authors also concluded that these reminders consistently altered participants' attitudes and behaviors towards members of groups with different cultural worldviews. The majority of the studies included in the review demonstrated rather robust effects from the MS induction, regardless of whether explicit techniques (asking participants to think about their own death and then briefly write their thoughts and feelings) or implicit techniques (subliminal death reminders) were implemented. However, the authors found that the body of work has consistently demonstrated that the

effect produced by an explicit MS induction was greater when there is a delay between tasks. Studies have shown that an MS presentation had no effect on the intent of participants to exercise when assessed immediately after the MS presentation; however, when the MS presentation was followed by a delay with distraction task participants reported significantly greater intent to exercise (Arndt, Schimel, & Goldenberg, 2003). Similarly, Routledge, Arndt, and Goldenberg (2004) found that a delay following MS presentation decreased the positive endorsement of safe sun-tanning products (for those whose physical appearance was an important component of self-esteem), but not when the assessment of the product endorsement immediately followed the MS presentation.

This present study tested several hypotheses about the impact of the presention of a MS upon participant's endorsement of sexist beliefs and attitudes towards gender-atypical peers. As the study involved experimental manipulations, a quantitative design was used. The independent variables consisted of the presentation of a MS versus the control condition of a pain salience, and the presentation of brief biography of a gender-stereotypical peer versus a gender-atypical peer. The dependent variables consisted of participants' scores on the Ambivalent Sexism Inventory (ASI; Fiske & Glick, 1995) and their opinion rating of the peer (following the methodology established by Bettencourt, Dill, Greathouse, Charlton, & Mulholland, 1997). Likewise, gender role conflict, as measured by the GRCS (O'Neil, Helms, Gable, David, & Wrightsman, 1986), was examined as a possible variable that moderated the impact of the MS presentation.

Definition of Terms

Ambivalent sexism refers to the frequently conflicting positive and negative feelings and beliefs commonly held regarding gender and gender roles (Glick & Fiske, 1996).

Benevolent sexism is a concept created by Glick and Fiske (1996) to reflect sexist attitudes held towards men and women that involve primarily positive feelings (e.g., women should be placed on a pedestal).

Death Thought Accessibility (DTA) refers to the assumption that people are generally motivated to circumvent or otherwise suppress death-related thoughts, and when presented with a mortality salience, will exhibit greater access to death- related cognitions (Pyszczynski, Greenberg, & Solomon, 1999).

Gender Role Conflict (GRC) is a concept first depicted by O'Neil (1981) as potential psychological states whereby traditional socialized gender roles led to negative consequences for males and others with whom they relate.

Mortality salience (MS) for the purposes of this research will refer to procedures designed to increase participant's awareness of their own inevitable demise (Greenberg, Pyszczynski, & Solomon, 1986).

Worldview defense refers to the tendency of individuals to become more conservative with their cultural worldview as a means of reducing anxiety by enhancing self-esteem (Greenberg, Pyszczynski, & Solomon, 1986).

Significance

Findings from this study are expected to contribute to the understanding of how existential mortality fears may lead to negative stereotyping and discrimination, and create the potential for out-group hostility and violence. According to Schmeichel et al. (2009), MS research has highlighted problems associated with death denial and how many minimize the importance of such fears as motivators for how we think and behave. Recent studies have also highlighted the importance of this research in terms of its implication for initiating peace processes between divergent groups (Niesta, Fritsche, & Jonas, 2008) and for understanding intergroup conflicts and prejudices (Greenberg & Kosloff, 2008). The study is expected to provide further support for increased use of the GRCS in clinical and counseling settings, particularly for males who are regularly confronted with death reminders. Also, the ramifications of sexism are broad and sexists beliefs and attitudes have been associated with domestic violence, rape myths, sexual mutilation of young females, lack of high-status jobs for women, lower socioeconomic status for women in many nations, homophobic behaviors, and hate crimes against homosexuals (Glick et al. 2000).

The findings from this study are expected to provide further evidence to the already growing literature on the impact of heightened mortality concerns. The study is also expected to advance the push for increased death education at various levels in society, and help highlight the negative consequences of continued death denial. The summary review of the literature indicated a continued need for investigation of out-

group hostility and discrimination through culturally sanctioned attitudes and behaviors in the face of existential concerns.

Scope and Delimitations

As the participants recruited for this study were students at the University of Texas – Pan American (UTPA), it was assumed that the participants possessed sufficient reading levels to attend to and comprehend the items on the various instruments and materials. Since the participants were voluntarily recruited from classes on the UTPA campus and other opportunities for extra-credit were readily available during the time of data collection, it was assumed the students participated willingly and were not operating under coercion to do so. Based on a review of the psychometric properties of the ASI and GRCS (Glick & Fiske, 1997; O'Neil, 2008), it was also assumed that these instruments are valid measures for assessing the variables of interest.

As the design of the study required the use of inferential statistics to interpret the data, the following assumptions were required. It was assumed that the sample of participants was representative of its respective population, and that this population represented a normal distribution. It was also assumed that the observed data from the participants in the sample were independent of each other. Homogeneity of variance was another crucial assumption for this study.

As the participants were drawn exclusively from a college population, the generalizability of the results from the study are limited beyond this demographic age group and education level. As the student population from which the sample was drawn is comprised of predominantly Hispanic individuals (estimated 89% student population),

the ability to generalize the findings to diverse ethnic groups is also limited. The degree

to which attitudes can be accurately assessed through the use of survey and questionnaire

methods engendered limitations because we cannot know the respondents' level of

thought put into each item, their openness in responding to items, or whether they

experienced confusion regarding item content at the time of assessment.

Another limitation of the methodology concerns the nature of the intended

influence of the MS. As pointed out by Kastenbaum and Heflick (2010), there has been a

lack of qualitative analysis of the narratives generated by those exposed to the proposed

MS condition. In their review of over 200 narratives generated from the proposed

methodology, a wide range of responses were generated other than anxiety; elements of

sorrow constituted a more pervasive theme.

Summary

Confrontation with the existential problems of finitude and the threat of a

meaningless existence is inevitable for all human beings. Heidegger argued that human

existence in embedded in our ability to conceptualize time including the past, present,

and a future without us (Heine, 1985). While we are aware that death is an unavoidable

event, the indeterminate nature of our demise leads to much apprehensiveness (Tomer &

Eliason, 2008). A variety of scholarly disciplines have investigated death-related anxiety

over the past 5 decades; however, the usefulness of the findings from these studies have

been limited due to problems with interpretation of the results and the ability to

meaningfully apply them to diverse groups (Kastenbaum, 2011). The problem of

effective confrontation with fears of death in many societies has been compounded by a

relative lack of emphasis on death and dying at a personal and affective level in the majority of professional educational systems (Durlak & Riesenberg, 1991). The focus of this study was to examine one proposed method for coping with perpetual anxiety regarding the awareness of our own mortality through the human inclination to see ourselves as enduring organisms in a permanent, meaningful world filled with culturally relevant symbols.

TMT originated from the works of Ernest Becker (1973) whose writing highlighted the problems inherent in self-deceptions (or "vital lies") that people engage in that provide meaning in their lives. These deceptions often include culturally sanctioned phenomena such as religion, sociopolitical systems, science, and even aesthetics. Becker felt that adherence to these constructs serves the function of reducing death anxiety, but also prevents people from transcending fears of death and can lead to aggression against individuals and nations in an attempt to protect the deceptions.

Since the pioneering work of Greenberg, Pyszczynski, and Solomon in 1986, there exists a wealth of empirical research investigating TMT. TMT posits that people engage in both proximal and distal defenses when confronted with threats to their existence (Pyszczynski, Greenberg & Solomon, 2000). Distal defenses involve enhancement of one's self-esteem through the engagement in culturally sanctioned behaviors, valuing attitudes that are consistent with one's culture, and holding to the belief that one's culture is superior to others (Pyszczynski et al., 2004; Solomon, Greenberg, & Pyszczynski, 2004). The majority of the studies that tested the tenets of TMT have demonstrated robust effects in a variety of cognitive and behavioral domains,

and have supported the notion that agreeing with, or adopting culturally relevant values

and behaviors reduces the threat of mortality. However, relatively little research exists

that explores the impact of death reminders on gender-related variables or how these

variables may moderate the effects of mortality threats. While research examining

gender differences in death anxiety has found that females report higher levels of

affective components of death anxiety than males, research has not systematically studied

this experience nor significantly explored possible casual factors for this (Dattel &

Neimeyer, 1990; Russac, Gatliff, Reece, & Spottswood, 2007). As gender has been

commonly held as socially generated categories distinguished by different psychological

characteristics and social roles (Cralley & Ruscher, 2005), more research is needed on

this topic in relation to the means with which individuals' cope with mortality fears. The

research hypotheses for this study posited that a MS would influence participant's levels

of ambivalent sexism as measured by higher scores on the Ambivalent Sexism Inventory

(ASI; Fiske & Glick, 1995) and that the presentation of a mortality salience would

decrease favorable ratings of a brief biography of a gender atypical peer. Another

hypothesis proposed that gender role conflict as measured by the GRCS (O'Neil, 1981)

would moderate the impact of a death reminder on participants' ambivalent sexism

scores, with higher GRCS scores being associated with higher levels of ambivalent

sexism on the ASI. Also, it was hypothesized that higher GRCS scores would be

associated with less favorable rating of a peer who violated a gender stereotype. It was

anticipated that the findings from this study will contribute to comprehension of how

mortality fears may contribute to negative stereotyping and discrimination, and engender the potential for hostility.

Chapter 2 begins with a review of the origins of TMT in existential philosophy and psychological research; it is followed by a detailed depiction of the development of TMT, the theory that provided much of the impetus for this research. A review of the literature discusses (a) TMT, highlighting the empirical evidence in the domains of the various cognitive, affective, and behavioral variables that have been studied to date, and (b) the relative lack of research on gender-related variables. Chapter 2 integrates findings from the empirical literature on more modern forms of sexism, the construct of gender role conflicts, and how these constructs are largely absent in the TMT research. Chapter 3 outlines the methodology that is most suited to answer the research questions. It also describes of the population, the rationale for using this population and its potential limitations, the sampling methods, the method of analyzing the data, and the relevant ethical considerations.

Chapter 2: Literature Review

The purpose of this study was to investigate the impact of death reminders on the expressions of ambivalent sexist attitudes, and to examine the impact of a MS participants' attitudes towards peers who adhere to traditional gender-stereotypical norms and those who do not adhere to those norms. The purpose of this chapter was to provide background material on the theoretical constructs relevant to this study and to provide a review of methodologies that have been developed to test these theories.

The following review of the literature highlights some of the significant findings on MS effects, and also supports the need for continued research on this topic, particularly concerning the cognitive and behavioral variables associated with various aspects of gender. Historically, research on mortality-related topics have primarily focused on death anxiety (including purported gender differences in the construct), individual and cultural differences in mortality-related beliefs, and grief and bereavement practices (Kastenbaum, 2011). The majority of the early work on death anxiety primarily used self-report questionnaires, and while some patterns have surfaced from the data (women tend to report higher levels, the elderly tend to report slightly lower levels, and those diagnosed with psychiatric illnesses consistently report higher levels), there have been significant limitations in interpreting these findings (Kastenbaum, 2011). According to Kastenbaum (2000), some of the major difficulties include problems with interpreting low death anxiety scores; problems with determining what constitutes a healthy or normal level of death anxiety; problems associated with limited diversity in sampling; and limited research on the impact of context on death anxiety. This study's review focused

on studies that attempted to integrate a broader understanding of human responses to mortality terror rather than responses to self-report questionnaires about experiences with death anxiety. The findings suggested that this is a pertinent area of research for exploring human experiences with death, and suggested the need for further research in this area as our world becomes increasingly globalized and divergent cultures intersect more frequently.

The theoretical background driving the methodology of this study has its origins in the pioneering works of cultural anthropologist Ernest Becker whose seminal text *The Denial of Death* (Becker, 1973), highlighted the problems associated with self-deceptions that give one's life meaning, and the problems associated with the degree to which individuals and nations will go to protect them. In 1986, TMT was proposed by social psychologists Greenberg, Pyszcynski, and Solomon. Central to their theory is the analysis of human motivations to allay the potential for terror inherent in the human condition. Awareness of our vulnerability and mortality creates a risk for dread, which may be assuaged by investing in cultural belief systems (or worldviews) that give meaning to our existence (Greenberg, Pyszcynski, & Solomon, 1986). Individuals who tend to hold with these worldviews find significance in their lives and often experience an enhancement of self-esteem. A wealth of empirical studies has been conducted since the origins of TMT and these investigations have covered a variety of topics including: aggression, stereotyping, political preferences, creativity, sexuality, attachment, disgust, risk-taking, legal decision making, and a multitude of other topics (Burke, Martens &

Faucher, 2010). However, relatively little research has been conducted on gender-related variables.

Literature searches were performed digitally through the use of electronic databases including PsycINFO, PscyARTICLES, Psychology: A SAGE Full-Text Collection, and Academic Search Complete/Premier as well as through the University of Texas – Pan American library database. The following keywords were used in the literature search: *terror management theory*; *mortality salience*; *death reminders*, *gender role conflict*, and *sexism*. A search through PsycARTICLES using the phrase *terror management theory* generated 694 results. A PsycARTICLES search using the keywords of *terror management theory* and *gender role conflict* yielded no results, while a similar search using the terms *terror management theory* and *sexism* yielded only 5 results. Similar results were obtained through other search engines. The search results suggested that empirical investigations on these combined topics was limited. The literature review also included several books that helped to provide a review of TMT.

As the origins of TMT are rooted in existential philosophy and psychology, Chapter 2 provides a brief review of the progression of existential thought within the field of psychology, and its eventual transition from philosophical implications and clinical applications, into experimental methodologies. A review of the changes in TMT over the past 2 decades is covered, as well as the studies testing various hypotheses derived from TMT. A summary review of the constructs of sexism and gender role conflict is also be provided, along with an explanation of the relationship between these concepts for the

purposes of this study. The chapter concludes with a summary of the development of TMT and future directions with this construct.

Existentialism

Existentialism is the underlying school of thought that has been informative in establishing the foundations for TMT. While the term existentialism was not largely utilized until the 1940s and 1950s, the presence of existential thinking is at least as old as written history, and is prominently seen in the 19th century writings of the great philosophers and literary scholars (Shaver & Mikulincer, 2012). Some of the earliest records documenting concerns with an existential crisis date back to 18th century BC in the works of the *The Epic of Gilgamesh,* in which the story's hero is consumed by mortality fears following the death of a close friend (Kastenbaum, 2011). Existential issues are also apparent in the works of the some of the world's early great thinkers, such as Plato and Socrates and evident in the works of some of the great theologians (e.g., Aquinas, Augustine). Writers from the Renaissance and Romantic eras, such as Milton, Dante, Shakespeare, Dostoyevsky, and Hugo devoted much of their writing to existential issues, and existential concerns are prevalent in the history of classical music and art. However, it wasn't until the progressive development of an existential school of thought, seen in the writings of Descartes, Kant, Kierkegaard, Nietzche, Kafka, Sartre, and Camus, to name a few, that existential thinking moved from implicit considerations to a more focused examination (Greenberg, Koole, & Pyszczynski, 2004).

The increased prevalence of existentialism as a philosophical system likely arose out of significant global changes related to challenges to existing beliefs regarding the

meaning of life and large-scale industrialization (Kastenbaum, 2011). Darwin's work

challenged long held religious beliefs regarding life's meaning, while mechanized, large-

scale warfare challenged the beliefs of many that life was purposeful and sacred (Shaver

& Mikulincer, 2012). However, the early movement of existentialism into the field of

psychology began in part as a retort to early psychoanalytic thought due to dissatisfaction

with the limitations of traditional Freudian analysis in psychiatric research (May, 1994).

Following conventional Freudian analytical conceptualizations, new theorists began to

integrate the individual's phenomenological experiences in the analysis of normal and

pathological behavior (Shaver & Mikulincer, 2012). Otto Rank was perhaps at the

forefront of these theorists in his incorporation of the fears associated with life and death

throughout the lifespan and the intersection of these fears with creativity and the will

(Rank, 1958/1941). While existential psychotherapy, compared to other theoretical

systems, is generally thought to be lacking in specific methods or techniques, the

proponents of this approach believe there are several key elements that all individuals

encounter which are addressed in their clinical work (Mikulincer, Florian &

Hirschberger, 2004).

The preponderance of work in existentialism indicates there are four fundamentals

of subsistence humans come into conflict with which include: freedom, isolation,

meaninglessness, and death (Yalom, 1980, p. 8). According to this viewpoint, these

uniquely human issues present conflicts with our daily activities, tend to be deeply

rooted, and are often frightening in nature (Yalom, 1980, p. 8). The existential approach

posits that our mortality awareness is at the root of much of the anxiety and dread people

experience. Despite these fundamental aspects of our existence having the potential for significantly influencing our daily lives, individuals tend to avoid directly confronting them due to the terrifying aspects of their nature. One means by which individuals have attempted to cope with death anxiety has been through the creation of societies (Pyszczynski, Greenberg, & Solomon, 1997). According to the existential perspective, societies function as a means of providing meaning, predictability, and continuity through established belief systems that are supported by symbols and various rituals (Landau, Greenberg, & Solomon, 2008). While experimental social psychology has arguably investigated some of these existential issues since the 1950s with work on attitudes, group influences, reactance, morality, and values (Pyszczynski, Greenberg & Koole, 2004), the field of research in personality and social psychology has historically focused on smaller issues and observable facts (attitude change, prejudice, conformity, attributions) obtained from informal observations rather than a theoretical framework of a larger scale (Shaver & Mikulincer, 2012). It wasn't until the works of Jeff Greenberg, Tom Pyszcynski, and Sheldon Solomon in the mid-1980s that empirical investigations began examining the concepts identified by Yalom (Greenberg, Pyszczynski, & Solomon, 1986). It is with the first of Yalom's concerns, death, that TMT and this study addresses – in particular the focus is on the manner in which people confront or avoid their own mortality.

Terror Management Theory

TMT posits that threats to one's existence arise from awareness of our own mortality and instincts to preserve one's life. TMT is derived from Becker's work (1973)

that postulates that individuals cope with psychological threats to their existence by becoming more conservative with their cultural worldview, which in turn enhances one's self-esteem. This enhancement of self-valuing is thought to contribute to the belief that some aspect of the self will continue either symbolically (children, significant achievements) or literally (beliefs in an afterlife) after they have become deceased. According to Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon (1989), these cultural buffers against anxiety consist of beliefs in the values of one's cultural worldview as valid, and that one is living up to, or exceeding these standards. The existing literature about TMT indicates the majority of work has focused on 2 distinct hypotheses: the anxiety-buffer hypothesis; and the MS hypothesis (Burke, Martens & Faucher, 2010).

Anxiety-buffer Hypothesis

The anxiety-buffer hypothesis derived from TMT postulates that certain cognitive mechanisms and behaviors have evolved over time that serve to function as a buffer against terror associated with our potential nonexistence (Greenberg et al., 1992). The thought flowing from this hypothesis then implies that experimental manipulations aimed at enhancing or strengthening these mechanisms should either decrease perceived levels of anxiety, or decrease the use of defenses used to manage anxiety. Conversely, weakening these mechanisms should increase anxiety and/or increase anxiety-related defenses. The mechanism that has seen the largest empirical coverage has been self-esteem (Burke, Martens, & Faucher, 2010). One way in which self-esteem may be enhanced and maintained is by valuing and adhering to standards within one's culture

(Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004).   Societies and their

subsequent cultures offer anxiety reduction features through their prescription of suitable

behavior for members of that culture (Rosenblatt et al., 1989). These norms help provide

stability, predictability, and help to create meaning in individuals' lives as well as

enhance psychological well-being (see Greenberg, 2008; Mikulincer & Florian, 2002).

Part and parcel of this meaning includes beliefs regarding life, death, and the afterlife,

which may provide a sense of symbolic or literal immortality (Solomon, Greenberg,

Schimel, Arndt, & Pyszczynski, 2003). By holding fast to these beliefs, and engaging in

behaviors that are congruent with these beliefs, culture may thus shield us from death-

related anxiety through knowledge that our culture will transcend our mortality.

Conversely, this belief should also promote derogation of opposing cultural worldviews,

particularly when we are confronted with reminders of death.

Greenberg et al. (1992) found that transitory elevation of participants' self-esteem

(through the provision of false, positive feedback on an IQ or personality test) decreased

subjective anxiety and the physiological arousal of those exposed to graphic footage of an

elecroction or autopsy. In addition, Greenberg et al. (1993) found that those who

experienced temporary elevations of self-esteem or initially possessed high levels of trait

self-esteem exhibited decreased susceptibility to death denial defenses. A similar study

conducted by Hayes, Schimel, and Williams (2008), found that those high in

dispositional self-esteem, following presentation of a MS prime, exhibited less

motivation to avoid cognitions involving death (death thought accessibility) than those in

the control group. Other studies have yielded support for the self-esteem hypothesis

including the finding that: depressed participants engaged in more worldview defense

compared to controls (Simon et. al., 1996); depressed participants increased their

subjective view of their personal meaning to life following a MS prime (Simon et al.,

1998); participants exposed to a MS prime increased self-serving attributions over

controls (Mikulincer & Florian, 2002); participants exposed to a MS prime sought out

more self-esteem bolstering behaviors including identification of their positive features

related to physical attractiveness (Goldenberg, Pyszczynski, Greenberg, & Solomon,

2000) and their reported willingness to donate to charities (Jonas, Schimel, Greenberg, &

Pyszczysnki, 2002).

A problem associated with the assessment of self-esteem has been the observation

that while people may often report high self-worth and confidence in their abilities

through self-report or interview methods, they may actually doubt themselves and at

times feel unworthy (Grumm, Nestler, & Collani, 2009). Implicit self-esteem tends to

refer to individuals' inclination to evaluate themselves unconsciously in a rather

automatic manner, while explicit self-esteem refers to more reflective evaluations of the

self. In an important series of studies highlighting the importance of the implicit nature

of these effects, Schmeichel et al. (2009) found that subjects low in implicit self-esteem

engaged in more worldview defense following a MS compared to those high in implicit

self-esteem and that subjects low in implicit self-esteem but high in explicit self-esteem

endorsed more positive descriptors of their personality following a MS. More

importantly, the authors also found that boosts to implicit self-esteem (through subliminal

presentation of *I* followed by positive character traits) reduced the impact of a MS on

worldview defense. It has also been found that factors associated with high self-esteem,

for instance secure attachments (Mikulincer, Florian, & Hirschberger, 2003) and

hardiness (Florian, Mikulincer, & Hirschberger, 2001), tended to decrease MS effects.

Mortality Salience Hypothesis

Perhaps the most pronounced investigations that have lent support to TMT come

from the MS hypothesis. This hypothesis postulates that if cultural worldviews indeed

function as a protective mechanism against death-related apprehensions, then death

reminders should enhance behaviors aimed at bolstering faith in an individual's

worldview or incline them to defend their specific cultural worldviews against opposing

views (Solomon, Greenberg, & Pyszczynski, 2004).   A meta-analytic review of the TMT

literature indicated multiple, and often creative means of inducing a MS prime (Burke,

Martens, & Faucher, 2010). In this review, the authors found that the predominant means

utilized to induce a MS prime was to simply ask participants to think about their own

death, and then write some of their thoughts and feelings elicited by this prime. The

authors also concluded that the studies reviewed found that control primes, in which other

aversive events or topics (e.g., dental pain, ostracism, uncertainty) are induced, failed to

yield similar effects on worldview defense. Multiple studies have also failed to yield any

information that suggests that emotional states mediated these effects; nor has cognitive

load, cultural values, or increased self-awareness been found to account for the observed

effects (Burke, Martens, & Faucher, 2010).

There is a considerable amount of research that has reliably demonstrated that the

experimental presentation of a MS prime affected participants' attitudes; these have

shown increasing positive evaluations of those who uphold one's worldview and increasing negative evaluations of those who hold opposing views (Greenberg et al., 1990; Greenberg et al., 1994; Greenberg et al., 1992; Mikulincer & Florian, 1997; Ochsmann, & Mathy, 1994; Rosenblatt et al., 1989). Studies have also demonstrated that presentation of a death reminder increased optimal individuality strivings for self-sufficiency, autonomy, and physical and mental health maintenance, (Landau, Greenberg, & Sullivan, 2009; Simon et al., 1997) and increased approximations of social agreement for culturally pertinent attitudes for those in minority positions (Pyszczynski et al., 1996). The following studies have also provided support for the hypothesis that a MS not only affects attitudes but influences behaviors as well. Results from a study by Greenberg, Simon, Porteus, Pyszczynski, and Solomon (1995) indicated that participants exposed to a MS prime exhibited greater discomfort in using cultural icons (American flag, crucifix) in a sacrilegious manner and took longer to solve problems requiring use of these objects. McGregor et al. (1998) found that participants exposed to a MS prime administered considerably more hot sauce to a hypothetical peer who wrote a paper verbally attacking the participants' political affiliation compared to hypothetical peers who supposedly wrote positive or neutral papers. Ochsmann and Mathy (1994) observed that, following a MS, German participants sat closer to German confederates and further from Turkish confederates, and Rosenblatt et al. (1989) found that judges tended to prescribe stiffer fines for prostitution following a MS induction.

Dual Process Hypothesis

Greenberg et al. (2003) postulated that defenses utilized to combat mortality fears are in the long run concerned more with tacit knowledge of one's demise rather than with conscious experiences of terror. Greenberg's assumption is in part derived from the relatively large body of TMT studies that led Pyszczynski, Greenberg, & Solomon (1999) to develop a dual process paradigm focusing on the cognitions involved in the processes by which death-related thoughts influence behavior. Their model proposes that conscious reflection of death initially elicits proximal defenses that are primarily rational and threat-focused in origin. The first supportive evidence for the usage of such defenses was found in a study by Greenberg, Pyszczynki, Solomon, Simon, and Breus (1994). The authors found that immediately following a MS presentation, death thought accessibility was low; however, when presented with a cognitive distraction task following the MS prime, DTA increased. The explanation was given that such defenses commonly take the form of reduced access to death-related thoughts through suppression (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997; Cook, Arndt, & Goldenberg, 2003), avoidance of self-awareness (Arndt, Greenberg, Simon, Pyszczynski, & Solomon, 1998), or by efforts aimed at denying our vulnerability to risk factors for premature death, such as making plans to eat in a healthier fashion, making tentative plans to quit smoking – or to begin an exercise regimen (Arndt, Routledge, & Goldenberg, 2006; Arndt, Schimel, & Goldenberg, 2003; Greenberg, Arndt, Simon, Pyszczynski, & Solomon, 2000; Routledge, Arndt, & Goldenberg, 2004).

Once death thought accessibility is reduced, distal terror defenses are postulated to become activated in order to manage the potential for angst brought about by increased accessibility to more implicit thoughts associated with death (Pyszczynki, Greenberg, & Solomon, 1999). These distal defenses involve the maintenance of self-esteem through the valuing of an individual's cultural worldview and having faith that this worldview is just and right. However, unlike proximal defenses, distal defenses tend to be more experiential in nature and not necessarily connected to mortality concerns in any logical or semantic manner (Arndt & Vess, 2008). For example, in a series of studies, Cox and Arndt (2012) found that individuals exposed to a MS prime tended to increase self-reports of their commitment to a romantic partner and exaggerated the regard they perceived they receive from their partner. They also found that increasing perceived regard through an MS prime reduced death-thought accessibility. In general, the results from the series of studies indicated that perceived regard from a romantic partner seemed to serve a crucial function in the pursuit of close attachments in the face of existential concerns. Also, in a series of studies by Vess, Arndt, Cox, Routledge, and Goldenberg (2009), MS primes increased participants' acceptance of prayer as a viable substitute for medical interventions, increased participants' acceptance of peoples' right to refuse medical treatment, and increased their willingness to rely on faith-based interventions.

From an experimental viewpoint, these defenses appear consistently following some distraction task that has followed the presentation of an explicit MS prime and after the presentation of subliminal stimuli (crossword puzzles, word fragment, and word finding tasks using words associated with the death – *coffin, casket,* for example)

associated with death (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997;

Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994; Maxfield et al., 2007). Thus,

people seemed likely to be largely unaware of the defenses utilized to manage their

behavior. A review of such studies (Pyszczynski et al., 1999) indicates that the more

distal the defenses are, the less likely the form of the defense will be connected to the

threat.

Critiques of Terror Management Theory

TMT is not without its detractors. Holbrook, Sousa, and Hahn-Holbrook (2011)

provided an alternative suggestion to the noted effects of presentation of a MS prime.

These authors posit that the presentation of a MS tends to create a heightened state of

reactivity to stimuli with associated affective characteristics. Holbrook, Sousa, and

Hahn-Holbrook argued that unconscious vigilance for affective targets underlies the

observed effects, and not necessarily behaviors associated with one's cultural

worldviews. It is beyond the scope of this study to directly address this criticism.

Another complaint has centered on the observation that effects similar to a MS

prime have been obtained through other means including: having participants think about

making a difficult personal decision; presenting participants with open-ended questions

regarding uncertainties; asking individuals to reflect on thoughts and feelings regarding

being robbed; asking participants to reflect on being ostracized; and being provided

information that one's life lacks meaning (Burke, Martens & Faucher, 2010; McGregor,

Zanna, Holmes, & Spencer, 2001).

Another critique centers on the hypothesis that motivational factors may actually account for the observed effects of a MS prime. Heine, Proulx, and Vohs (2006) proposed a constructivist view called the Meaning Maintenance Model (MMM). This model postulates that individuals have an inherent inclination to ascribe meaning to events and objects in their lives, and that when these cognitions become interrupted, anxiety ensues. In the presence of anxiety and uncertainty, individuals tend to engage in compensatory reaffirmations of meaningful structures that help people to make sense of their worlds and to provide predictability.

Lastly, another critique of TMT involves challenges to the assumptions of Landau, Solomon, Pyszczynski, and Greenberg (2007) that TMT is highly compatible with current thought within the field of evolutionary psychology. According to evolutionary psychologists (Buss, 1997; Kirkpatrick & Navarrete, 2006), fear in the face of one's mortality has evolved through the process of natural selection as it elicits physiological and psychological mechanisms that help ensure survival (e.g., fight or flight responses). These authors argued against the notion that anxiety-buffering mechanisms could have evolved, as this would undermine the adaptive function of the fear reactions. Within the evolutionary field, Coalitional Psychology has also been proposed as an alternative explanation for TMT. Navarrete and Fessler (2005) proposed that an inclination to seek out social groups has evolved alongside fear reactions to threat. These coalitions are said to serve a variety of protective functions other than simple safety in numbers, and over time, mechanisms have evolved to support conditional cooperation and punitive sentiments towards those who tend to free-ride on the group. In

the face of threats, this theory suggests individuals tend to devote resources to protecting their membership status by either valuing the group as whole, denigrating those who devalue or otherwise do not contribute to the group's survival, or by increasing their value to the group. In response to the evolutionary psychologists' claims, TMT theorists point out that these theorists often do not distinguish between immediate danger-based fear versus existential future-oriented fear regarding an unknown but certain mortality. They also point out that not all anxiety is adaptive in function (Landau et al., 2007).

Summary of the Results of TMT

A large body of evidence indicates that when mortality thoughts are consciously activated, individuals attempt to eliminate these thoughts using proximal defenses to redirect them from the focus of their attention (Burke, Martens & Faucher, 2010). Common means used to remove them include suppressing death-related thoughts and imagery, avoiding focusing on oneself, or engaging in cognitive preferences that diminish a perceived vulnerability to death (Greenberg et al., 2007). The forms of thought suppression seen with conscious mortality concerns appear to involve both active, self-initiated cognitive efforts and apparently more instinctive means. However, the preponderance of findings from research involving TMT suggests that the effects induced by the presence of a more implicit MS produce stronger effects (Burke, Martens, & Faucher, 2010). Explicit MS presentations require either a delay or cognitive distraction in order for death thought suppression to occur, while subliminal MS presentations, or an explicit MS presentation immediately followed by a cognitive load task, require no such methodological procedures (Pyszczynki et al., 1994). The following section highlights

changes in the conceptualization and methods of empirical research on the topic of sexism.

Sexism

For the past 60 years there have been gradual shifts in both the social and political environment in the United States and other industrialized nations that have influenced overt expressions of prejudice in that exhibition of hostile discriminatory behaviors are no longer socially acceptable (Blanchard, Lilly, & Vaughan, 1991; Tougas et al., 1995). Since the 1980's, an even stronger norm has developed that discourages verbal or nonverbal behaviors that espouse bias towards groups based on race, and eventually based on sex. While some research has shown significant declines in gender and racial prejudice within the workplace and community at large, the traditional approach to studying such tends to overly rely on explicit measures; studies utilizing more implicit measures of both racial and gender prejudices, have found biases still quite prevalent (Carpenter, 2000; Kawakami & Dovidio, 2001; Rudman & Kilianski, 2000). Explicit measures have historically relied on self-report measures regarding participants' gender beliefs. Implicit gender stereotypes are thought to reflect repetitive cognitions that associate women and men with various stereotypical traits and roles at an involuntary level, and are often assessed using the Greenwald, McGhee, and Schwartz's (1998) Implicit Association Test (Rudman & Kilianski, 2000). While slower to develop, changes in social norms and legislation has eventually focused on gender-related issues, and subsequently sexism has been made unacceptable as a social practice, and legal recourse is provided for those who are the targets of sexism (Swim, Aikin, Hall, & Hunter, 1995).

While some question whether sexism is a form of prejudice, Glick et al. (2000) argue that the ramifications of sexism are broad; sexists beliefs and attitudes have been linked to domestic violence, perpetuation of the rape myth, sexual mutilation of young females, lack of high-status jobs for women, lower standards of living for women in many nations, less educational opportunities for women, homophobic behaviors, and hate crimes against homosexuals. Ragins and Scandura (1995) found that 42% to 88% of employed women reported having been sexually harassed at some point in their careers. Two influential authors argue that sexism is a form of prejudice, but unlike racial or ethnic prejudice, is characterized by ambivalence towards women, rather than being fueled solely by antagonism towards women as a group (Glick & Fiske, 1996).

Bases for Sexism

Sexism has been described as any act, attitude, or institution that restricts, denigrates, violates, or otherwise discriminates against individuals or groups of individuals based on their sex, gender roles, or sexual orientation (O'Neil, 2008). Sexism has also been expressed as the sociopolitical and economic manifestation of patriarchal societies in the lives of women and men (O'Neil, 2008). Sexism has long been a way of life in many regions of the world since recorded history began, and often reflected stereotypical roles for women and men, and a tendency to place women in an inferior light (Swim et al., 1995). The oft-depicted scene in many movies is of the Cro-Magnon man clubbing the object of his attention over the head and dragging her by the hair back to his cave. This image has been accepted by many without evidence to support that events such as these ever occurred (Harris, 1989). As humanity has evolved, media

portrayals of our sociological advancements nevertheless continue to foster sexist ideals and attitudes such as seen in the perpetuation of the rape myth supported in *Gone with the Wind* and many other films and television productions (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011).

From a philosophical standpoint, essentialism refers to the belief that people or groups or people have an underlying and unmalleable essence that is associated with their identity - which can lead to in-group versus out-group adversarial relationships (Haslam, Rothschild, & Ernst, 2000). In regards to gender, essentialism constitutes the belief that gender and sexuality are largely determined essential features of one's biology or psychological nature. For example, essentialist approaches have often viewed men as stronger, more aggressive and violent, logical, independent, and lustful. Women under this viewpoint have tended to be viewed as more emotional, passive, nurturing, verbal, interested in building relationships, and lacking in libido. Summaries of research into these beliefs have indicated that psychological essentialism has significantly contributed to negative attitudes and behaviors between groups (Brescoll & LaFrance, 2004; Keller, 2005). Morton, Postmes, Haslam, and Hornsey (2009) explored how an individual's beliefs about the stability of one's social hierarchies moderated the links between essentialist beliefs about gender and sexism. In this series of studies, the authors presented subjects with articles to read concerning equality between men and women; some were presented stimuli suggesting that gender-based inequality was stable; others were presented with stimuli indicating gender-based inequality is in the process of change; and others were presented with information that the inequalities had already

changed significantly. The studies found that sexism was positively associated with

essentialist beliefs (but only among the male subjects) and only when the presented

inequality was perceived as being in the process of change. The authors also found that

when subjects were exposed to essentialist theories regarding gender differences, both

male and female subjects endorsed higher acceptance of the presented inequalities, and

male subjects endorsed more support for discriminatory practices. The authors concluded

that gender-related essentialism in itself is not necessarily linked to sexism, but that

essentialism tends to be invoked as a defense to protect high social status when change

threatened this status. More modern forms of sexism tend to dissuade derogation of a

group based on their sex, yet more subtle and covert manifestations still abound (Good &

Rudman, 2010).

Hostile versus Benevolent Sexism

Hostile sexism has come to be considered an antagonistic attitude toward women,

who are often viewed as trying to control men through feminist ideology or sexual

seduction (Fiske & Glick, 1995). Hostile sexism towards women is thought to arise

because the dominant male social groups have been inclined to create ideologies focusing

on perceived inferiorities of those seen as being a part of the minority (Glick & Fiske,

1996). More recently, other forms of sexism have been conceptualized that reflect

changing social norms. For example, Glick et al. (2000) proposed that some individuals

hold sexist views of women that tended to place them in superior positions to men (e.g.,

exhibit greater moral behavior, demonstrate better taste, greater warmth, are more

nurturing) – a phenomenon referred to as benevolent sexism. While the attitudes

associated with this benevolent sexism are often considered to be relatively positive, they do present problems as participants high in benevolent sexism tended to belittle women, assumed women need special treatment or that they should be raised on a pedestal (Fiske, Cuddy, Glick, & Xu, 2002). When individuals or a society reinforce women for conforming to patriarchal standards for women, benevolent sexism then continues to foster the gender inequality endorsed by those who ascribe to hostile sexist beliefs (Fiske et al., 2002). Such views may also contribute in some way to the objectification of women as being motherly or as sex objects. Glick and Fiske (1996) have also proposed the concept of ambivalent sexism, which consists of a gender ideology comprised of both hostile and benevolent prejudices towards women. This ambivalence appears to result from basic features associated with relationships between women and men. Men, for all the power their sex role provides, are still dependent upon women as nurturing mothers, supportive wives, and as a source of intimacy that males find extremely difficult to obtain from the same sex (O'Neil, 2008).

Negative Outcomes of Sexism

As previously mentioned, the outcomes of hostile sexism are associated with violence towards women, spousal abuse, lower-status employment opportunities, perpetuation of rape myths and the use of disparaging humor (Glick et al., 2000). In an attempt to identify psychological predictors of sexual harassment, Begany and Milburn (2002) studied whether hostile sexism, benevolent sexism, and various personality factors contributed to these behaviors. While benevolent forms of sexism did not predict an increased risk for sexual harassment, hostile sexism (as measured by the Ambivalent

Sexism Inventory; Glick & Fiske, 1995) along with the personality characteristic of authoritarianism (as measured by the Right-Wing Authoritarianism Scale; Altemeyer, 1981), highly predicted male subject's self-reported likelihood of sexually harassing a female peer. Benevolent forms of sexism are also associated with multiple negative outcomes for women. Good and Rudman (2010) found that benevolent forms of sexism exhibited by male interviewers were highly associated with negative views of a woman's competency and their desirability for being hired.

What has been less clear is the direct and indirect impact of more covert forms of sexism at multiple levels within society. In line with the assertions of Carpenter (2000) and Kawakami and Dovidio (2001), Dardenne, Dumont, and Bollier (2007) examined the potential implications of benevolent sexism compared to hostile sexism in terms of negative outcomes for women. In a series of four experiments, benevolent forms of sexism (as presented by written statements in a hypothetical job interview) were found to have a more detrimental effect on the subject's performance on an abstract problem-solving task in the form of more mental intrusions (regarding their self-efficacy), decreased concentration, preoccupation with tasks, self-doubt, and lowered self-esteem. One of the experiments indicated that stronger gender identification provided a protective benefit against hostile forms of sexism, but not benevolent forms. The authors, while not endorsing any forms of sexism, speculated that hostile sexism might paradoxically serve women's caused better in that it may serve to enhance their performance upon cognitive tasks and increase feelings of competency. Fischer (2006), in a study examining sexist attitudes in women, found that female participants who were told about research findings

that men hold negative attitudes towards women in general endorsed the highest levels of benevolent sexist attitudes towards women compared to women who were told research shows men have positive or neutral attitudes towards women. The findings supported the notion that benevolent and hostile forms of sexism are different but related concepts, and that they may serve different functions for women in the context of various social settings such as: work, school; and peer groups (Fischer, 2006).

In an interesting study that requires further exploration, Hurst (2011) found that higher levels of hostile sexism (towards women) in women, along with a history of sexist events in their lives, strongly and positively predicted internalized sexism and self-silencing. Self-silencing refers to behaviors engaged in that minimize or eliminate certain aspects of the self in interpersonal discourse in an attempt to maintain relationships. The author proposed that the indirect effects of hostile sexism on overall psychological distress levels were at least partially mediated by self-silencing. This notion would appear to be further reinforced by the findings from a series of studies conducted by Moya et al. (2007) in which female participants' reactions to protective restrictions were gauged. The studies found that only those female participants who were high in benevolent sexism accepted a prohibition against driving on a long trip, were accepting of a romantic partner's prohibition of participating in a potentially dangerous practicum experience, and accepted a group-based justification for their protection from engaging in interviews with criminals. The authors proposed that, at least for some women, benevolence might become fused with dominance in paternalistic setting, and lead to severe restrictions on women's growth potentials.

Language and Sexism

Another interesting area of research concerning the impact of sexism has centered on gender biases in language usage. Cralley and Ruscher (2005) conducted two studies to determine whether modern sexism in men (as measured by the Modern Sexism Scale) would influence their use of gender-biased terminology to describe women or characteristics associated with women. In the first study, male subjects who reported being low in sexism tended to use significantly fewer gender-biased terms (e.g., *lady*, *girl*, or *babe* versus more gender-neutral terms) on a written assignment than male subjects who reported themselves as being high in sexism. The second study duplicated the first, except that the task involved in this study was oral in nature. While again men low in sexism used less gender-biased language (e.g., *woman* versus *girl*), they only did so when they were not engaged in another cognitive busy but irrelevant task at the time. The authors suggest that even for male subjects low in sexism, the use of gender-neutral language requires effort.

As with more overt forms of aggression in our society, manifestations of sexist beliefs and attitudes are often embedded in humor (Thomas & Esses, 2004). Such practices tend to diminish an individual's willingness to respond to offensive material in a manner congruent with their own thoughts and feelings (Thomas & Esses, 2004). Ford (2000) conducted a series of three experiments in order to examine the impact of exposure to sexist humor to those low or high in hostile sexism. The first experiment indicated that when high hostile sexist subjects were exposed to sexist jokes, they subsequently endorsed greater tolerance of a sexist event. Those high in sexism, when

exposed to a non-sexist joke or a non-humorous sexist comment, endorsed significantly less tolerance for a sexist event. The two subsequent studies indicated that the effects of the sexist humor for those high in hostile sexism were reduced when these subjects were either informed the sexist joke was a serious matter, or when the group membership of the joke teller was considered deviant by the subjects. The author suggested that these findings indicated exposure to sexist humor impacts the boundaries of what is considered socially acceptable behavior and can lead to greater tolerance of sex discrimination. The author also suggested that exposure to sexist humor impacts the boundaries of what is considered socially acceptable behavior, possibly leading to greater tolerance of sex discrimination. Derision towards women, embedded in humor, may lead to the development of an implicit, normative standard for the acceptance of sexism. As indicated by Ford and Ferguson (2004), humor establishes a conversational rule of levity that may shut down critical thinking regarding the message being implied by sexist humor. Consequently, this may lead to the establishment of a social norm that is tolerant of prejudice and discrimination (Viki, Thomae, Cullen, & Fernandez, 2007). Research supporting this assumption has found that enjoyment of sexist humor was related to negative rape-related attitudes and the self-reported likelihood of forcing sex in the future (Ryan & Kanjorski, 1998): mere exposure to sexist versus non-sexist humor increased participants' levels of self-reported rape proclivity (Viki, Thomae, Cullen, & Fernandez, 2007) and exposure to sexist versus non-sexist humor increased participants' acceptance of a sexist event such as sexual harassment (Ford, Wentzel, & Lorion, 2001).

Thomas and Esses (2004) examined individual differences in male subjects' responses to sexist humor (towards both males and females) in relation to the variables of sexism and general prejudices, and assessed their perceptions of the funniness and seriousness of the disparaging joke and whether they would be likely to repeat the humor. The findings from this study indicated that men higher in hostile sexism rated sexist humor towards women as more humorous and endorsed a higher likelihood of repeating the derisive comments in the future. However, the level of the relationship between the level of hostile sexism and the likelihood of repeating a sexist joke was mediated by the perceived level of humor of the joke.

Kochersberger (2012), in an attempt to understand distinct variables associated with appreciation for sexist humor denigrating women, exposed participants to various humorous statements, had them rate the statements across several quality variables, and then assessed the participant's level of identification with the female role and women in general. Kochersberger found that female participants' dis-identification with women in general predicted higher appreciation of sexist humor directed toward women, and that female participants who endorsed higher levels of acceptance of hostile sexism identified less with feminists compared to other subgroups of women. The results also indicated that these participants tended to perceive sexist humor that disparages feminists less disparaging than humor that denigrates women in general or housewives (Kochersberger, 2012). The implications from these studies suggested that women who identify less with women as a relevant social category tend to be more accepting of sexist humor. The

following section details the concept of gender role conflict, research in this area, and how it contributes to sexism.

Gender-Role Conflict

Gender-role conflict (GRC) is conceptualized as a psychological state in which socialized gender roles have negative consequences for individuals and groups (O'Neil, 1981). This state is thought to arise when rigid or otherwise highly restrictive gender roles lead to personal restriction, devaluation of the self or others, or violation of the rights of self and others. The likely outcome from experiencing this form of conflict is a restriction of human potential for growth or a restriction of another's potentials (O'Neil & Egan, 1992).

The concept of GRC is a more complex and multidimensional construct than might be apparent at first glance. The process of acquiring gender roles from early childhood to late adulthood tends to be complex and idiosyncratic, and therefore highly unique among individuals (Liben & Bigler, 2002). While race, class, age, sexual orientation and ethnic diversity issues have been indicated to be involved in the experience of GRC, empirical research interest in this area was relatively scarce prior to the mid-1990s (Levant & Pollack, 1995). However, since this time, a wealth of research has been conducted examining various processes involved in the acquisition of gender roles and the often deleterious effects of stereotypical masculine gender roles (O'Neil, 2008). According to O'Neil (1981), GRC encompasses cognitive, emotional, behavioral, and unconscious problems associated with the socialized gender roles learning in sexist and patriarchal societies.

Based on O'Neil's theory, GRC operates at four overlapping levels: cognitions, behaviors, affective experiences, and unconscious experiences (O'Neil, 1981). Role conflict on the cognitive level originates from restrictive thinking about gender roles of masculinity and femininity; thus, worldviews and stereotyped attitudes about men and women result from these cognitive restrictions (O'Neil, 1981). Role conflict experienced at the behavioral level is the conflict one encounters with masculinity-femininity as we interact with ourselves and with others (O'Neil, 1981). Role conflict as an unconscious phenomenon reflects intrapsychic and perhaps repressed conflicts with masculinity-femininity that are beyond conscious levels of awareness (O'Neil, 1981). According to O'Neil (1982), role conflict at the affective level emanates from deep emotional turmoil about masculine and feminine gender roles. Thus, according to O'Neil (2008), it becomes evident when one attempts to examine these levels of GRC that the assessment of this conceptualized conflict at an individual level becomes an elaborate task.

Males encounter GRC directly or indirectly within six different contexts: deviations from or violations of gender role norms (Pleck, 1981); attempting to meet or failing to meet norms of masculinity; discrepancies between real self-concepts and ideal self-concepts of masculinity; through stereotypes (Garnets & Pleck, 1979), devaluing, restricting, or violating themselves (O'Neil, 1990), and devaluing, restricting, or violating others due to gender role stereotypes (O'Neil, 1990). These six contexts, in combination with the four levels of GRC, provide a conceptual foundation for personal experiences with this type of conflict. O'Neil and Egan (1992) developed a diagnostic schema that specifies three experiences of GRC individuals encounter within three distinct situational

contexts. The contexts include GRC within oneself, GRC created by others, and GRC exhibited towards others. These contexts thus imply that GRC can be experienced internally by the individual, stimulated by the presence of others' conflicts, or directed towards others (O'Neil & Egan, 1992).

Personal experiences involving GRC were subsequently defined by O'Neil (2008) as the negative outcomes of gender role in terms of role devaluations, restrictions, or violations. In the presence of these conditions, individuals may be at risk for psychological stress and physical health problems. For instance, a male who conforms to masculine norms of emotional inexpressiveness (prevalent in many societies) may be at risk for stress-related health problems as well as psychological adjustment difficulties. While women tend to be prone to disorders of an internalizing nature, men tend to exhibit significantly higher incidences of alcohol and drug abuse, and antisocial personality disorder (Nolen-Hoeksema & Hilt, 2006; Rogstad & Rogers, 2008). Males are also far more likely to be involved in spouse abuse, sexual abuse, and violent crime than women; evidence suggests that gender differences in social cognitive skills may contribute to this difference (Bennet, Farrington, & Huesmann, 2005).

Thus, it is likely that certain culturally sanctioned masculine styles of coping – toughness, aggressive responses, combativeness – often have maladaptive consequences for men and their families (Pleck, 1981). Within the context of sports, business competition, and military operations, the masculine ideals of initiative, aggressiveness, and displays of force are lauded. In the context of armed robbery, physical and sexual assaults, the masculine imperatives of aggressive stances are less commended.

Doyle (1989) was one of the first to theorize about the unhealthy adherence to traditional masculine imperatives, including competitiveness, power acquisition, control, and succeeding at all costs. O'Neil (1982) hypothesized that culturally sanctioned homophobia and fears of femininity are cardinal underlying precepts of masculinity that have produced over-conformity in men's gender role identity. This conformity has been linked to premature mortality, hazardous lifestyle choices, and risk-taking behavior patterns for men (Cleary, 1987).

Gender role strain is conceptualized as being produced by GRC; it is typically defined as excessive mental or physical tension created by GRC and the effects of masculine, feminine, or androgynous roles (Garnets & Pleck, 1979). When inflexible gender role norms set standards that do not afford individuals the opportunity to express themselves freely, two outcomes typically occur. One outcome consists of the adherence to and support of rigid norms and behaviors and the reinforcement of the same in others. Individuals who restrict others' gender role behaviors are thought to be insecure, lack insight into their own gender identity, and may pay a price for the restriction or devaluation of others (e.g., defensiveness or guilt). People may also choose to resist the devaluation of their gender behavior by expressing themselves regardless of others' expectations or reactions. However, this is often a difficult position to undertake as there is often very little reward inherent for transgressing traditional gender roles (Rebecca, Hefner, & Oleshansky, 1976). Maccoby (2002) reported that children as young as 4 years of age tend to reinforce boys for engaging in stereotypical masculine play and reject or socially punish boys who engage in gender atypical play. In addition, those who

deviate from traditional gender roles are likely to experience intense emotion towards individuals who restrict or devalue their behaviors and attitudes. In many social settings, these emotions cannot be expressed; this can result in lowered self-esteem and subsequent problems with anger, anxiety, and depression (Addis, Mansfield, & Syzdek, 2010).

Patterns of Gender Role Conflict

At the core of O'Neil's gender role conflict theory is the concept of the masculine mystique and masculine value system and the socialization processes for men's gender role. At the heart of this tenet is the idea that various negative aspects associated with masculine stereotypes represent a complex value and belief system that defines prime masculinity within a given society (O'Neil, 1981). These values – which originate from learning processes in early socialization experiences – tend to be based on very rigid stereotypes about men, masculinity, and femininity (O'Neil, 1982). According to O'Neil, these concepts combine to produce a fear of femininity that produces four distinct patterns of gender role conflict: restrictive emotionality; restrictive affectionate behavior between men; conflicts between work and family relations; and success, power, and competition issues. Manifestations of restrictive emotionality involve males' difficulties or fears associated with expressing feelings and perceptions of competency in finding the appropriate words to express basic emotions (O'Neil, 2008). Restrictive affectionate behavior between men is associated with limited means to express feelings and thoughts in the presence of other men and problems with touching other men (O'Neil, 2008). Conflicts between work and family relations involves difficulties males encounter in

balancing obligations among work-school and family demands; these can result in health problems, stress, a lack of leisure activities, or difficulties relaxing (O'Neil, 2008). Problems associated with success, power, and competition issues arise from persistent worries regarding achievement, acquisitions, competence, failure, and the need to obtain power and have dominance or influence over others (O'Neil, 2008). These four patterns of GRC are assumed to interact with both institutional and personal aspects of sexism (O'Neil, 1982).

Literature on Differing Methodologies

The review of the existing literature indicated that the majority of investigations that have tested the tenets of TMT have been quantitative studies (Burke, Martens, & Faucher, 2010). As previously mentioned, there is a considerable gap in the literature regarding the role of gender-related variables and how they may either be impacted by, or influence, the effect of the presentation of a death reminder. While there have been multiple and often creative methods utilized to induce an experimental MS (for example, subliminal presentation of death-related words; word finding and word creation tasks with implicit death-related content), a study by Rosenblatt et al. (1989) seems to have pioneered the most prevalent experimental manipulation. The authors produced a MS prime condition by asking participants to respond in writing to two reflective questions following the participants reading a statement asking them to think about their emotions at the thought of their own death. In contrast, the similar in design control condition asks the participants to respond the same questions following asking them to think about their emotions to a situation involving dental pain. The predominant finding in the literature

has been that this method delivers rather consistent and robust effects and that the responses are independent of cognitive load and emotional states (Burke, Martens, & Faucher, 2010). However, subsequent research (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994) has demonstrated that the effects of an MS induction are more pronounced following a brief delay involving some distraction task. This finding agrees with the hypothesis that much of the existential terror experienced by individuals operates at an unconscious level and supports the notion that distal defenses may be a primary coping mechanism (Pyszczynski, Greenberg, & Solomon, 1999).

The meta-analysis by Burke, Martens, and Faucher (2010) also indicated that the predominant inferential statistic utilized to make sense of the terror management data was analysis of variance (ANOVA). As the study involved more than one dependent variable, a multiple analysis of variance (MANOVA) was used to examine the data and assist in making reliable comparisons between the variables in the present study. According to O'Brien and Kaiser (1985), a MANOVA would be the preferential procedure for this design in order to reduce the risk of alpha-level errors. The existing literature also indicates limited research examining possible moderating variables that may influence MS effects. As this study hypothesized that conflicts with the masculine gender role (previously unexamined in TMT research) may serve as a moderating variable influencing the impact of the MS induction, a multiple analysis of covariance (MANCOVA) was also conducted in order to make comparisons between the group means while controlling for gender role conflict.

Summary

This chapter provided pertinent information regarding empirical investigations of mortality concerns. The origins of TMT were discussed along with the evolution of the theory over thirty decades of research, along with various hypotheses derived from the theory. Considerable evidence exists supporting the anxiety-buffer and MS hypotheses, along with the later developed dual-process models, and the effects observed in the myriad of studies so far have yielded rather robust effect sizes (Burke, Martens, & Faucher, 2010). However, the literature appears to be limited in terms of research examining TMT constructs and gender-related variables. The literature review also described various evolving conceptualizations of sexism and gender role conflicts, how these concepts may be fruitfully assessed, and the negative impact towards individuals and societies from overly restrictive, stereotypical considerations of gender. The following chapter (Chapter 3) describes the methodology used in this study; it also discusses the sampling method, the various instruments used, the methods of data collection and analysis, and sources of ethical concern involving recruitment of participants and their participation.

Chapter 3: Research Method

Introduction

The purpose of this study was to examine how the presentation of a MS affects participants' ratings of hypothetical peers who either adhere to or violate traditional gender stereotypes. The study examined whether presentation of a MS affects participants' scores on a measure of ambivalent sexism. Masculine gender role conflict – as a moderating variable – was also examined. The chapter covers the following topics: the study's design, participants, instruments, data analysis, and ethical concerns. A rationale for the design is discussed as well as the characteristics of the population from which the sample was obtained and an explanation of the means for determining the sample size.

Research Design and Approach

The study used a quantitative research design that examined the effect of the presentation of a death reminder on gender attitudes. The study involved a 2 X 2 between-subjects design, with two levels of the independent variable (MS vs. the control, pain salience conditions). The dependent variable consisted of scores on the sexism scale and the opinion ratings of a depiction of a stereotype conforming vs. stereotype nonconforming peer. A multiple analysis of variance (MANOVA) was the preferred inferential statistic in this design because the repeated use of an analysis of variance (ANOVA) would increase the risk of alpha-level errors and a univariate ANOVA would not necessarily allow for reliable comparisons between the dependent variables (O'Brien & Kaiser, 1985). Since it was also hypothesized that conflicts with the masculine gender

role may serve as a moderating variable and influence the impact of the MS induction, a separate multiple analysis of covariance (MANCOVA) was performed to allow comparisons between the group means while controlling for gender role conflict as a covariate. Based on a definitive review of the distinction between moderator and mediator variables by Baron and Kenny (1986), gender-role conflict can be considered a potential moderating variable in this design as the construct is measured along a quantifiable dimension; it was predicted to affect the strength of the relationship between the predictor and criterion variables.

Threats to Validity

Striking a balance between internal and external validity has long been a concern of social scientists (Mitchell, 2012). While the nature of the study's design negates some forms of threats to internal validity (history, maturation, repeated testing, selection-maturation interaction, attrition, and diffusion), the potential for problems with selection bias and experimenter bias were present. In order to reduce these threats, participants were be recruited from a variety of courses on the UTPA campus. Random assignment of subjects to either the experimental or control condition likely enhanced the internal validity of the proposed study (Brewer, 2000). Also, a double-blind procedure was employed so that neither the participants nor the researcher was aware of the applied independent variable within the survey packets. As the study involved college students as participants, threats to external validity exist in the form of inherent problems in generalizing the findings to other demographic groups and across a variety of settings other than a college psychology laboratory.

Setting and Sample

Participants. The participants for this study consisted of a sample of undergraduate male students from UTPA, which is located along the Texas – Mexico border. UTPA has an approximate enrollment of 19,000 students comprised of the following ethnic demographic: 89% Hispanic; 4% White, non-Hispanic; 2% Asian-American; 1% African-American; and 4% identified as Other. Typical undergraduates range in age from 18-24 years. Participants were selected from this particular setting because of the following factors: (a) accessibility; (b) most were likely to be of legal age to provide informed consent and have the necessary reading skills to read consent forms and instruments; and (c) the participants were presumed to be of a chronological age that has exposed them (directly or indirectly through media sources) to a variety of death-related events. According to Burke et al. (2010), the majority of previous studies involving MS inductions have utilized undergraduate student populations. Participants were recruited from a variety of undergraduate courses by obtaining instructor permission to either announce the study in class or by having flyers posted on course webpages announcing the study and directing students to contact information. Participants were offered extra credit (at their instructor's discretion) for their participation in the study.

To help ensure protection of participants, a request for IRB approval from the UTPA campus was submitted. Following submission of the proposal, research instruments and a copy of the consent form to the UTPA IRB office, approval was granted through expedited review (IRB# 2014-011-02NA). In order to reduce potential coercion effects, students were informed that their participation was strictly voluntary,

that their refusal to participate would not negatively impact their course grade, and they (and their instructors) would be made aware of any other existing opportunities for research participation on campus. During the informed consent process, students were also informed (both verbally and in writing) that they could withdraw from the study at any time without penalty. Students were informed during the recruitment process that potential participants under 18 years of age would be excluded from participation.

Procedures. A statistical power analysis utilizing Cohen's (1992) *d* formula was conducted to calculate necessary sample size. Based on Schimel's et al. study (1999), an effect size of d = .46 was estimated. Using a two-tailed test at *p* < .05 with a power of .80, the study will require roughly 64 participants per condition. In total, *N* = 136 students were recruited for this study. A meta-analytic review of TMT research using similar methodologies (Burke, Martens, & Faucher, 2010) indicated a mean sample size of 87.3 participants.

Candidates were recruited by arranging for agreeing UTPA instructors to announce the study in class and passing a sign-up sheet with designated dates, times, and locations. An alternative option for instructors was to provide the instructors with a flyer describing the study, the need for volunteers, and contact information for them to post on the respective course Blackboard shells. Students were scheduled to meet in the Department of Psychology's laboratory in in small groups of 6 – 8. On arriving at the designated time, students were introduced to the investigator and provided with the informed consent form. The consent form contained the UTPA IRB approval stamp, a brief depiction of the study, the nature and length of participation, a review of

confidentiality, any potential risks, and participants' right to withdraw. The informed

consent form is presented in Appendix A.

On review and endorsement of the informed consent, participants were informed

that the study was comprised of two-parts. Participants were ushered to a cubicle where

they were provided with a coded survey packet and instructed to not put any identifying

information on the forms. There were 4 different survey packets including combinations

of the MS prime versus pain control condition with the stereotype conforming versus

stereotype non-conforming peer depiction. Each survey packet included an introductory

statement depicting the means for completing the survey and instructing the participants

to return the materials to the envelope and return it to the investigator. The introduction

of the MS or pain salience manipulation (Appendix D) followed the request to

participants that they fill out brief filler questionnaires including the Rosenberg Self-

Esteem Scale (Rosenberg, 1965; Appendix B). The filler scales are the same used in the

original study by Rosenblatt et al. (1989) and are included to maintain the face validity of

the study to the participants and obscure the actual nature of the study. Administration of

the filler scales was followed by administration of the Gender Role Conflict Scale

(GRCS; Appendix C). The MS priming condition followed the method used by

Rosenblatt et al. (1989), in which participants were asked to respond in writing to 2

questions on reading the following statement: "Please briefly describe the emotions that

the thought of your own death arouses in you," and "Jot down, as specifically as you can

in at least three sentences, what you think will happen to you as you physically die and

once you are physically dead." The pain salience condition involved having the

participants respond to similar questions involving dental pain. Following this, delay and

distraction tasks (Appendix E) were given by having the participants complete a self-

report mood scale (Positive and Negative Affect Schedule—Expanded Form [PANAS–

X]; Watson & Clark, 1991) and a literary preference questionnaire prior to administration

of the Ambivalent Sexism Inventory (ASI, Appendix F). Prior research (e.g., Greenberg,

Pyszczynski, Solomon, Simon, & Breus, 1994) has demonstrated more robust MS effects

following a brief delay.

On completion of this packet, participants were instructed to return the packet to

the researcher; they then were given another packet for the second part of the study. This

packet included a brief instruction statement informing participants they would be asked

to read two brief biographies of hypothetical peers who are running for student

government president. One of the biographies depicted a gender stereotype confirming

peer, while the other included a depiction of a stereotype violating peer. Participants

were then asked to rate the peers on a 7-point Likert scale, from 1 = *not at all* to 7 = *very*

much in terms of favorability, social desirability, likelihood of voting for the peer, and

anticipated success if elected. The biographies and opinion survey are included in

Appendix G. This method follows the procedure established by Bettencourt, Dill,

Greathouse, Charlton, and Mulholland (1997) that established internal validity for male

and female gender stereotypic and gender atypical stereotypes ($F(1, 17) = 33.59$, $p <$

.001.). The method piloted by these authors was also used in the Schimel, et al. (1999)

study and the results appear to show reliability for this methodology. The brief

demographic form (Appendix H) was included at the end. Following completion of this,

students returned the closed packet to the researcher and were informed that the study had

been completed.

Instrumentation

Demographics

A demographic questionnaire included at the end of the survey packet gathered

basic information regarding the participant's age, education level, ethnicity, predominant

language, religiosity, SES, and relationship status. A copy of the demographic

questionnaire is included in Appendix H.

Gender-Role Conflict Scale (GRCS)

The GRCS is a 37-item self-report instrument that is considered to be a measure

of four distinct patterns of conflict that men may frequently encounter with the masculine

gender role (O'Neil, Helms, Gable, et al., 1986). The GRCS has been utilized in over

230 empirical investigations since its creation in 1982 (O'Neil, 2008) and has been

utilized with a diverse group of male participants; the content of this scale appears to be

related to men's psychological and interpersonal problems. Respondents indicate their

disagreement or agreement with items using a 6-point Likert scale ranging from "*strongly

agree*" to "*strongly disagree*". Each GRCS item assesses 1 of 4 identified patterns of

gender role conflict, with higher scores indicating greater expression of gender role

conflict. Sixty-two percent of the GRCS items assess personal experiences of GRC,

while 18 of the items measure gender role restrictions, and 5 assess gender role

devaluations and violations. Also, 78% of the GRCS items contain content related to

various interpersonal contexts, and only 1 item assesses GRC that is expressed towards

others. The GRCS also appears to possess a mix of item content across behavioral, affective, and cognitive domains (20 behavioral, 15 affective, and 11 cognitive). All items use a first-person address, are worded to imply rather than directly state conflicts with one's gender role, and are thought to tap levels of distress or anxiety associated with these conflicts.

In terms of the psychometric properties, to date there have been 22 separate factor analyses completed on the GRCS which demonstrate that the scale possesses construct validity, with moderate factor inter-correlations in the range of .35 to .68 (Moradi et al., 2000). These findings appear to imply that the 4 GRCS factors are related to one another, but are still separate entities. Several studies have established validity for the GRCS (Campbell & Snow, 1992; Good & Mintz, 1990; Kaplan, 1992; Sinn, 1993). Internal consistency scores have indicated Cronbach alpha's with a low of .75 for the conflict with work and family relations scale to a high of .85 for the success, power, and competition scale (O'Neil et al., 1986). A seemingly unique feature of the GRCS is its implicit use of the appraisal model of stress (Lazarus & Folkman, 1984) and the establishment of construct validity in relation to known indicators of psychological well-being. Convergent validity of the GRCS has been studied using various established measures of masculinity, with the GRCS have indicated median correlations ranging between .32 and .49 (Good et al., 1995). The findings appear to indicate that the GRCS is related to established measures of masculinity, but the relatively low to moderate correlations imply that the GRCS measures a different construct. Studies examining the

divergent validity of the GRCS have found the GRCS significantly correlated with homophobia (Kassing, Beesley, & Frey, 2005). The GRCS is included in Appendix C.

The researcher obtained a copy of the GRCS through contact with the instrument's author. Permission for using the instrument in this study was granted by Dr. James O'Neil on completion of a release form and with the stipulation that results of the study be communicated to the test author. A copy of the e-mail communication between Dr. O'Neil and the researcher is included in Appendix D.

One criticism of the GRCS has been its relatively narrow range of consideration of various types of gender role conflict; it does not necessarily take into account non-traditional standards of masculinity (men participating more in domestic and caregiving duties and increasingly egalitarian marriages; O'Neil, 2008). An early criticism of the GRCS was a relative lack of data using the instrument with diverse male groups of different race, ethnicity, age, sexual orientation, profession, and health status. However, since early 2000, the GRCS has been used in research with diverse groups of males, both in the United States and abroad, with these studies indicating similar factor structures (O'Neil, 2008).

Ambivalent Sexism Inventory (ASI)

The Ambivalent Sexism Inventory (ASI; Fiske & Glick, 1995) is a theoretically derived measure of sexism which consists of 22 items that require takers to respond to statements that reflect either positive or hostile attitudes towards women; responses range from *strongly agree* to *strongly disagree* on a 7-point Likert scale. The ASI measures both hostile (Hostile Sexism Scale; Cronbach's alpha = .90) and benevolent (Benevolent

Sexism Scale; Cronbach's alpha = .60) forms of sexism, and produces an overall score

which is thought to reflect ambivalent attitudes towards women. The scores combined

produce an overall score that is thought to reflect ambivalent attitudes (high on both the

benevolent and hostile scales), nonsexist attitudes (low on both scales), and either hostile

or benevolent sexist attitudes towards women. Not only does the ASI assess features of

benevolent sexism, it also assesses attitudes toward women in general rather than

attitudes reflecting concerns about equal rights for women. However, the ASI has been

more widely used to make comparisons between male subjects who score as being either

nonsexist or ambivalent sexist. In general, findings indicate those male subjects who

scored high in ambivalent sexism exhibited greater tendencies to be either hostile or

patronizing to women, and shifted between these patterns far more frequently than the

hostile sexist or benevolent sexist subjects (Fiske & Glick, 1995). The vacillation in form

of sexism appears to be dependent on the context (e.g., a work environment that

proactively identifies what constitutes sexism and actively discourages sexist behaviors)

and characteristics of the woman they are interacting with (e.g., attractiveness, power

status; Fiske & Glick, 1995). The discriminant, convergent, and predictive validity of the

ASI have been established from the series of studies utilizing the ASI (Glick & Fiske,

1996). The ASI is presented in Appendix F.

The researcher obtained a copy of the ASI through contact with the instrument's

author. Permission for using the instrument in this study was granted by Dr. Peter Glick

with the stipulation that results of the study be communicated to the test author. A copy

of the e-mail communication between Dr. Glick and the researcher is included in

Appendix I.

The ASI is not without its detractors. Petrocelli (2002), citing a study using the

ASI on female and male subjects from 19 different countries (Glick & Fiske, 2001),

pointed out that men from 6 of the countries rarely endorsed any hostile sexism items,

and those that were endorsed only to a slight degree, while subjects from 5 of the

countries endorsed benevolent sexism above a slight degree. Petrocelli also pointed out

that the published results did not include measures of variance for both the hostile and

benevolent sexism scales for the various countries in the study. Lastly, Petrocelli argued

that if the concept of ambivalent sexism derives from significant dissonance between the

two, then the relatively low scores on both the benevolent and hostile scales should not

reflect enough dissonance to produce the ambivalence.

Analysis

This study made use of an experimental research design using principally a

multivariate analysis of variance. The instruments used in the study contain data that are

represented on either an interval or ratio scale of measurement. The research questions

and the hypotheses reflected this type of analyses. The research questions and

hypotheses are once again listed again for review. The independent variables for the

study are the presentation of a MS versus a control pain salience (PS) condition and the

presentation of a gender stereotypical or gender nonconforming peer, while the dependent

variables consistent of participant's scores on the ASI and their ratings of a hypothetical

peer who either conforms or violates traditional gender stereotypes.

Participants' responses to the instruments used in this study, along with the demographic information, were inputted into the Statistical Package for Social Sciences (SPSS) version 19.0 for all data analysis. Frequencies and descriptive statistics were computed for the various demographic variables of interest. As the study involved the use of an independent variable with two levels, and two distinct dependent variables, a MANOVA was computed to examine the effect of MS presentation on ASI scores and participant's ratings of the hypothetical peer. GRCS scores were treated as a possible moderating variable and analyzed through the use of a MANCOVA procedure.

Research Questions and Hypotheses

The following research questions and hypotheses were developed following a review of the existing literature on TMT, research within the field of sexism, the construct of gender role conflicts, and contemplation of existing gaps in the literature.

Research Question 1. Does the presentation of a death reminder affect participants' responding on a measure of hostile and benevolent sexism (the ASI)?

$H_o{}^1$: There is no significant difference in participants' sexism scores (as measured by the ASI) between the death reminder and control conditions.

$H_a{}^1$: There is a significant difference in participants' sexism scores (as measured by the ASI) between the experimental and control groups, with the experimental condition participants endorsing higher levels of both hostile and benevolent sexism.

Research Question 2. Does the presentation of a death reminder impact participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles?

$H_o{}^2$*:* The presentation of a death reminder does not affect participants' rating of a hypothetical peer who either conforms to, or violates, stereotypical gender roles.

$H_a{}^{2:}$ The presentation of a death reminder does affect participants' ratings of hypothetical peers, with the experimental condition responding less favorably to a peer who violates stereotypical gender roles.

Research Questions 3. Do conflicts with one's gender role (as measured by O'Neil's (1981) Gender Role Conflict Scale, GRCS), moderate the impact of a death reminder on participants' responding on the sexism measure?

$H_0{}^3$: Gender role conflict scores, as measured by the GRCS, do not moderate the effect of a death reminder on participants' sexism scores on ASI.

$H_a{}^3$: Gender role conflict scores, as measured by the GRCS, do moderate the effect of a death reminder on participants' responding on the ASI.

Research Question 4. Do conflicts with one's gender role, as measured by the GRCS, moderate the impact of a death reminder on participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles?

$H_o{}^4$: Conflicts with one's gender role, as measured by the GRCS, do not moderate the effect of a death reminder on participants' ratings of a hypothetical peer who either conforms to, or violates, stereotypical gender roles.

$H_a{}^4$: Conflicts with one's gender role, as measured by the GRCS, do moderate the effect of a death reminder on participants' ratings of a hypothetical peer, with higher gender role conflict scores being inversely correlated with less favorable ratings of stereotype violating peers.

Ethical Considerations

Given the variables of interest in this study and their potentially sensitive nature, procedures and instruments were carefully reviewed for potential deleterious effects on the participants. The process of informed consent included the distribution of the consent form to all potential participants with ample time allotted to review the form and to pose questions if they had concerns. The consent form (included in Appendix B) provides a brief description of the nature of the participation, addresses issues concerning privacy and confidentiality, and highlights the voluntary nature of the participant's involvement. The consent form also includes a statement detailing the potential risks and benefits of participation, along with contact information of the researcher if they have questions following participation.

All participant survey packets, whether completed fully or not, will be kept confidential in the researcher's possession. The survey packets will be kept in a locked cabinet in the researcher's office for a minimum of 5 years. Data will be kept on an encrypted computer in the same office for 5 years as well. Participants were notified via the consent form and verbally prior to agreeing to participate that they may withdraw from the study at any time without academic risk. Participants who chose to withdraw were not be individually identified, and their withdrawal was not communicated to their instructors. There were no physical risks or benefits associated with participation in the study. A slight risk for potential emotional distress was possible as participants were asked to reflect on their own mortality. Informed consent was considered to be rendered on each participant's reading and signing of the informed consent form.

As the study involved a two-part process, it was necessary to code the survey packets on the envelope in order to ensure a relatively equal distribution among the various conditions. The coding was in no way linked to a participant's responses with personally identifying information nor did the coding contain information that could impact the random administration of the different survey packets.

Summary

Research testing the hypotheses of TMT over the past 2 decades has provided considerable evidence that reminders of one's own mortality significantly impacts participant's attitudes towards those who hold differing cultural worldviews. The research also suggests that death reminders impact participant's willingness to engage in hostile acts towards out-groups (for a review, see Burke, Martens, & Faucher, 2010). However, research examining the impact of various gender-related variables has been very limited. The research hypotheses proposed in this study tested whether the presentation of a MS prime would increase endorsement of sexist attitudes in male participants and lead them to be more critical and rejecting of a hypothetical peer who displays gender-atypical behaviors. The study also explored whether conflicts with the male gender role may moderate these effects.

Convenience sampling was used to recruit volunteer male participants from a local university. Participants were recruited from faculty taught classes and were informed that participation was solely voluntary and that no personal identifying information was to be collected. On consent to participate, volunteers were randomly given a questionnaire packet that included the independent variable of the MS versus pain

salience conditions. The packets also contained the ASI, GRCS, several filler items to maintain the face validity of the study, a brief biography of a hypothetical peer who either adheres to traditional gender stereotypes or is non-gender stereotypical, a Likert-rating scale to assess their attitudes towards the peer, and a demographic questionnaire.   After collection, data was entered into a statistical software packaged and analyzed using a MANOVA procedure. Chapter 4 provides information about the participant demographics, the results of the data analysis, and whether hypotheses were accepted or rejected.

Chapter 4: Results

Introduction

The purpose of this study was to examine how the presentation of a MS affects

participants' ratings of hypothetical peers who either adhere to or violate traditional

gender stereotypes. The study examined whether presentation of a MS affects

participants' scores on a measure of ambivalent sexism. Masculine gender role conflict –

as a moderating variable – was also examined.

TMT proposes that mortality fears lie at the root of the majority of emotionally-

motivated behaviors in which humans engage. Part of these emotionally-motivated

behaviors involve engaging in actions that enhance self-esteem through culturally

sanctioned ideals and values or through the maintenance of one's cultural worldviews.

Since its conception nearly 3 decades ago, research on the tenets of TMT have provided

evidence that death reminders impact not only an individual's attitudes towards others,

but may also contribute to aggression towards those holding diverse beliefs (Pyszczynski,

Greenberg, & Koole, 2004; Solomon, Greenberg, & Pyszczynski, 2004). While these

studies support the various hypotheses derived from TMT (Burke, Martens, & Faucher,

2010), there is relatively little empirical evidence on the practical application of these

findings for positive social change.

In a review of the available literature, few studies explored gender-related

variables associated with terror management and worldview defense. While one peer-

reviewed study (Schimel et al., 1999) was found that examined the impact of a MS on

gender stereotyping, it did not examine gender-related variables apart from obtaining data

about preferences for gender stereotype conformity or non-conformity. The aim of the

current research was to shed light on the impact of death reminders (through a MS

model) on adults' adherence to sexist beliefs and their opinions of those who present with

gender-atypical characteristics. Also, the research aimed to examine how these

anticipated effects are moderated by conflicts with the masculine gender role. It was

anticipated that the findings would shed light on how mortality fears may contribute to

negative stereotyping and discrimination based on sex and gender. It was also hoped that

the findings might also contribute to (a) enhancing the efficacy of conflict resolution

between diverse groups, and (b) understanding intergroup conflicts based on the need for

worldview defense (Greenberg & Kosloff, 2008; Niesta, Fritsche, & Jonas, 2008). In this

chapter, the 4 research hypotheses are reviewed, the data collection and analysis methods

best suited for testing the hypotheses are described, and the findings from the statistical

analyses are presented..

Hypotheses

The intent of this study was to examine the impact of the presentation of a death

reminder on participants' self-rated levels of ambivalent sexism and to examine the

influence on attitudes towards gender atypical peers. In addition, gender role conflict

was explored as a possible moderating variable influencing the strength of the influence.

The test hypotheses posited that a MS would influence participants' levels of ambivalent

sexism as measured by higher scores on the ASI (Fiske & Glick, 1995) and that the MS

presentation would decrease favorable ratings of a brief biography of a gender-atypical

peer. In addition, gender role conflict was explored as a possible moderating variable,

one that would influence the strength of the anticipated effect of the MS. This test

hypothesis posited that gender role conflict, as measured by the GRCS (O'Neil, 1981),

moderates the impact of a death reminder on participants' ambivalent sexism scores; the

higher GRCS scores are associated with higher levels of ambivalent sexism on the ASI.

Another test hypothesis implied that higher GRCS scores would be associated with less

favorable rating of a peer who violated a gender stereotype.

Data Analysis Procedure

Raw survey data was entered into the Statistical Package for the Social Sciences

(SPSS) version 21 by the researcher. This product was used to calculate the following

scores: the GRCS total score; the ASI Hostile Sexism score; the ASI Benevolent Sexism

score, and the ASI total score. SPSS was also used to generate frequencies and

descriptive statistics regarding the collected demographic data. In addition, the software

was used to run inferential statistics (MANOVA, MANCOVA) in order to test the

hypotheses and assist in interpreting the findings.

Demographics

Participants were recruited from undergraduate courses taught by faculty at the U

TPA. Faculty members within the College of Social and Behavioral Sciences and the

College of Health Sciences and Human Services were contacted by e-mail and asked to

announce the study in their classes and to post a flyer (Appendix J) describing the study,

dates and times for data collection, and directing students to the location. Participants

ranged in age from 18 years to 47 years with an overall mean age of 24.68. Table 1

presents detailed information regarding participant age by condition.

Table 1

Descriptive Statistics for Age by Group

Variable	*N*	Range	Minimum	Maximum	Mean	Std. Dev.
Pain Salience	68	29	18	47	24.00	6.845
MS	68	18	19	37	25.37	5.222

Participants included male ($N = 136$) students of a predominant Hispanic ethnicity (86.8%) that is representative of the total student body demographics at this university. While 160 participants were originally targeted for participation in this study, recruitment attendance was poor due to difficulties securing a diversity of time slots in the space provided. However, the total *N* was still sufficient based on the sample size analysis discussed in Chapter 3. Roughly 60% of the participants indicated that English was their first language, while only 21.3% indicated that English was their best language. Review of the frequencies also indicated that 88.2% of the participants indicated they were born in the U.S. and 11.8% indicated they were born in Mexico. Table 2 provides detailed information regarding descriptive information of the various demographic variables collected for this dissertation.

Table 2

Frequency Statistics for Categorical Demographic Variables

Variable	Count	Percent
Ethnicity		
Hispanic	118	86.8
White/Non-Hispanic	12	8.8
African American	3	2.2
Other	3	3.3
SES		
Much worse off	2	1.5
Somewhat worse off	39	28.7
About the same	65	47.8
Better off	26	19.1
Much better off	4	2.9
Education Level		
Freshman	3	2.2
Sophomore	14	10.3
Junior	57	41.9
Senior	54	39.7
Post-Bachelors	8	5.9
Relationship Status		
Single	80	58.8
Cohabiting	20	14.7
Married	22	16.2
Divorced	3	2.2
Other	11	8.1
US Born		
Yes	120	88.2
No	16	11.8
Religion		
Catholic/Christian/Protestant	103	75.7
Agnostic	32	23.5
Hindu	1	0.7

Research Hypothesis Findings

A MANOVA was performed to determine the effects of the MS versus pain salience condition and the effect of the gender stereotypical biography versus gender atypical biography on the two dependent variables, the ASI total score and the Opinion

Total score. The results indicated a significant multivariate effect for the ASI and opinion scores in relation to the MS condition and gendered biography combined, with a Pillai's Trace = .089, F (3,130) = 4.232, p = .007. The results of Levene's Test of Equality indicated the null hypothesis failed to be rejected (ASI Total F (3, 132) = .680; Opinion Total F (3, 132) = 1.824), thus the assumption of the error variance of the dependent variables was equal across groups was confirmed. The multivariate η^2 indicated that the interaction between the independent variables accounted for roughly 9% of the variance in ASI scores and Opinion totals, which was not a particularly large effect size. Review of the analysis indicated a significant effect of the MS on ASI scores, with F = 15.322, $p < .001$. Only two cases were indicated to be outliers and given the sample size and the relatively small deviance, the data was kept for the analysis. The first null hypothesis was rejected; it can be concluded that the presentation of a death reminder significantly increased participants' endorsement of ambivalent sexist beliefs in this sample. Figure 1 provides a graphic representation of mean ASI scores by experimental condition.
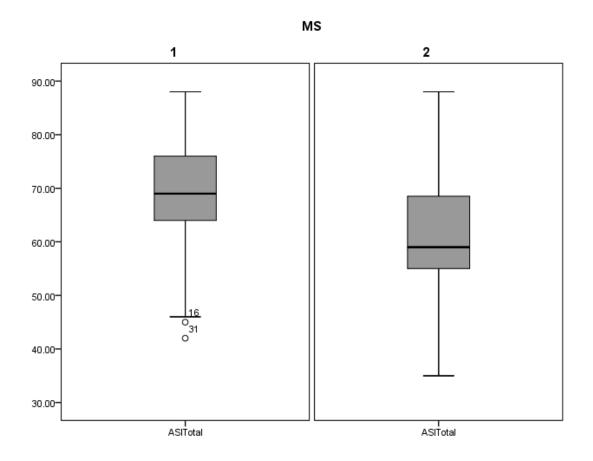
Figure 1. Boxplot of mean ASI scores by experimental condition (1 = MS; 2 = Pain Salience).

The between-subjects tests also indicated a significant effect of the MS on Opinion total score, with an $F = 13.459$, $p < .001$. Thus, the second null hypothesis was also rejected; it can be concluded that the presentation of a death reminder decreased participants' favorable ratings of a hypothetical peer who violates traditional gender stereotypes in this sample. Roughly 10% of the variance in ASI and Opinion total scores were accounted for by the MS presentation. Table 3 presents the means and standard deviations for the dependent variables for the two experimental conditions.

Table 3

Opinion and ASI scores by Experimental Condition

	MS	Gender	Mean	Std. Deviation	N
OpinTotal	MS	Gender Stereotypical	23.2647	4.33666	34
		Gender Atypical	15.3235	5.10923	34
		Total	19.2941	6.17423	68
	Pain Salience	Gender Stereotypical	23.8182	4.27533	33
		Gender Atypical	21.0286	5.93338	35
		Total	22.3824	5.34491	68
	Total	Gender Stereotypical	23.5373	4.28291	67
		Gender Atypical	18.2174	6.20690	69
		Total	20.8382	5.95815	136
ASITotal	MS	Gender Stereotypical	67.0000	10.54284	34
		Gender Atypical	70.2353	11.78355	34
		Total	68.6176	11.21570	68
	Pain Salience	Gender Stereotypical	61.8182	11.79633	33
		Gender Atypical	59.4857	13.14483	35
		Total	60.6176	12.47090	68
	Total	Gender Stereotypical	64.4478	11.39548	67
		Gender Atypical	64.7826	13.53087	69
		Total	64.6176	12.47935	136

As it was also hypothesized that conflicts with the masculine gender role might have a moderating influence on the impact of a MS on ASI and Opinion scores, a MANCOVA was performed independent of the previous analysis. Box's Test of Equality of Covariance tested the null hypothesis that the covariances matrices for the dependent variable are equal across groups. The analysis produced a Box's $M = 15.499$, which was non-significant; the assumption necessary for the MANCOVA was met. The results also indicated a significant multivariate effect between independent variables,

with a Pillai's Trace F (2,130) = 3.378, p = .037. However, this was less robust than the

multivariate effect when not applying the covariate, suggesting that GRCS total scores

likely increased some of the error variance among dependent variables. Examination of

the influence of the GRCS total score indicated a significant interaction with MS upon

ASI total score (F = 6.894, p < .001), with roughly 5% of the variance in the obtained

ASI total scores accounted for the influence of gender role conflict. The null hypothesis

for the third hypothesis was rejected; it is concluded that masculine gender role conflict,

as measured by GRCS total score, increased the impact of a MS upon self-reported

ambivalent sexist beliefs. Pairwise comparisons indicated that MS produced a stronger

effect upon ASI scores than upon Opinion total scores. Table 4 includes the estimated

marginal means for the dependent variables by independent variables.

Table 4

Estimated Marginal Means for MS

Dependent Variable	MS	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Opin Total	MS	19.508	.630	18.260	20.755
	Pain Salience	22.248	.631	21.001	23.496
ASI Total	MS	67.210	1.353	64.533	69.888
	Pain Salience	62.014	1.354	59.337	64.692

The last hypothesis tested the influence of gender role conflict on participants'

ratings of a peer who displayed gender stereotypical or gender atypical characteristics.

The results also indicated a significant interaction, with an F = 10.771, p = .001, with

roughly 8% of the variance being attributable to the influence of GRCS scores. However,

review of the analysis indicated that the effect of the presentation of the gender

stereotypical versus gender atypical biography produced a more pronounced effect ($F =$

39.74) and accounted for roughly 23% of the variance in scores. While the data suggests

the fourth null hypothesis could also be rejected, the findings are difficult to interpret due

to the large effect of the gendered biography that likely contributed significantly to the

observed differences between mean scores.

Summary

The purpose of this study was to examine the effect of presentation of a death

reminder on male participants' propensity for sexist beliefs and attitudes towards those

with atypical gender stereotypes.   Participants were randomly assigned a questionnaire

packet that included the independent variables of the MS versus pain salience condition,

the gender stereotype biography versus gender atypical biography, and the other variables

of interest including the ASI, Opinion rating scale, GRCS, various filler instruments to

maintain the face validity of the study, and the demographic questionnaire. Participants'

responses on the various survey instruments was entered into a statistical software

package and analyzed using both a MANOVA and MANCOVA procedure. Results of

the analysis provided support for the first 3 test hypotheses, while data about the fourth

research hypothesis proved to be inconclusive. The findings indicated that an

experimentally induced MS significantly increased participant's endorsement of

ambivalent sexist beliefs compared to participant's who were presented with a pain

salience prime. It was also found that the presentation of a MS significantly decreased

participants' favorable ratings of a hypothetical peer who violated traditional gender stereotypes.

Another focus of the study was to examine the relative influence of masculine gender role conflict as a moderating variable for the anticipated effect of the MS. Two test hypotheses were generated for this line of inquiry: that higher masculine gender role conflict levels will be associated with higher ambivalent sexism scores; and that higher masculine gender role conflicts will be associated with less favorable ratings of gender atypical peers. The findings supported the first of these hypotheses, with higher gender role conflict contributing to higher ambivalent sexism scores. While the obtained data appeared to also support the latter test hypothesis, these findings appear to be confounded by the effect of the gendered biography and no firm conclusions could be drawn from the results. In hindsight, interpretation of the findings from the last test hypothesis would have been facilitated if the survey packet only contained a brief biography of a hypothetical, gender atypical peer.

The concluding chapter will include an interpretation of the results of this study and summarize the limitations to these findings. Chapter 5 will also include a discussion of recommendations for further research in TMT in light of the findings and continued gaps in the literature. Finally, the chapter will conclude with a discussion of the utilization of these findings including the implications for social change and informed recommendations for psychological practice.

CHAPTER 5: RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Mortality-related fears have tended to run high for the majority of individuals in the United States over the past 2 decades (Pyszczynski, Greenberg, Koole, & Solomon, 2010). In large part, these fears have been elevated due to media coverage of the 2001 and subsequent global terrorist attacks, frequent large-scale natural disasters on a global level, a spate of mass killings, fears of epidemics, fears of the consequences of climate change, and rampant warfare and strife associated with ethnic and religious intolerance in many parts of the world. Despite a wealth of research pioneered in the 1980s (Burke, Martens, & Faucher, 2010; Greenberg, Pyszczynski, & Solomon, 1986; Pyszczynski et al. 2004), research that has consistently supported the tenets of TMT and have indicated that mortality reminders significantly impact individuals at the attitudinal and behavioral levels, the trend in society has been to ignore, dismiss, or distract oneself from the thoughts and reactions elicited by existential fear (Kastenbaum, 2011). It is perhaps ironic that media coverage of various global atrocities and calamities, aimed at educating the populace in order to inform our ability to protect ourselves and loved ones, serves to increase cultural worldview defense and heighten intolerance of those with opposing views (Greenberg & Kosloff, 2008). While many of the prominent educational and professional systems in our society (medicine, theology, psychology) began incorporating educational experiences related to the death system (the function of death and dying in the preservation of social order) in the mid-1960s, the majority of these institutions failed

to train prospective practitioners in the helping professions in addressing their own reactions to mortality fears (Kastenbaum, 2011).

The purpose of this study was to examine the impact of death reminders on endorsement of ambivalent sexist attitudes and also to investigate the impact of a MS on participants' attitudes towards peers who adhere to stereotypical and nonstereotypical gender norms. Masculine gender-role conflict was also explored as a possible moderating variable on the impact of a MS. It was hypothesized that the presentation of a MS would increase self-reported ambivalent sexism scores (relative to the pain salience control condition) and that a MS would decrease favorable ratings of peers who represented atypical gender-role characteristics. The findings indicated a significant multivariate effect for MS and gender role conflict. Also, the participants in the MS condition endorsed a significantly higher level of ambivalent sexism. This chapter includes an interpretation of the findings as well as the study's implications for clinical practice, further research, and social change.

Interpretation of Findings

The research hypotheses for this study postulated that the presentation of a MS would influence participants' ambivalent sexism ratings and influence their ratings of a peer who violated traditional gender stereotypes. It was also hypothesized that masculine gender role conflicts would moderate the influence of the MS presentation. The quantitative design driven by the research questions and hypotheses are consistent with the methodologies used in previous research into TMT. However, this study utilized

gender-related variables (gender role conflict and ambivalent sexism) that have been

lacking in previous TMT research.

Consistent with the existing TMT research evidence, the results from the data

analysis supported the central tenets of TMT that posit that the enhancement of self-

esteem through the valuing and endorsement of cherished cultural constructs over other

points of view (worldview defense) serves the function of decreasing fears associated

with one's mortality (Pyszczynski et al., 2004; Solomon, Greenberg, & Pyszczynski,

2004). For this study, worldview defense was assumed to be able to be assessed by the

degree to which participants endorsed sexist beliefs and reported less favorable views of

a peer who represented a violation of traditional gender stereotypes. A MANOVA was

utilized to test the first two hypotheses by examining if there were statistically significant

differences in the means of the participants' worldview defense (ASI and Opinion

scores), dependent on whether the participant was presented with a MS prime or the

control condition of a pain salience prime. As predicted, the results indicated the MS

significantly increased participants' scores on the ambivalent sexism measure ($F =$

15.322, $p < .001$, $\eta^2 = .104$), and the MS significantly reduced favorable ratings of a peer

who represented non-stereotypical gender characteristics ($F = 13.459$, $p < .001$, $\eta^2 =$

.093).

A MANCOVA was utilized to test the second set of hypotheses concerning the

potential moderating effect of level of masculine gender role conflict on participants'

ambivalent sexism scores and their ratings of a gender atypical peer. As predicted,

masculine gender role conflict did interact significantly with the MS condition to increase

ambivalent sexism scores ($F = 6.894$, $p < .001$). This supports previous research into

TMT that has indicated that many cognitive constructs associated with one's culture are

influenced by existential threats. Interpretation of the test of the last hypothesis regarding

the influence of gender role conflict on favorable ratings of a gender atypical peer was

confounded by large effect size produced by the presentation alone of the gendered

biography on peer ratings. The presentation of the biography alone produced a

pronounced effect ($F = 39.74$) and accounted for roughly 23% of the variance in scores.

As this effect size was not seen in the MANOVA analysis, it was concluded that the

influence of the gender role conflict variable on the MS and gendered biography

interaction was rather significant. However, the study would need to be replicated

leaving out the independent variable of gendered biography in order to make clearer

assumptions regarding the results.

Limitations

Several limitations of this study restrict the ability to draw conclusions from the

findings. As the study involved the sole use of male participants, the findings regarding

the observed MS effects cannot be applied to females. The preponderance of participants

in this study (86.8%) self-identified as being of Hispanic ethnicity, a fact that reduces the

capacity to generalize the findings to diverse groups. Also, as the participants were

drawn from a university population with a somewhat restricted age range, this also

reduces the generalizability of the results to a wider population with diverse educational

experiences. While the implanted research MS methodology has been well-established in

the research literature, the findings should also be construed with an understanding of the

limitations of the design in terms of applications in non-research settings.

Implications for Social Change

Based on the TMT viewpoint, intolerance and prejudice directed towards those who do not adhere to the norms associated with one's societal values reflects a position of worldview defense aimed at enhancing one's own self-esteem and mitigating existential anxiety. Considerable research evidence suggests that priming mortality-related cognitions increases intolerance of those who hold opposing viewpoints or those who do not appear to fit within the standards of the mainstream (Jost, Glaser, Kruglanski, & Sulloway, 2003; Schimel et al., 1999; Simon et al., 1997). Problems with intolerance towards those who are perceived as different from the status quo continues to be a significant problem in the United States and many other nations (Shafer & Shaw, 2009). With the current economic climate, controversies regarding immigration reform, high rates of mass shootings, and global strife and warfare, the consequences of intolerance on a global level are significant and at times devastating. The current research implies that the intolerance associated with mortality fears extends to the area of perceived adherence to gender stereotypes and research has indicated that mere exposure to benevolent forms of sexism and complimentary gender stereotypes increases the level of social justification for gender status quo for women (Jost & Kay, 2005). The priming of mortality has been demonstrated to increase conservatism and right-wing authoritarianism that increases the speed with which individual's make judgments regarding sexual orientation based on pictures of faces alone (Stern, West, Jost, & Rule, 2013). The development and systematic implementation of programs or interventions that tend to reduce worldview

defense in the face of perceived threats may go a long way to reducing out-group bias,

prejudice based on gender stereotypes, and decrease the deleterious influence associated

with discrimination. Since Harmon-Jones et al. (1997) found that the enhancement of

self-esteem reduces worldview defense in the face of mortality concerns, implemented

programs that boost realistic levels of both explicit and implicit self-esteem may be

useful. For example, Nicholls and Stukas (2011) found that reducing participant's

tendencies to make social comparisons enhanced level of implicit self-esteem and

Greenwald and Farnham (2000) found that increased use of non-verbal positive behaviors

in the context of interpersonal relationships enhances self-esteem and increases strivings

for reducing conflicts. Implementation of programs fostering these behaviors into school

curricula, organizational training programs, and other venues may prove highly beneficial

Recommendations for Further Study

The results from this study furnish further evidence supporting the central tenets

of TMT. However, more research is needed in the area of gender-related variables. If

the cognitive and affective mechanisms that underlie worldview defense in the face of

mortality operate largely at a subconscious process, as supported by the TMT research,

then future research should explore more creative means at investigating these implicit

processes in the area of the social construct of gender (gender identity and gender role

development). As gender identity tends to fluctuate over the lifespan (Garnets & Pleck,

1979), cross-sectional research examining the impact of a MS on gender stereotyping

with participants of different age groups may have some utility. Also, Burke, Martens,

and Faucher's (2010) meta-analytic review of TMT research indicated that participants

have included individuals from diverse ethnic backgrounds and from several

nationalities. However, the majority of the studies have primarily included college

students as participants. More research is needed including participants from diverse

educational backgrounds and of varying age groups. An additional avenue worthy of

future exploration should include an examination of the interaction of MS effects with the

process of acculturation for various ethnic groups.

Another area of future research potential, as indicated by Kastenbarum (2011) and

a recent review of the existing literature, should address the relative lack of qualitative

research the area of TMT and existential anxiety in general. Qualitative studies in this

area may be useful to help shed some light on the affective processes that underlie

worldview defense in the face of mortality threat that has been difficult to ascertain with

purely quantitative methods of inquiry. Qualitative methods may aid in determining if

the primary motivator for the defense reactions are actually based on anxiety, sorrow at

the thought of loss, or actually a combination of affective factors. Mixed method

(combination of quantitative and qualitative methods) designs may have even greater

utility in answering these questions.

<div align="center">**Recommendations for Practice**</div>

Aside from the aforementioned continued research implications, TMT research

presents the potential for enhancing psychotherapy and counseling practice in a variety of

settings. The findings from this study contributes to the wealth of data indicating that

mortality related concerns contribute to worldview defense and leads to potential bias and

hostility towards those who represent opposing worldviews. As much of the defenses

people engage in when confronted with mortality appears to be the upholding of valued social constructs, enhancement of one's self-esteem through identification with cherished social concepts appears to serve as a buffer against MS (Harmon-Jones, Simon, Greenberg, Pyszczynski, Solomon, & McGregor, 1997). Therapeutic efforts aimed at enhancing client self-esteem at an implicit level could potentially aid in reducing the angst encountered in this population.

As the empirical evidence indicates that mortality concerns impact a wide variety of human attitudes and behaviors associated with out-group bias and hostility at both implicit and explicit levels (Burke, Martens, & Faucher, 2010), and the current research supports the hypothesis that mortality fears impact sexist attitudes, interventions aimed at reducing mortality concerns and fears should help reduce the potential negative impact of worldview defense. One modality of clinical intervention that has demonstrated efficacy in reducing death related anxiety (and depression in the elderly) is life review therapy (Scogin & McElreath, 1994; Korte, Bohlmeijer, Cappeliez, Smit, & Westerhof, 2012; Serrano et al. 2012). Following Erikson's theory about psychosocial stages of development and the importance of life histories (Erikson & Erikson, 1977), life review therapeutic approaches, as opposed to general reminiscence, personal narratives, or guided autobiography, are typically structured around one or two central life themes that have provided meaning (such as family) and range from childhood experiences throughout the aging process (Haber, 2006). A meta-analytic study of life review forms of clinical intervention studies between 1966 and 2005 (Bohlmeijer, Roemer, Cuijpers, & Smit, 2007) found that life review therapy, as opposed to general reminiscence or

cognitive-behavioral therapy, produced more pronounced improvement in symptoms of depression and general psychological well-being with at least a moderate to strong effect size across all studies included in the analysis. With the aging of the U. S. population, this would appear to be an important form of intervention for geropsychology and geropsychiatric nursing practice. However, as pointed out by Haber, there has been inadequate research attention (using quality, well-controlled studies) directed towards the qualitative process of integrating the life experiences of one's past to improve current mental health. Haber points out that many who practice this form of intervention are likely to be inadequately trained; he calls for the development of a certified training program to enhance the effectiveness of these interventions.

The findings from the study also support O'Neil's (2008) assertion that the GRCS should have significant clinical utility aside from its use as a research tool. Roughly three decades of research (O'Neil, 2008) has clearly indicated that masculine gender role conflicts are associated with a variety of phenomenon associated with poor health outcomes for males including: restrictive expression of emotion; resistance to seeking healthcare and mental health services; increased psychosocial stress; high rates of anger and hostility; poor interpersonal conflict resolution; and lowered self-esteem. Use of the GRCS in the initial stages of clinical work with men may help inform practitioners about potential problems in intersexual therapeutic alliances and provide clinicians with information on obstacles to the deepening of a male therapist, male client therapeutic alliances. The use of the GRCS could also be beneficial in identifying male clients who may be at risk for poor treatment compliance or premature withdrawal from treatment.

Conclusion

Derived from early existential psychological thought, TMT proposes that death-related anxiety is a uniquely human experience that underlies (often at a subconscious level) much social behavior and influences the development of beliefs and value systems. Since its origins in the mid-1980s, a substantial volume of research aimed at testing the primary hypotheses derived from this approach has found that implicit death reminders do affect individuals at the cognitive and behavioral levels (Burke, Martens, & Faucher, 2010). The strongest evidence from this body of literature appears to support the notion that the enhancement of self-esteem, through individual strivings to live up to the standards of value by their culture, serves the function of protecting against mortality fears by suppressing accessibility to death-related cognitions (Schmeichel et al., 2009). Part and parcel of this self-esteem enhancement is the protection of one's cultural worldview and the inclination to denigrate those who represent dissimilar or opposing cultural values.

Despite the abundance of quantitative TMT research, a review of the literature has indicated a relative lack of exploration of how gender-related variables might interact with worldview defense when individuals are confronted with mortality threat. As gender is held to be a socially constructed category (Maccoby, 1988), the focus of this dissertation was to examine the impact of a MS presentation on participants' ratings on a measure of ambivalent sexism and their opinion ratings of a hypothetical peer who either adhered to traditional gender stereotypes or represented a violation of gender norms. The

results of the data analysis supported the test hypotheses and indicated that the

presentation of a MS increased self-reported levels of ambivalent sexism and decreased

participants' favorable ratings of peers who violated traditional gender stereotypes. The

results of this study are consistent with previous findings in TMT research and imply that

mortality reminders elicit reactions that involve defense of one's worldview; in this case,

it was demonstrated that this extended to defenses involving increased ambivalent sexist

beliefs and decreased favorability of those who do not uphold standards for masculinity

and femininity compared to those who do. The analysis of the data also indicated that

conflicts with the masculine gender role moderated the influence of a MS, increasing

participants' self-rated ambivalent sexism.

The findings from this dissertation add to the existing literature supporting several

hypotheses derived from TMT research and also suggest areas for further inquiry.

Research utilizing methods that tap implicit associations related to mortality concerns and

gender-related variables may be useful in shedding light on the underlying cognitive and

affective processes involved in worldview defense. Combining quantitative research

using implicit measures associated with gender with a qualitative approach may also be

enlightening regarding these processes. A meta-analytic review of TMT research has

indicated that the majority of participants in TMT research have been college students

(Burke, Martens, & Faucher, 2010). As gender identity and death-related anxiety are

likely to fluctuate with chronological age throughout adulthood, more research in these

topics with varying age groups is needed to examine potential patterns of developmental

change. Also, following reflecting on a limitation of this study (a predominantly

Hispanic sample), a review of the empirical literature indicated a relative lack of exploration of the interaction between acculturative processes and MS effects. With the current high rates of immigration on a global level and concerns regarding immigration reform in the United States, research in this area is needed to highlight adjustment difficulties immigrants encounter with existential fears and to help alleviate tensions among diverse groups.

Implications for clinical practice are also indicated from the findings. As the data supports the notion that mortality concerns impact a variety of behaviors and cognitions, including endorsement of sexist beliefs, interventions that have demonstrated ability in reducing death-related anxiety (such as life review therapy) should be considered an integral part of the therapeutic process with the elderly and others whom encounter end of life issues. The study also appears to support the use of the GRCS as an important tool in clinical and counseling settings where intersexual and intrasexual alliances are formed. The findings from this study can prompt positive social change through increasing awareness of the futility of denying death related anxiety. Research in this area can promote social change within various educational institutions, with an emphasis on taking into account students' individual encounters with death related concerns and promoting open discourse on the thoughts and feelings elicited by mortality fears. Efforts devoted to the creation of systematized methods for reducing worldview defense in the face of perceived mortality threats have the potential for significantly reducing problems with out-group bias and hostility in a variety of settings including peace negotiations and mediations aimed at solving conflicts in the face of opposing cultural worldviews.

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Appendix A:

Informed Consent

Please read the following information thoroughly and speak with the researcher if you have questions or concerns before proceeding with the project.

Thank you for your intent to participate in this research examining the potential influence of various personality variables upon gender-related attitudes. The form you are presently reading represents an informed consent process, which is designed to help you understand the study prior to deciding whether to participate. The project has been developed and is being conducted by Gary Leka, a clinical psychology doctoral candidate at Walden University, as part of the requirements for completion of the his dissertation and degree completion.

Background Information: The purpose of this research is to examine whether different personality attributes are associated with inclinations to view traditional masculine or feminine traits in a positive or negative light.

Procedures: If you agree to participate in this two-part study, you will be asked to complete a questionnaire packet that assesses different personality attributes and attitudes regarding gender-related issues. The questionnaires will require you to read the instructions and respond to the items presented in an open manner. Upon completion of the initial questionnaire packet, you will be provided a second packet which contains a brief essay which you will be required to read and then respond to with your opinions regarding the essay. Completion of the procedures should require approximately 45 minutes of your time. Please note, it is important that you attempt to answer all the

questions, as only surveys in which all questions have been answered can be utilized.

Voluntary Nature of the Study: Student participation in this study is purely voluntary. Your decision to participate or decline will not influence your grade in the course or affect your standing at your university in any manner. If you decide to discontinue your participation in the study at any time, your choice to do so will not adversely affect your course grade.

Risks and Benefits of Being in the Study: While there are inherent risks or dangers associated with your participation in this study, some of the questionnaire items may cause slight, temporary discomfort to some individuals. It is anticipated that the results from this study will contribute to a better understanding of factors that influence gender attitudes.

Compensation: Extra-credit will be provided for your participation at the discretion of your instructor.

Confidentiality: No personally identifying information will be collected from any participant. Neither of the questionnaire packets will contain identifying information. The obtained data will be utilized for analysis of the research questions only and included in the preparation of a University dissertation. There will be no electronic transmission of data that would allow identification of any participant.

Contacts for Questions/Concerns: If any questions or concerns arise during or after your participation, you may contact the investigator, Gary Leka, at

gary.leka@waldenu.edu or at (956) 873-1996. If you would like to speak to someone

else regarding participant rights, you may call the Walden University Office of Research Integrity and Compliance at 1(800)925-3368.

Walden University Approval: Walden University's IRB approval number for this study is **02-05-14-0013390** and it expires on **February 4, 2015**.

University of Texas – Pan American Clearance: UTPA's clearance number for this study is **2014-011-02NA**.

Statement of Consent: Upon reading the previous information and you feel comfortable that you freely participate in this study, please begin by moving on to the next documents. No consent signature is requested in order to protect your privacy. By completing the questions and survey, you are consenting to your active participation in this study.

Appendix B:

Filler Scales Used to Maintain the Pretense of the Study

On the following pages you will find 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 and complete the questionnaires in the order that they appear in the packet. Your responses to these questions are completely anonymous and will be used for research purposes only.

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

For each of the following statements, please indicate whether you agree or disagree by writing the most applicable response in the space provided.

1 = strongly disagree   4 = slightly agree

2 = moderately disagree   5 = moderately agree

3 = slightly disagree   6 = strongly agree

1) _____ It upsets me to go into a situation without knowing what I can expect from it.

2) _____ I'm not bothered by things that interrupt my daily routine.

3) _____ I enjoy having a clear and structured mode of life.

4) _____ I like to have a place for everything and everything in its place.

5) _____ I enjoy being spontaneous.

6) _____ I find that a well-ordered life with regular hours makes my life tedious.

7) _____ I don't like situations that are uncertain.

8) _____ I hate to change my plans at the last minute.

9) _____ I hate to be with people who are unpredictable.

10) _____ I find that consistent routine enables me to enjoy life more.

11) _____ I enjoy the exhilaration of being in unpredictable situations.

12) _____ I become uncomfortable when the rules in a situation are not clear.

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA A D SD
2.	At times, I think I am no good at all.	SA A D SD
3.	I feel that I have a number of good qualities.	SA A D SD
4.	I am able to do things as well as most other people.	SA A D SD
5.	I feel I do not have much to be proud of.	SA A D SD
6.	I certainly feel useless at times.	SA A D SD
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA A D SD
8.	I wish I could have more respect for myself.	SA A D SD
9.	All in all, I am inclined to feel that I am a failure.	SA A D SD
10.	I take a positive attitude toward myself.	SA A D SD

Appendix C:

Gender Role Conflict Scale (O'Neil, Helms, Gable, et al., 1986)

Instructions: In the space to the left of each sentence below, write the number that most closely represents the degree that you Agree or Disagree with the statement. There is no right or wrong answer to each statement; your own reaction is what is asked for.

Strongly Agree					Strongly Disagree
6	5	4	3	2	1

1. _____ Moving up the career ladder is important to me.

2. _____ I have difficulty telling others I care about them.

3. _____ Verbally expressing my love to another man is difficult for me.

4. _____ I feel torn between my hectic work schedule and caring for my health.

5. _____ Making money is part of my idea of being a successful man.

6. _____ Strong emotions are difficult for me to understand.

7. _____ Affection with other men makes me tense.

8. _____ I sometimes define my personal value by my career success.

9. _____ Expressing feelings makes me feel open to attack by other people.

10. _____ Expressing my emotions to other men is risky.

11. _____ My career, job, or school affects the quality of my leisure or family life.

12. _____ I evaluate other people's value by their level of achievement and success.

13. _____Talking about my feelings during sexual relations is difficult for me.

14. _____ I worry about failing and how it affects my doing well as a man.

15. _____ I have difficulty expressing my emotional needs to my partner.

Strongly Agree					Strongly Disagree
6	5	4	3	2	1

16. _____ Men who touch other men make me uncomfortable.

17. _____ Finding time to relax is difficult for me.

18. _____ Doing well all the time is important to me.

19. _____ I have difficulty expressing my tender feelings.

20. _____ Hugging other men is difficult for me.

21. _____ I often feel that I need to be in charge of those around me.

22. _____ Telling others of my strong feelings is not part of my sexual behavior.

23. _____ Competing with others is the best way to succeed.

24. _____ Winning is a measure of my value and personal worth.

25. _____ I often have trouble finding words that describe how I am feeling.

26. _____ I am sometimes hesitant to show my affection to men because of how others might perceive me.

27. _____ My needs to work or study keep me from my family or leisure more than I would like.

28. _____ I strive to be more successful than others.

29. _____ I do not like to show my emotions to other people.

30. _____ Telling my partner my feelings about him/her during sex is difficult for me.

31. _____ My work or school often disrupts other parts of my life (home, family, health leisure.

32. _____I am often concerned about how others evaluate my performance at work or school.

Strongly Agree 6	5	4	3	2	Strongly Disagree 1

33. ____Being very personal with other men makes me feel uncomfortable.

34. ____Being smarter or physically stronger than other men is important to me.

35. ____ Men who are overly friendly to me make me wonder about their sexual preference (men or women).

36. ____ Overwork and stress caused by a need to achieve on the job or in school, affects/hurts my life.

37. ____ I like to feel superior to other people.

Appendix D:

Mortality Salience and Pain Salience Inductions (Rosenblatt, Greenberg, Solomon, Pyszczynski, and Lyon (1989)

On the following page there are a couple of open-ended questions. Please respond to them with your first, natural response.

We are just looking for people's gut-level reactions to these questions.

The Projective Life Attitudes Assessment

This assessment is a recently developed, innovative personality assessment. Recent research suggests that the feelings and attitudes about significant aspects of life tell us a considerable amount about the individual's personality. Your responses to this survey will be content analyzed in order to assess certain dimensions of your personality. Your honest responses to the following questions will be appreciated. Please attempt at least three sentences for each.

1. **PLEASE DESCRIBE THE EMOTIONS THAT THE THOUGHT OF YOUR OWN DEATH AROUSES IN YOU.**

_____

_____

_____

_____

_____

_____

_____

2. **WRITE DOWN AS SPECIFICALLY AS YOU CAN, WHAT YOU THINK WILL HAPPEN TO YOU PHYSICALLY WHEN YOU DIE.**

_____

_____

_____

_____

_____

_____

_____

_____

<u>The Projective Life Attitudes Assessment</u>

This assessment is a recently developed, innovative personality assessment. Recent research suggests that the feelings and attitudes about significant aspects of life tell us a considerable amount about the individual's personality. Your responses to this survey will be content analyzed in order to assess certain dimensions of your personality. Your honest responses to the following questions will be appreciated. Please attempt at least three sentences for each.

1. **PLEASE DESCRIBE THE EMOTIONS THAT THE THOUGHT OF BEING IN INTENSE PAIN AROUSES IN YOU.**

_____

_____

_____

_____

_____

_____

_____

2. **WRITE DOWN AS SPECIFICALLY AS YOU CAN, WHAT YOU THINK WILL HAPPEN TO YOU PHYSICALLY AS YOU ARE IN INTENSE PAIN.**

_____

_____

_____

_____

_____

_____

_____

Appendix E:

Positive and Negative Affect Schedule—Expanded Form
(PANAS-X; Watson & Clark, 1991)

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

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 off 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 solely 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   somewhat   very
descriptive   descriptive   descriptive

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

_____ male   _____ female

Appendix F:
Ambivalent Sexism Inventory (Fiske & Glick, 1995)

The statements on this page concern women, men, and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement by clicking on the numbered buttons below.

(1) No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(2) Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(3) In a disaster, women ought not necessarily to be rescued before men.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(4) Most women interpret innocent remarks or acts as being sexist.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(5) Women are too easily offended.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(6) People are often truly happy in life without being romantically involved with a member of the other sex.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(7) Feminists are not seeking for women to have more power than men.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(8) Many women have a quality of purity that few men possess.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(9) Women should be cherished and protected by men.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(10) Most women fail to appreciate fully all that men do for them.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(11) Women seek to gain power by getting control over men.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(12) Every man ought to have a woman whom he adores.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(13) Men are complete without women.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(14) Women exaggerate problems they have at work.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(15) Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(16) When women lose to men in a fair competition, they typically complain about being discriminated against.

Disagree strongly ○ 0 ○ 1 ○ 2 ◉ 3 ○ 4 ○ 5 Agree strongly

(17) A good woman should be set on a pedestal by her man.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(18) There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(19) Women, compared to men, tend to have a superior moral sensibility.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(20) Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(21) Feminists are making entirely reasonable demands of men.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

(22) Women, as compared to men, tend to have a more refined sense of culture and good taste.

Disagree strongly ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Agree strongly

Appendix G:

Gendered Biographies and Opinion Survey

The following is a short biographical sketch of a UTPA student body president candidate, that was requested from the Student Government Association in preparation for a speech by the candidate. Please read the bio and then answer the questions on the following page regarding your reaction to the biographical sketch:

Chris Ramos is a twenty-year-old junior and education major at UTPA who is running for study body president. She is the middle of three children, with her generation being the first to attend college. Her brother, three years her senior, graduated from UTPA one year ago, and her younger brother is sixteen and a sophomore in high school. Since her freshman year at UTPA, Chris has been an active member of Kappa Delta Chi, a sorority that focuses on serving the needs of the Latino/a community. Raised with only brothers, she found a sense of connection through the sisters in the sorority. As well, Chris enjoys the community service projects the sorority engages in. While most of her peers either live in apartments, on or off campus, Chris lives at home with her parents, which she plans to continue doing until she moves out of the area for graduate school. For the past year, she has been helping to take care of her maternal grandmother, who has Parkinson's disease, on weekends.

While in high school, Chris was junior and senior class vice-president and was voted homecoming queen her senior year. A member of the dance team and active in school theater productions, she originally majored in theater when she began college, but changed to education her sophomore year at the suggestion of her family to find a more financially lucrative career path. Her family strongly insisted she pursue a career as a teacher, as they believe this will help make her financially stable and they view teaching as an esteemed career for a woman. The idea of helping others, especially young children, appeals to her. Occasionally, Chris indulges her passion for the performing arts and participates in a university theatrical production.

Chris has been a student council representative as a sophomore and wants to take a more active lead in student government, leading to her decision to run for president.

The following is a short biographical sketch of a UTPA student body president candidate, that was requested from the Student Government Association in preparation for a speech by the candidate. Please read the bio and then answer the questions on the following page regarding your reaction to the biographical sketch:

Chris Ramos is a twenty-year-old junior mechanical engineering major at UTPA who is running for study body president. She is the middle of three children, with her generation being the first to attend college. Her brother, three years her senior, graduated from UTPA one year ago, and her younger brother is sixteen and a sophomore in high school. Chris is an active member of the STEM Club on campus and was a student council representative her freshman and sophomore years. Currently, Chris lives with three roommates in an apartment off-campus. She occasionally spends time with her younger brother on weekends and enjoys helping him work on an old car that was given to him by an Uncle.

While in high school, Chris was junior and senior class vice-president and was president of the Junior Engineering and Technical Society (the science club) her senior year. She also participated on the school soccer team for three years. Chris decided upon her current major because her career goal is to become a professor of engineering, and she is actively pursuing requisites to enter graduate school at a large university out of State. Her family is proud of her accomplishments, but are hoping she pursues a different career path that would not require her to move from the area. Chris moved out of her parents' home against their wishes, but enjoys the independence and finds living closer to campus more convenient. Chris desires to become more active in student government and build her leadership skills, leading to her decision to run for president.

Chris has been a student council representative as a sophomore and wants to take a more active lead in student government, leading to her decision to run for president. Occasionally, Chris indulges her passion for sports and outdoors activities by playing on a community softball team and camping with friends during the summer.

Opinion Survey

Think for a moment about the brief bio you just read on the Student President candidate and then answer the following questions by circling the number that best approximates your feelings.

How favorably do you view this candidate?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Not at all
Favorably

Extremely
Favorably

To what extent do you admire this student president candidate?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Not at all

Very Much

To what extent do you think this candidate will be successful if elected?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Not at all successful

Very Successful

If you were to vote in this Student Presidential election, how likely is it you would vote for this candidate?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Not at all

Very Much

Appendix H:

Demographic Questionnaire

DEMOGRAPHIC INFORMATION:

AGE: _____

Is English your **FIRST** language? 1. YES 2. NO
Is English your **BEST** language? 1. YES 2. NO
Where were you born? Country: _____ State/Province: _____

Which best describes your relationship status?

1. Single_____ 2. Cohabiting _____ 3. Married _____
4. Separated_____ 5. Divorced_____ Other (specify):_____

What **race** would best describe you?

1. Asian American_____ 2. African American _____ 3. Latino/Hispanic _____
4. West Indian_____ 5. White/non-Hispanic_____ 6. Other (specify):_____

Overall, how would you rate your family as being financially worse off or better off than other families?

1. Much worse off_____ 2. Somewhat worse off _____ 3. About the same _____
4. Better off_____ 5. Much better off_____

What **religion** best describes you?

1. _____

On a scale of 1 10 (1= not at all, 10= completely), how religious are you? _____

What year of college are you in?
1. Freshman   2. Sophomore
3. Junior   4. Senior   5. Other (specify): _____

What is your (approx.) GPA in college (or high school if you are a freshman) (0 – 4)?___

Appendix I:

Permission to Use GRCS and ASI

GARY LEKA
Sent: Thu 3/29/2012 1:25 PM
To: JIMONEIL1@aol.com

Greetings Dr. O'Neil,

I am requesting your permission to use the GRCS in a proposed dissertation study examining the impact of a mortality salience presentation upon sexist attitudes and attitudes towards gender stereotype conforming or gender stereotype nonconforming peers. I would like to use the GRCS as a potential moderating variable. I have reviewed the use of the GRCS in multiple studies, and you assisted me greatly with the use of the GRCS for a Masters' thesis exploring acculturation issues among Mexican-American men. I can provide more information regarding the nature/design of the study if you require it.

Thank you for your attention to this correspondence.

Respectfully,

Gary Leka
Walden University

JIMONEIL1@aol.com
Sent: Sat 3/31/2012 12:02 PM
To: Gary Leka

Dear Gary:

  Good to hear from you again after many years. Thanks for your interest again in using the GRCS with your research on mortality salience and other gender role variables. This study has not been completed before, so it could be unique and timely. I have attached the GRCS to this email. If you use it, please send back the release form. You may also want to go to the GRC Research web page where the previous 250 GRC studies are summarized in 24 informational file. The address is: http//web.uconn.edu/joneil.

   Also the recently published paper may be useful to you (See below). The best to you with your research.

                                        Jim O'Neil, Ph.D.
                                        Professor of Educational Psychology & Family Studies
                                        University of Connecticut

O'Neil, J.M. (2008). Summarizing twenty-five years of research on men's gender role conflict using the Gender Role Conflict Scale: New research paradigms and clinical implications. The Counseling Psychologist. 36, 358-445.

From: Gary Leka [mailto:leka@utpa.edu]
Sent: Wednesday, March 28, 2012 3:29 PM
To: Peter S. Glick
Subject: request to use ASI

Greetings Dr. Glick;

My name is Gary Leka and I am contacting you with a request to use your Ambivalent Sexism Inventory in a study I am proposing. I am currently working on a dissertation proposal examining the impact of a mortality salience presentation upon benevolent sexism and attitudes towards gender stereotype conforming or gender stereotype nonconforming peers. I have reviewed the use of the ASI in several studies since its creation, and would like to include the ASI as a dependent variable in my study. I will be forwarding an e-mail to Dr. Fiske as well with the same request. I can provide more information regarding the nature/design of the study if you require it.

Thank you for your attention to this correspondence.

Respectfully,

Gary Leka
Walden University

From:	Peter S. Glick <peter.s.glick@lawrence.edu>
To:	Gary Leka
Cc:	
Subject:	RE: request to use ASI

Hi Gary,

Sounds like a neat study! Yes, please feel free to use the ASI in your current and future research.

-Peter

Appendix J:

Study Flyer

Personality and Gender Attitudes Study

Participants are being sought for a survey study examining the potential influence of personality variables upon gender-related attitudes. I am seeking male participants, at least 18 years of age, to voluntarily participate in this study. The study will involve the reading of two brief passages and the completing of several survey instruments. The anticipated length of participation is 45 minutes.

My name is Gary Leka and I am doctoral candidate at Walden University. If you are interested in participating in this study, or have any questions related to participating, please contact me at 956-873-1996 or email me at gary.leka @waldenu.edu.

If you wish to participate, you can contact me for dates and times or show up at the designated room on the dates and times listed below:

<u>Dates and Times:</u>

TBA

Appendix K:

Curriculum Vitae

Gary Leka
(956) 665-2162 office
e-mail: leka@utpa.edu

Education

2008-current	Walden University – Clinical Psychology Ph.D. Program – 120-plus accumulated hours. Completed pre-doctoral internship with Counseling and Psychological Services at University of Texas – Pan American on 06/13/2013.
1995-1998	Master of Arts in Clinical Psychology - University. of Texas - Pan American. Included two practicum courses which involved providing individual and group therapy, assessment of needs, and psychological testing of university students and their families in the Graduate Clinical Psychology Clinic. Study also included a 480-hour internship, which was performed at Charter Palms Behavioral Health System in McAllen, Texas. Duties included completing psychosocial and chemical dependency assessments, co-facilitate psychotherapy groups and provide individual therapy.
1981-1984	Bachelor of Arts - Pan American University Major - Psychology; Minor - Philosophy

Relevant Employment

09/2003-Present	Lecturer – University of Texas – Pan American *Duties:* Instruct undergraduate course including Personality Theory, Developmental Psychology, Personality Theory & Abnormal Psychology. Created two Special Topics Courses on Death & Dying and Child Psychopathology. Academic advisement of undergraduate students.
02/2000-Present	Therapist – Pinkerman and Gonzalez Psychological Associates, PC *Duties*: Provide individual, couples, and family counseling to diverse population in a large outpatient practice. Performed over 1,000 psychological evaluations with adult,

teen, and child clients.

09/1995-05/1998   Teaching Assistant - University of Texas-Pan American
Duties: Prepared and delivered lectures and
demonstrations to undergraduates in Introductory
Psychology courses, created test materials and responsible
for all course administration. Substitute lectured
undergraduate statistics, abnormal psychology, and
developmental psychology courses.

01/1997-05/1998   Research Assistant - University of Texas-Pan American
Duties: Perform data analyses under direction of principal
investigator of a nationally-funded grant, responsible for
supervision of two undergraduate assistants in the
collection of data. Managed the Psychology Department
Laboratory and ensured adherence to ethical standards.

01/1996-08/1996   Clinic Assistant - University of Texas-Pan American
Duties: Performed intake screenings for Graduate Clinical
Practicum students, scheduled appointments, responsible
for inventory and signing out of testing materials.

Research/Presentations

2004   Jou, J. W., Leka, G. E., & Rogers, D. M., Matus, Y. E.
(2004). Contraction bias in memorial quantifying
judgment: Does it come from a stable compressed memory
representation or a dynamic adaptation process? *American
Journal of Psychology*, 17(4), 543-564.

1999   Harris, R. J., Tebbe, M. R., Leka, G. E., et. al. (1999).
Monolingual and bilingual memory for english and spanish
metaphors and similes. *Metaphor and Symbol,* 14, 1-16.

1998   Master's Thesis: Acculturation of Mexican-American
Males and Gender Role Conflict. Selected content was
presented at the 106th Annual American Psychological
Association Convention as part of a symposium on male
gender role conflict research: San Francisco, CA.

Aldridge, J. W., Jou, J., Leka, G. E., & Espinoza, B. L.
(1998). *Analysis of articulatory suppression enhancement
of alphabetic judgments.* Presentation at the 44th Annual

Meeting of the Southwestern Psychological Association: New Orleans.

1997   Jou, J., Leka, G.E., et al., (1997). *Linear-Order Schema Theory Vs. Hierarchical Structure Theory In Memory Of Conjoined Series*. Presentation at the 1998 Annual Meeting of the Southwestern Psychological Association.

Jou, J., Leka, G. E., Espinoza, B. L., & Chapa, T. Y. (1997). *Reference points in linear-order structure determine forms of the serial position effects.* Presentation at the 38th Annual Meeting of the Psychonomic Society, Inc.

1996   Harris, R. J., Tebbe, M. R., & Leka, G. E. (1996). *Bilingual and monolingual memory for metaphors and similes.* Presentation at the 37th Annual Meeting of the Psychonomic Society, Inc.

Professional Associations

American Psychological Association
Rio Grande Valley Psychological Association

Other Memberships

Psi Chi National Honor Society (Chapter President 05/97-05/98)
Phi Kappa Phi National Honor Society

Professional Licenses

Licensed Psychological Associate (Texas State Board of Examiners of Psychologists, April 1999).
Licensed Professional Counselor (Texas State Board of Examiners of Professional Counselors, March 2000).