

TERROR MANAGEMENT THEORY AND RACIST ATTRIBUTIONS:
MORTALITY SALIENCY AND BIAS LEVEL AMONG BLACK AMERICANS

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ABSTRACT

The current study was undertaken to elucidate the findings related to the terror management theory (TMT) and racial bias. According to the tenets of TMT, reminders of one's own mortality will cause an increased need to validate one's worldview. This hypothesis was tested by assessing Blacks' expectations of White racism in ambiguous scenarios. Among those who are highly biased against Whites, it can be assumed that expectations of White racism are inherent to their worldview. We predicted that high bias individuals would have a greater need to see an ambiguous situation as racist after the mortality salience manipulation as a means to defend their worldview. As predicted, high bias individuals rated the ambiguous scenarios as more likely to be caused by racism than did low bias individuals. A main effect for mortality salience showed that those who were asked to consider their own death rated the scenarios as more racist than did the control group. Most importantly, a significant interaction between mortality salience and bias level provided evidence that racist attributions can be predicted by the TMT. This study was the first TMT investigation into the effects of mortality saliency on Blacks and the first to examine the level of racial bias as an independent variable.

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DEDICATION

I would like to dedicate this thesis to my grandparents, James W. Adams, Betty C. Adams, Ernest O. Noles, and Isabella D. Noles. I wish they could be here to see all that I have accomplished; I think they would be proud.

I would also like to dedicate this thesis to Diane LaRocque. She is one of the most brilliant and beautiful people that I have ever met, and her insight to the areas of psychology far exceeds what is found in a text book. Her contribution to my life can not be simplified into words. Though geographical distance keeps us apart, she is with me always.

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Terror Management Theory and Racist Attributions:

Mortality Saliency Effects as Related to Bias Level in African Americans

Psychologists have given immense study to the causes and attributions of human behavior in everyday life. One general theme seen throughout the research involves the contention that humans desire organization in their surroundings (Fiske & Neuberg, 1990). To attain this goal, schemas, stereotypes, and other cognitive “shortcuts” are developed and used to simplify the complex world around us (Allport, 1954; Fiske & Taylor, 1991). Interestingly, some evidence shows that our need to impose structure on the world can cause us to generate organization when it may not be there, reasserting the claim that humans long for order in their environment (Nisbett & Ross, 1980; Pennington & Hastie, 1986). Once organization has been established by drawing upon these inferences and making decisions, a worldview develops which provides structure and lays the framework for their perspective on the world (Becker, 1962). One question that arises from these findings deals with how imposing structure by using simplified conclusions may affect interpretation of new information in relation to the previously developed worldview.

INTRODUCTION

Overview of Terror Management Theory

In an attempt to account for the pervasiveness of the cultural worldview, Greenberg, Pyszczynski, and Solomon (1986) proposed the terror management theory. Their theory focuses on individuals’ use of a cultural worldview to shelter themselves from the ultimate terror of death by developing self-esteem and faith in their perspective of the world. Because humans have the unique ability to be self-aware, they can see

themselves objectively and anticipate future events outside of their existence (Duval & Wicklund, 1972). The ability to view one's self leads to many insights, and, quite possibly, the most important one is the realization that at some unpredictable point in the future death will occur (Becker, 1973). Through self awareness one is able to conceive the eminence of death, but the terror management theory purports the cognitive abilities that allow for this knowledge can also be used to manage the anxiety caused by this realization. Due to the fact that we are self aware, we can make decisions and draw conclusions that will allow us to assuage this fear, and these conclusions can be seen in the form of a cultural worldview (Greenberg, Solomon, & Pyszczynski, 1997). A cultural worldview can be seen as "humanly created symbolic conceptions shared by members of a group that present a credible and security-providing depiction of reality to the acculturated individual" (Landau, Johns, Greenberg, Pyszczynski, Martens, Goldenberg, et al., 2004).

How does this worldview function to provide security to an individual? The ultimate means by which security is achieved occurs by ascribing to the worldview and gaining self-esteem through living up to the standards that it dictates. Termed the dual-component cultural anxiety buffer, the worldview, and self-esteem it provides, are the mechanisms by which humans are able to manage the fear of dying (Solomon, Greenberg, & Pyszczynski, 1991). The worldview provides security in a seemingly insecure world by making a person part of something larger than their individual identity- something that will endure beyond their death, something that will allow them to live on into future generations. Immortality can be gained through a worldview in several ways: living on through an afterlife, allying oneself with an institution that will continue after

death, leaving behind physical artifacts such as books, monuments, group memberships, etc., and by viewing children as a means to reach into the future (Solomon, Greenberg, & Pyszczynski, 1991). Though religious doctrines may be the easiest example to bring to mind, it is beneficial to recognize that this theory dictates that all people, regardless of religious beliefs, have a worldview that encompasses what they accept to be true in the world. As a child, cultural teachings and personal experiences form a conception of reality that continues to grow and expand as the cognitive abilities of the individual advance throughout life. All of the instructions that are passed down through the caregiver to the child become important when the child begins making choices; which will either be praised as acceptable and good or be punished for violating cultural norms (Greenberg, Solomon, & Pyszczynski, 1997). Receiving praise and parental acceptance becomes contingent on living up to the ascribed rules of a given cultural worldview, and this praise is instrumental in developing security and a positive self image (Horney, 1950).

The self-esteem that follows from adhering to a cultural worldview is the second component of the anxiety buffering hypothesis (Solomon, Greenberg, & Pyszczynski, 1991). Many areas of research have focused on the importance of self-esteem to the overall well being of an individual (Mann, Hosman, Clemens, Schaalma, & de-Vries, 2004; Spencer, Josephs, & Steele, 1993). Although they have generated useful information indicating that social inclusion and acceptance is paramount (Baumeister & Tice, 1990; Leary, Tambor, Terdal, & Downs, 1995), explanations of the process are scarce. The terror management theory argues that validation of one's worldview through social acceptance provides self-esteem in light of the overwhelming anxiety of death.

Because the feeling that one is living up to cultural standards is associated with feelings of acceptance from a valued cultural group, it is vital to individuals that they adopt a worldview and ascribe its merits in order to buffer the anxiety of worthlessness (Greenberg, Solomon, & Pyszczynski, 1997). The ultimate condition of worthlessness is physical death with no promise of immortality.

In summary, the first component of the terror management theory implies that psychological structures (i.e., cultural worldview) which protect against anxiety should also protect against future anxiety threats. This speaks to the beneficial nature of the worldview and the anxiety buffering utility of the self-esteem it creates. It also depicts how the worldview repeatedly functions to shield the individual from anxiety (i.e., the terror of death). The second component of the theory involves the consequences of increasing the salience of mortality related thoughts. Specifically, it is suggested that the fear of death is assuaged by a belief in a worldview, thus reminding people of their own mortality will increase a persons need for confirmation of the correctness of their world view (Greenberg, Solomon, & Pyszczynski, 1997).

The Basis of the Terror Management Theory

Everyday events cause the individual's cultural worldview to be threatened. Whether it is news stories, water cooler discussions, or internal conflict, individuals must sort through massive loads of information and decide on an appropriate conclusion. Conflicts which arise between actions, thoughts, and beliefs have been deemed cognitive dissonance (Festinger, 1957). Because this inconsistency would seem to violate the need for structure and organization, people cope with cognitive dissonance in a variety of methods. Several ways of eliminating this uncomfortable state include: changing one of

the inconsistent elements in the cognition, diminishing the importance of the inconsistent cognition, and/or adding more information to create harmony between the dissonant cognitions (Petty, 1995). Research in the area of cognitive dissonance has shown that people exhibit a preference for supportive information to sustain previously held beliefs (Frey, Schulz-Hardt, & Stahlberg, 1996), which compliments the predictions of this theory. According to the terror management hypothesis, dissonance occurs when conflicting persons or ideas call the worldview into attention, which in turn creates a need for validation of the worldview. If two pieces of dissonant information, such as belief in racial stereotypes and a disconfirming stereotype member, occur after a person has completed the mortality salience manipulation, then the legitimacy of a person's worldview may be challenged and they will show preference for their previously held beliefs (Schimel, Simon, Greenberg, Pyszczynski, Solomon, Waxmonsky, et al., 1999).

Defining the Mortality Salience Manipulation

To fully understand the impact of the mortality salience manipulation, it may be useful to examine how it is presented in an experimental manipulation. When subjects are brought into the lab, they are presented with filler questions which are generally in the form of a personality assessment. Embedded within the questionnaire are two open-ended questions: the first, "Please describe the emotions that the thought of your own death arouses in you," and the second, "Jot down, as specifically as you can, what you think will happen to you as you physically die and once you are physically dead" (Greenberg, Solomon, & Pyszczynski, 1997). These questions attempt to explicitly direct the participant to accessing thoughts of death. To create a control condition, the subjects are asked to write about dental pain, thoughts of an upcoming exam, watching television, the

death of a loved one, etc., and regardless of how anxiety provoking the control may be, the effects of the mortality salience manipulation are not qualified (Greenberg, Solomon, & Pyszczynski, 1997; Greenberg, Schimel, Martens, Solomon, & Pyszczynski, 2001; Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). The robust nature of the findings associated with the mortality salience manipulation illustrates that there is a unique process associated with thinking about one's own death. Specifically, this process creates a need to validate one's worldview, resulting in individuals having a more positive evaluation of things that support their worldview, while derogating people or ideas that challenge their worldview. (Greenberg, Simon, Solomon, Lyon, & Pyszczynski, 1991; Rosenblatt, Greenberg, Solomon, and Pyszczynski, 1989; Schimel, Simon, Greenberg, Pyszczynski, Solomon, Waxmonsky, et al., 1999).

Parameters of Mortality Salience Influences

Although there is extensive evidence of a direct relationship between increasing the salience of mortality related thoughts and the need for worldview confirmation, there do seem to be limits to this phenomenon. For example, previous research has shown that mortality salience tends to have minimal influences in situations that are not central to the worldview. A study by Rosenblatt, Greenberg, Solomon, and Pyszczynski (1989) investigated whether bond assignment for a convicted prostitute would vary as a function of mortality salience. Their results indicated that the mortality salience manipulation led the municipal court judges to assign bonds that were five times greater than control condition. The authors contended that mortality salience had an influence on the judges because appropriate criminal punishment issues were central to their worldview. Similarly, Ochsman and Reichelt (1994) conducted a study among German college

students and found that no such pattern emerged. This difference in results can be attributed to differing cultural worldviews, and specifically that prostitution is legal in Germany; therefore it carries different social norms (cited in Greenberg, Solomon, & Pyszczynski, 1997).

Evidence also suggests that another requirement for the mortality salience influence is that it must be outside the realm of focal attention for an effect to be observed (Greenberg, Solomon, & Pyszczynski, 1997; Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). To create this condition, researchers have employed a variety of techniques. One of the most common methods is to create a delay by using short word-search puzzles or through other filler questionnaires (Greenberg, Solomon, & Pyszczynski, 1997). This allows the thoughts of death to leave the conscious awareness of the participant, but illustrates the importance of the accessibility of worldview defense. To elaborate on this idea, Greenberg, et al. (1994) compared the delay procedure to a prolonged focus on death related words and found that the mortality saliency effects were negated by continued attention to death related words. This supports the contention that mortality salience has a greater influence when it is not in focal attention, and if in fact there is focal attention, worldview defense is less likely.

There is also evidence that mortality salience will have a minimal influence on perceptions if participants engage in deliberate and/or rational processing. To illustrate, Simon, Greenberg, Harmon-Jones, Solomon, Pyszczynski, Arndt, et al. (1997) instructed students to answer questions after the mortality salience manipulation either rationally or experientially. These questions dealt with critiques of the United States, and a pro-American bias was expected under the experiential condition. The results confirmed

their expectations that when students were instructed to “carefully consider” the arguments, the mortality salience bias was not observed, but when instructed to go with “a gut-level reaction,” a pro-American bias was observed. The authors contended that cognitive attention can override the initial experiential decision and lead participants, who were instructed to think more carefully about the arguments, to engage in rational decision making. These findings are important because of the evidence that the majority of our processing time is in the gut level and experiential mode (Epstein, 1994). Consequently, any cue that reminds an individual of death will probably cause a worldview defense to occur.

There is also evidence which suggests that for the mortality salience manipulation to be effective it must be focused on the *self* and not the death of a significant other. Greenberg, et al. (1994) tested this notion by comparing mortality salience focused on the self versus the same questions focused on the death of a loved one. Because the main rationale behind the terror management theory deals with self-preservation, death focused on the self should produce a greater need for validation of the worldview than focusing on the death of another person. The authors wanted to investigate the hypothesis that the death of a loved one would be enough of a reminder of one’s own mortality to create an equivalent effect of worldview defense. In accordance with TMT, participants only showed a greater pro-American bias when thinking about their *own* death as compared to the death of a loved one or control conditions.

Just as the anxiety of losing a loved one does not produce increased worldview defense, previous research has shown that other high arousal events do not typically produce the same effects as mortality salience (Greenberg, Simon, Solomon, Lyon, &

Pyszczynski, 1991; Landau, et al., 2004; Rosenblatt, et al., 1989). These studies looked at dental pain, an upcoming exam, eating food, and watching television to see if there were any effects for arousal or anxiety that would explain the differences in worldview defense. The tendency to defend a worldview was not activated under these conditions. Also assessed in almost every study was the increase in positive or negative affect, via the Positive and Negative Affect Schedules (PANAS; Watson, Clark, and Tellegen, 1988) after the manipulation. Though some studies have shown increased negative affect under various control conditions, the emergence of negative affect does not seem to offer a credible explanation for increased worldview defense under mortality saliency (Greenberg, Solomon, & Pyszczynski, 1997).

General Findings of the Terror Management Theory

There is considerable empirical evidence which clearly indicates that there is a human tendency to support ideas that are consistent with one's worldview and derogate inconsistent viewpoints (Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland, et al., 1990; Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995; Schimel, et al., 1999). In one of the first experiments designed to examine this phenomenon, Greenberg et al. (1995) asked Christian participants to form an impression of target individuals. Two target groups were used to compare the effects of mortality salience; they were asked to evaluate either Christian or Jewish targets. Under the mortality saliency condition, more positive impressions of Christian targets were formed as compared to more negative impressions of Jewish targets; this effect was not seen under control conditions. In a more recent and culturally relevant study, Landau, Solomon, Greenberg, Cohen, Pyszczynski, Arndt, et al., (2004) looked at support for

President George W. Bush and his counterterrorism policies after September 11th and found that after priming mortality salience, college students showed more support for President Bush and his policies than those in the control conditions. Because ostensibly a national leader stands for and defends the relevant culture, he too would defend the valued cultural worldview. As well as support for a national leader, nationalistic bias also exhibits mortality saliency effects. In a study assessing blame in an auto accident, researchers found that more blame was assigned to the Japanese manufacturer as compared the U. S. manufacturer under conditions of mortality salience. No significant difference in damages awarded was seen under control conditions (Nelson, Moore, Olivetti, & Scott, 1997). To determine if such nationalistic effects can be seen in other cultures, Jonas and Greenberg (2004) asked German participants to evaluate essays pertaining to the destruction of the Berlin Wall and the reunification of Germany. They found that mortality salience conditions increased positive evaluations of an essay supporting reunification and increased negative evaluations of a critique of reunification as compared to control conditions. These studies illustrate the power of worldview defense, even in areas such as manufacturing and politics, and how important the need to validate the worldview can be in human perception.

One issue that has received minimal empirical attention in the terror management research involves race and race related constructs. Due to socialization processes in this culture, race is often a salient characteristic in many attributional situations. In one of the few studies on this issue, Schimel et al., (1994) asked participants to write essays explaining how they spent their summer vacation. A confederate Black participant was included to create either a stereotype consistent, inconsistent, or neutral Black male

condition. They were instructed that they would be reading and rating other participants essays and assessing how likely they would be to like the person, as well as how interested they would be in getting to know this person. They found that under mortality saliency conditions, targets showed a greater target liking for the stereotypical Black male, as compared to a greater liking for the non-stereotypical Black male target under control conditions. The authors reported these results to be consistent with the terror management theory, because a group member who conforms to a previously held stereotype does not challenge the worldview. The conservatively dressed, chess-playing, engineering major violated the stereotypes of Black males, therefore violating the worldview of the participants, where as the “crusin’ for honeys, clubbing, getting stupid” target conformed to what they already held to be true.

Another study by Greenberg, Schimel, Martens, et al. (2001) looked at support of White racist ideology among White participants under control or mortality saliency conditions. In study one, they assessed support for White and Black pride statements and found that White pride statements were perceived as more racist than Black pride statements, and that participants reported liking the Black pride essayist more than the White pride essayist. In the second study, mortality salience was manipulated and White participants under the mortality saliency condition showed greater support for the White pride essay than was observed in the initial study. This change did not occur under the control condition leading the authors to conclude that contemplating death aroused the need to identify and support one’s racial group. The third study dealt with attributions of racist behavior. They had participants read a court case dealing with either a White employer convicted of racially discriminating hiring practices against a Black employee

or the opposite scenario. They found that after manipulating mortality salience, participants saw the White boss as being less guilty of racist hiring practices compared to control conditions. In ascribing guilt to a Black employer, the results were only marginally significant, but indicated slightly higher perception of guilt under mortality salience.

Despite the extensive research which is consistent with the terror management perspective, there is at least one limitation that has not received empirical attention. Specifically, there has been minimal effort to directly assess whether the influence of mortality salience will vary as a function of the stereotype endorsement. The previous mortality salience research involving race was based on the assumption that group membership and stereotype endorsement is stable across group members, without considering individuating differences. Given that a major component of terror management theory involves the defense of one's world view after mortality salience, it would be very interesting to assess whether the consequences of such salience would vary as a function of endorsement of a certain worldview. For example, one "worldview" among Blacks involves the perception that the typical White person is racist. However, Johnson & Lecci (2003) demonstrated that there is individual variation in this worldview. Thus, one of the major purposes of the present study is to extend the terror management literature by assessing whether the consequences of mortality salience are moderated by the level of stereotype endorsement (i.e., high level of endorsement vs. low level of endorsement).

Formation and Perceptual Influences of Stereotypes

When examining how stereotypes function in society, it is beneficial to understand how they are defined. Allport pioneered the field in 1954 with his book, *The Nature of Prejudice*, and defined stereotypes as “an exaggerated belief associated with a category” (p. 191). Using this working definition, it is easy to see how a stereotype can become problematic when applied to individuals over a prolonged period of time.

Another definition was put forth by Ashmore and Del Boca (1981) describing stereotypes as “a set of beliefs about the personal attributes of a group of people” (p. 16).

These explanations provide greater clarity in understanding how group dynamics are influential in judgments, as well as how the actual behavior of an individual is disregarded in favor of looking at the expectations of a group.

Since the evidence seems irrefutable that stereotypes exist, a question that has received extensive empirical attention involves the exact nature of stereotype formation. In some of the earliest work in this area, Tajfel (1969) asserted that stereotyping and prejudice results from social categorization, which is innate to human cognition. Developing an accurate perception of a person requires a great deal of cognitive effort, and to shorten this process individuals rely on previously formed categories to make decisions. He also reported that we view people in relation to how similar they are to ourselves. This leads to ingroup (i.e., people who are similar to us on some domain) and outgroup (i.e., people who are not similar to us on some domain) biases.

Another important factor in stereotype formation deals with the effects of social learning. Because parents pass down knowledge and values to their children, they pass down stereotypes as well. Research in this area has consistently shown that many

attitudes held by children were handed down by the parents, and that many of these attitudes continue into adulthood (Katz, 1976; Towles-Schwen & Fazio, 2001). These attitudes do not have to be directly handed down, but the child is able to learn and observe their environment and consequently internalize these attitudes to be used in future situations (Allport, 1954). Even jokes and slang that are used around children can become learning experiences that will have effects far into the future (Rohan & Zanna, 1996).

Research has also shown that the media and media related stimuli can play a major role in the development of race based bias in America. For example, a study by Oliver and Fonash (2002) showed that when White participants were asked to identify either Black or White suspect in fake news stories from a newspaper, they were more likely to misidentify a Black suspect for a violent crime but not for a nonviolent crime. This aligns with the stereotype that Blacks are violent, and this idea has been perpetuated in the media. An analysis of 14 weeks of newscasts in Philadelphia revealed that Whites were more likely to be shown as victims of a crime, while people of color were overrepresented as the perpetrators of violence. The study also found that crimes with a person of color as the perpetrator were reported at a rate 20% greater than predictions by FBI statistics (Romer, Jamieson, deCoteau, 1998). Many other recent studies have shown that the bias in overrepresenting Blacks as violent crime perpetrators is pervasive and contributes to the violent stereotype of Blacks (Dixon, Azocar, & Casas, 2003; Dixon & Linz, 2002; Klein & Naccarato, 2003).

A relevant issue for the present study involves how stereotypes influence decisions and judgments. One of the earliest studies in this area was conducted by

Duncan (1976) who examined the stereotype that Blacks are violent. His results showed that an ambiguous shove was interpreted as more violent when the confederate was Black as opposed to when he was White. A more recent study in the area of stereotyped Black violence and crime found that in a mock juror situation, participants made more negative evaluations and sought more confirmatory evidence when the crime was stereotypical (auto theft) than non-stereotypical (embezzlement) (Jones & Kaplan, 2003). Another stereotype that is commonly associated with the Black community is that of athleticism. In a study to examine objective and subjective target ratings, Biernat and Manis (1994) found that Black targets were judged to be more athletic than an identical White target. The same study also found that a White target was deemed to have better verbal skills than the Black target, coinciding with the stereotype that Blacks are less intelligent.

Jussim (1986) suggests that when a target individual violates the expected stereotype a more polarized judgment will ensue. His theory proposes that Blacks will be seen more favorably than Whites if they possess an unexpected positive characteristic or if the White target possesses an unexpected negative characteristic. In a study conducted to test this hypothesis, results showed that an upper class Black applicant was rated more positive than a similar White applicant (Jussim, Coleman, & Lerch, 1987). Due to the fact that Blacks are stereotyped as poor, an upper class Black applicant caused the participants to see him more favorably, because he had an unexpected trait (i.e., wealth). This theory, along with many previous findings, addresses the power of stereotyping in judgments.

While the influence of stereotypes on perceptual processes was clearly established, some prejudice researchers began to show interest in the influences of

individual variation in the endorsement of such stereotypes. For example, Lepore and Brown (1997) demonstrated that while high and low prejudice Whites were equally informed on racial stereotypes, only high prejudice individuals formed a more negative opinion of a target after being primed to think about Blacks. More recently, Lepore and Brown (2002) illustrated that after the category of “Blacks” was primed, high and low prejudice individuals differed in their perceptions of a target person. Congruent with earlier research, high prejudice individuals formed a more negative opinion, while low prejudice individuals developed a more positive opinion of the target. McConahay (1983) compared high and low bias Whites and found that as compared to the low prejudiced Whites, those who had higher prejudice scores were more likely to make positive or negative evaluations of Black targets by using contextual cues. Instead of showing more consistent evaluations, those who were more highly prejudiced relied on the situation rather than a consistent attitude to form evaluations. Those who had higher prejudice scores also tended to rate a Black job candidate lower as compared to less prejudiced participants.

When conflicting or ambiguous information is presented in reference to stereotype relevant judgments, differences between high and low individuals become accentuated. In a study to examine these differences, students were asked to make judgments about applicants to their university. When consistently high or low credentials were presented, no differences were observed between high and low bias participants in subsequent evaluations of Black or White applicants. However, when the information was not clearly defined, high bias participants made more negative judgments of a Black

applicant and construed the ambiguous information to confirm their evaluations (Hodson, Dovidio, and Gaertner, 2002).

In an attempt to gain a greater understanding of the basis for the differences between high bias and low bias participants, Devine (1989) measured knowledge and endorsement of stereotypes. She found that both high and low bias participants were equally knowledgeable about Black stereotypes, but low bias individuals inhibited this knowledge and made an attempt to express egalitarian views. When asked to make a list of thoughts associated with Black Americans, low bias participants expressed ideas that opposed the known stereotypes, whereas the high bias participants gave thoughts congruent with the stereotypes. High bias participants also assigned traits to the group as a whole and used more negative adjectives. It would seem that the personal willingness to refute stereotypes is a key determiner in subsequent actions after a stereotype has been primed. Unfortunately, the overwhelming majority of the literature looking at stereotype formation and application has focused on the White perspective with very little empirical attention given to the Black perspective. Thus, a second major purpose of the present study is to extend the stereotyping literature by investigating the consequences of relatively high or low endorsement of Black anti-White stereotypes.

The first attempt to examine the Black perspective was by Brigham (1994) and consisted of questions that were mainly taken from White racism questionnaires and reversed to assess the Black viewpoint. While this was an important step in understanding Black biases, one major critique cited the lack of Black participants in developing concepts that were relevant to everyday experiences (Johnson and Lecci, 2003). Monteith and Spicer (2000) conducted a study to determine the major differences

between Black and White participants' intergroup perceptions. They found several differences, the most relevant issue dealing with perceived racism among Blacks. Whereas Whites were more likely to have negative views towards Blacks that fit into the tenets of modern racism, Black participants negative views were classified as a reaction to perceptions of racism from Whites. To address the differences in the Black perspective, Johnson and Lecci (2003) devised the Johnson-Lecci Scale (JLS) to more fully understand the anti-White bias.

Based on the responses of Black participants, the JLS is the only empirically validated instrument that directly assesses Black anti-White bias responses. The items on the scale were developed from the responses of heterogeneous group of Black participants in order to create an original list of items based on the experiences of the participants. The scale was developed using a factor analysis method and was cross-validated in an independent sample. Moreover, the instrument has been shown to have high internal, predictive, convergent, and discriminate validity. Four separate subscales were derived from the data, but the subscale most relevant to the current research is the Ingroup Stigmatization and Discriminatory Expectations. It focuses on the extent to which Blacks endorse the belief that Whites will engage in discriminatory and biased behaviors towards Blacks. This subscale is composed of seven questions such as, "I believe Whites would love to return to a time in which Blacks had no civil rights," and "I believe Whites would discriminate against Blacks if they could get away with it," to address these issues. Johnson and Lecci (2003) demonstrated that the scores on this subscale of the JLS could accurately be used to predict perceived racism and the extent that the participants engaged in friendships with Whites.

Overview of the Present Study

Participants were instructed that they are taking part in two studies; the first study titled “Group Perceptions” assessed bias level via the completion of the Johnson-Lecci Scale (Johnson & Lecci, 2003). A median split was employed to divide the participants into high and low bias groups. After two weeks, the participants were instructed that they would be filling out several unrelated questionnaires for a student from another university. In the first part, titled “Personality Measures,” a personality questionnaire was distributed and this survey contained the mortality salience manipulation or the control condition of watching television. Thus, the design for the present study was a 2 (bias level: high bias vs. low bias) x 2 (mortality salience: death vs. television) factorial. The second part of the survey was entitled “Decision Making Task,” and participants were presented with a variety of scenarios and asked to make attributions regarding the extent that bias may have been involved. Some of the scenarios were stereotype unrelated (i.e., obesity, homelessness) to ensure that subjects were unaware of the variables being measured.

The main dependent variable of the current study is the extent to which racist attributions (i.e., participant perceptions that racial bias was involved) are made in ambiguously racist scenarios. Additionally, the present study assessed the generalizability of mortality salience influences by assessing whether judgments are “indirectly” associated with one’s worldview. Specifically, one of the scenarios involved ambiguously racist behavior towards Hispanics. While these judgments do not involve anti-Black bias, they do involve bias and how mortality salience influences such responses will be examined.

Expectations

Bias Level

High bias participants are expected to make greater racist attributions than low bias participants. This is expected due to earlier findings involving the influence of endorsing anti-White stereotypes (see Johnson & Lecci, 2003).

Bias level x Mortality Saliency

Racist attributions are not expected to vary as a function of mortality saliency for low bias participants. For high bias participants, however, those in the mortality saliency condition are expected to make greater racist attribution than those in the dental pain condition. This greater attribution is expected because high bias individuals have a worldview that encompasses anti-White sentiment and beliefs; therefore reminding them of their mortality will create a need to verify their assumptions. Given an ambiguous situation, racist attributions will increase as an anxiety-buffering mechanism to decrease the threat to their worldview. Because it is expected that judgments unrelated to stereotype relevance will not be affected, no changes in unrelated scenarios are expected. Results in reference to the Hispanic situation are ambiguous because no research has explored the effects of anti-White bias outside of Black/White scenarios.

METHOD

Participants

Thirty eight female and 24 male participants were recruited from a predominantly Black university to take part in the study. They were offered extra credit or partial fulfillment of class credit for their participation.

Materials and Procedure

Assessment of Beliefs Regarding the White Anti-Black Bias

Participants were administered the “Group Perception Task” which consisted of 20 questions that assessed their views of various social groups. Embedded among questions pertaining to overweight people, lawyers, and the homeless, 7 questions from the *Ingroup Stigmatization and Discriminatory Expectations* factor of the Johnson-Lecci Scale (Johnson & Lecci, 2003) were included (See Appendix). These questions were scored on a four point Likert scale ranging from 1-strongly agree to 4-strongly disagree. Once computed, the participants were divided in to high bias ($M = 3.13$) and low bias ($M = 1.56$) groups based on a median split of the scores. The two groups served as the experimenter selected variable in the study (bias level-high vs. low bias). The results from the JLS were analyzed, and after referring to coding on the demographic information sheets, participants were identified in the second experimental phase.

Mortality Salience Manipulation

After a delay of approximately one to two weeks, the same participants were contacted and administered the mortality salience manipulation and subsequent scenarios. They were instructed that they were helping with a project for a graduate student at another university and that there were two separate studies within the experiment. The first part examined a multitude of personality measures, while the second part was the “Decision Making” task. The mortality salience manipulation was included in the personality measures questionnaire and consisted of the two open-ended questions pertaining to death. They were as follows: “Please describe the emotions that the thought of your own death arouses in you” and “Jot down, as specifically as you can, what you

think will happen to you as you physically die and once you are physically dead.” A control condition of dental pain was used for comparison. In the control condition, the same questions were posed except the words dental pain was substituted for death.

Delay and Distraction

The PANAS (Watson, Clark, & Tellegen, 1988), a 20 item mood measure, followed the personality questionnaire to assess for any negative emotions that the thoughts of death may create. Directly after the PANAS, a short word search puzzle of unrelated words was administered to create a longer delay between the mortality salience manipulation and assessment of the dependent measure.

Racist Attributions

To assess the dependent variable pertaining to the degree of racist attributions when reading an ambiguous situation, six scenarios were presented that dealt with a variety of issues. The scenarios of interest are as follows:

A. Black police stop-One evening two Black men were driving through a suburban neighborhood. Out of their rearview mirror they observed that a police officer had his lights on and was signaling them to pull over. When the White officer approached the window, he explained that they were being pulled over for exceeding the speed limit by 3 miles per hour.

B. Hispanic police stop-After work, several Hispanic men were driving home in a truck, and the driver did not use a turn signal at a small intersection. They were pulled over by a White police officer, who then issued them a traffic violation for failing to signal at an intersection.

C. Restaurant-To celebrate their wedding anniversary, a Black couple decided to have dinner at a very nice restaurant in town. A White waiter informed them that they would have to wait approximately 30 minutes for a table. After they had been waiting 20 minutes, a White couple enters the restaurant, approaches the hostess, and is seated immediately.

D. Credit card-While standing in line at a department store, a Black female customer noticed that the clerk did not ask the White woman in front of her for identification after making an expensive purchase on a credit card. When she approached the clerk to pay for her purchases, she was immediately asked for identification when she pulled out her credit card.

These vignettes were embedded with other distracter scenarios. The major dependent measure was a question assessing their perceptions of the extent that racial bias played a role in the ambiguously racist behavior depicted in the scenarios. Their answers were assessed by on a seven point Likert scale ranging from 1-not likely at all to 7-very likely.

RESULTS

Given that there were no significant main effects or interactions involving gender, it was not included in any of the analysis. Moreover, the results indicated that mortality salience did not influence negative affect, $F(1,60) = .12, p > .25$ or positive affect, $F(1,60) = .33, p > .25$. Thus, the major analysis for the present study involved a 2 (bias level: high bias vs. low bias) x 2 (mortality salience: death vs. dental pain) ANOVA which was performed on the Black police stop, restaurant seating, credit card check, and Hispanic police stop dependent variables.

Effects of Mortality Saliency

The results, as shown in Table 1, indicated that the main effect of mortality saliency reached significance for the Black police stop, $F(1,60) = 4.65$, $p < .05$, restaurant seating, $F(1,60) = 4.96$, $p < .05$, and the credit card check dependent variables, $F(1,60) = 4.16$, $p < .05$. Participants in the mortality saliency condition reported that it was more likely that race influenced the situations than did those in the control condition. However, there was no influence of mortality saliency on the Hispanic police stop dependent variable, $F(1,60) = .07$, $p > .25$.

Table 1

Mean Racist Attributions as a Function of Mortality Saliency

	MS	Control
Black police stop	4.31 (.91)	3.91 (1.02)
Restaurant	4.33 (.78)	3.83 (.87)
Credit card	4.27 (.88)	3.85 (.99)
Hispanic police stop	3.44 (.77)	3.51 (.97)

Note. Higher values indicate greater racist attributions. Standard deviations are in parenthesis.

Effects of Bias Level

The results, as shown in Table 2, indicated that the main effect of bias level reached significance for the Black police stop, $F(1,60) = 36.91, p < .001$, restaurant seating, $F(1,60) = 24.36, p < .001$, and the credit card check dependent variables, $F(1,60) = 31.42, p < .001$. High bias participants reported that it was more likely that race influenced the situations than low bias participants. However, there was no influence of bias level on the Hispanic police stop dependent variable, $F(1,60) = .02, p > .25$.

Table 2

Racist Attributions as a Function of Bias Level

	High	Low
Black police stop	4.39 (.78)	3.81 (1.07)
Restaurant	4.42 (1.11)	3.12 (.86)
Credit card	4.36 (.90)	3.76 (.93)
Hispanic police stop	3.41 (1.11)	3.54 (1.03)

Note. Higher values indicate greater racist attributions. Standard deviations are in parenthesis.

Mortality Salience by Bias Level Interaction

Of central importance and consistent with the major predictions, Table 3 illustrates the interaction between mortality salience and bias level reached for the Black police stop, $F(1,60) = 8.16$, $p < .01$, restaurant seating, $F(1,60) = 8.20$, $p < .01$, and the credit card check dependent variables, $F(1,60) = 7.15$, $p < .01$. For all three dependent variables, racism likelihood estimates did not vary as a function of mortality salience for low bias participants. However, for high bias participants, those in the salient condition reported that it was more likely that race influenced the situations than those in the control condition. The interaction between mortality salience and bias level did not reach significance for the Hispanic police stop, $F(1,60) = 1.5$, $p > .20$.

Table 3

Racism Related Response Means as a Function of Bias Level and Mortality Salience

	Black police	Restaurant	Credit card	Hispanic police
High Bias	4.72 (1.01)	4.60 (1.11)	4.70 (1.01)	3.48 (.73)
Salient	5.35 (1.11)	5.28 (1.03)	5.35 (1.04)	3.57 (.77)
Control	4.10 (.75)	4.12 (.87)	4.21 (.73)	3.42 (.70)
Low Bias	3.41 (.88)	3.43 (.97)	3.35 (1.07)	3.48 (.67)
Salient	3.33 (.73)	3.40 (.76)	3.35 (1.06)	3.34 (.83)
Control	3.50 (1.02)	3.56 (1.03)	3.43 (1.13)	3.63 (.50)

Note. Greater values denote greater subjective likelihood that race influenced the situations. Standard deviations are in parenthesis.

To support the explanations for the significant interactions, a series of planned comparisons were performed. For the Black police stop dependent variable, the results indicated that: a) the difference between the high bias-mortality salient condition and the high bias-control condition reached significance, $t(61) = 3.33, p < .001$; and b) the difference between low bias-mortality salient condition and the low bias-control condition did not reach significance, $t(61) = .41, p > .35$.

For the restaurant seating dependent variable, the results indicated that: a) the difference between the high bias-mortality salient condition and the high bias-control condition reached significance, $t(61) = 3.61, p < .001$; and b) the difference between low bias-mortality salient condition and the low bias-control condition did not reach significance, $t(61) = .51, p > .35$.

For the credit card dependent variable, the results indicated that: a) the difference between the high bias-mortality salient condition and the high bias-control condition reached significance, $t(61) = 3.47, p < .001$; and b) the difference between low bias-mortality salient condition and the low bias-control condition did not reach significance, $t(61) = 1.11, p > .20$.

DISCUSSION

The predictions of this study were fully supported by the data. According to the TMT, worldview defense will only occur under the conditions of mortality saliency if the variable being measured is a central to the worldview (Rosenblatt, et al., 1989). It was expected that high bias individuals would show a greater tendency to attribute racism to ambiguous situations under both control and mortality saliency conditions, with mortality saliency creating a higher need to confirm their worldview that Whites are racist. Because

worldview relevant issues (i.e., discriminatory expectations) had been brought into focal attention after the mortality saliency manipulation, confirming previously held beliefs (i.e., Whites are racist) served to buffer the anxiety associated with the awareness of death. The need to increase faith in one's worldview after reminders of death is the second hypothesis in the TMT, and was the hypothesis specifically tested in this study (Greenberg, et al., 1994). Conversely, and as expected, low bias participants had no difference in the ratings of ambiguous situations under conditions of mortality saliency or control. These findings can be predicted by previous TMT findings which showed beliefs must be central to the worldview in order for worldview defense to occur. It was hypothesized that for low bias participants, beliefs about White racism would not be strongly tied to their worldview; therefore it was expected that there would be no significant difference between those asked about death and those asked about dental pain. The data provided evidence that this assumption was correct. Because of the significant differences observed between high bias and low bias participants, the current study gives additional support to the idea that worldview relevant beliefs must be tested in order to see the predicted worldview defense.

Our data supports not only the TMT, but also the previous findings from the JLS which showed that high bias individuals are much more likely to make racist attributions to ambiguous information (Johnson & Lecci, 2003). An interesting manipulation in our study further shows that it must be related to a personal worldview to be affected. We included a scenario about Hispanic men to see if possible discrimination against other minorities would be enough to generate worldview defense. There was no significant difference between high bias and low bias or between conditions suggesting that possible

discrimination against other minorities is not enough to trigger worldview defense. This finding may relate back to previous literature in the area of perceived racism. Monteith and Spicer (2000) showed that Blacks' racist attitudes are more directly related to perceived racism than to a general negative attitude towards Whites. In the case of the Hispanic police stop, perhaps a lack of perceived racism towards Blacks inhibited higher racist attribution scores among Black participants. Another plausible explanation for these findings is the nature of ingroup and outgroup biases. The JLS subsection used in this study dealt with ingroup-directed stigmatization and discriminatory expectations, and it is possible that the participants felt no ingroup alliance with the Hispanic targets simply due to their minority status. This area of perceived racism towards another minority group is an area that needs further exploration in the literature.

No other TMT studies have examined bias level as a variable; thus they have made assumptions that members of one race will generally feel and respond in a similar manner. In Greenberg, et al. (2001) and Schimel, et al. (1999), the authors grouped all participants together as White and analyzed them based only on condition. Since the TMT has shown that there must be worldview relevance for an effect to occur, it was important to understand how relevant the variable (i.e., White racism) was to the worldview. Because those who scored lower on the JLS would presumably have fewer expectations about White racism, they would not rate the ambiguous scenarios as significantly more racist. For the low bias participants, our results showed that in all four scenarios that were analyzed, those in the control condition actually rated the vignettes as more racist than did those in the mortality saliency condition, though this difference was not statistically significant. Among the high bias individuals, every scenario was rated as

more racist by those in the mortality saliency condition as compared to the control condition.

The current study extends the TMT literature by providing evidence that variations in beliefs (i.e., anti-White racism) will moderate the effects of mortality saliency. Rosenblatt, et al. (1989) showed that when attitudes towards prostitution were assessed in a pre-measure of college students, only those who had unfavorable attitudes towards prostitution were affected by the mortality saliency manipulation. Though the researchers did not use an empirically validated scale to measure attitudes towards prostitution, this was the first evidence that variation in beliefs moderates the effects of mortality saliency. Because previous studies dealing with race have neglected to use any pre-measure to determine bias level, this study gives conclusive evidence that the variation in belief can moderate the extent to which mortality saliency will create a need to validate one's worldview.

The current study does have several limitations that should be addressed in future research. One issue deals with the population sampled: All participants were college students attending a predominately Black university in the southeastern United States. Research in the area of anti-White bias has shown that there are some differences between a community sample of Black individuals and a college population (Johnson, Lecci, & Swim, 2006). Due to research constraints, it was not possible to obtain a community sample of participants, so any variation associated with attending a predominantly Black university was not assessed. Future research should attempt to obtain multiple samples of Black participants to fully understand the findings associated with variation in beliefs and the effects of mortality saliency. Another limitation that

could be examined by further research is the exclusions of Whites in this study. It would be fascinating to see if there are any observable differences in high bias White participant's responses under mortality saliency conditions. Because of the nature of the JLS, another measure of racism would need to be utilized, but reversing the current study with White participants may yield interesting findings.

Possible studies in the future should also attempt to reverse the initial findings of TMT as related to racial bias (Greenberg, et al., 2001; Schimel, et al.,1999). One way that this could be examined would be to see if Blacks under mortality salient conditions would prefer a stereotypical White male, or if there would be variation based on their JLS score. Also, examining evaluations of White pride versus Black pride statements under mortality salient conditions may also yield some insight to the mechanics of TMT and racial bias.

Due to the current research into Black healthcare disparities (e.g., Schnittker, 2004; Schnittker, Pescosolido, & Croghan, 2005; Van Houtven, Voils, Oddone, 2005), a TMT study into the effects of doctor's offices and hospitals could help clarify some of these issues. If a doctor's office or hospital creates a mortality salient condition, then perhaps part of the mistrust of White doctors could be explained by the TMT. Conducting a study to assess the effects of hospitals and doctor's offices on worldview defense would be the initial step, followed by more extensive exploration of physician trust as related to the TMT. Since this area of research has real life implications for improving health outcomes for Blacks, this could potentially be an important step in understanding the health care disparities which exist in our current medical system (Smedley, Stith, & Nelson, 2003).

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APPENDIX

Appendix A. The Johnson-Lecci Ingroup Stigmatization and Discriminatory Expectations Subscale used to measure anti-White bias.

1. I believe that most Whites would love to return to a time when Blacks had no civil rights.
2. I believe that most Whites really do support the ideas and thoughts of racist political groups.
3. I believe that most Whites really believe that Blacks are genetically inferior.
4. I believe that most Whites would discriminate against Blacks if they could get away with it.
5. I believe that most of the negative actions of Whites towards Blacks are due to racist feelings.
6. I believe that most Whites would harm Blacks if they could get away with it.
7. I believe that most Whites think they are superior to Blacks.

BIOGRAPHICAL SKETCH

Erica C. Noles was born on October 29, 1981 in Gastonia, North Carolina. She graduated cum laude from the University of North Carolina at Wilmington in 2004 with a B. A. degree in psychology and a minor in English. She was a member of Psi Chi and Circle K, and spent a semester studying in Swansea, Wales. Ms. Noles entered into the graduate program in psychology in the fall of 2004 with a special interest in racism and prejudice. She has been published in *Sex Roles* and is a member of Phi Kappa Phi. Upon completion of her M. A. degree, she hopes to enter a doctoral program focused on social psychology and the terror management theory.