Terror Management Theory and Identity: 
The Effect of the 9/11 Terrorist Attacks on Anxiety and Identity Change

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Baumeister and Muraven (1996) reasoned that those who have a well-formed identity should express a greater amount of fear when faced with the prospect of their own death. In Study 1, terror management theory methodology was applied to test this hypothesis. The results show that individuals who were exploring their identity had greater identity exploration scores when reminded of their death in comparison to those who were not given such a reminder. In Study 2, the effects of the 9/11 terrorist attacks on identity and anxiety were examined using a terrorism salience approach. The results show that reminders of the terrorist attacks produced greater anxiety in those who were exploring their identity and less anxiety in those who were not exploring. Terrorism salience also produced greater identity commitment, especially in those who were exploring their identity.

All animals, including humans, struggle for survival. Although humans share this instinctual desire with other animals, we are also unique because we have the cognitive capacity to ponder our inevitable defeat in this struggle. Terror management theory (TMT; for a review, see Greenberg, Solomon, & Pyszczynski, 1997) has proposed that the realization that we will die can cause an immense amount of anxiety or terror; moreover, this terror must be managed so it does not interfere with day-to-day functioning. Both conscious and unconscious mechanisms that buffer or defend against this terror have been discovered. One unconscious mechanism is the adoption and support of a cultural worldview. A cultural worldview is defined

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as “humanly created and transmitted beliefs about the nature of reality shared by
groups and individuals” (Greenberg et al., 1997, p. 65). A cultural worldview
gives one’s life meaning and purpose, and people may often turn to their cultural
worldview when faced with the terror of their own death.

Research has shown that reminders of death produce more positive opinions re-
garding those who hold similar cultural worldviews and harsher judgements of
those who endorse competing cultural worldviews. For example, Greenberg,
Pyszczynski, Solomon, Simon, and Breus (1994) asked participants to describe
the emotions they felt when they pondered their own death, pondered the death of a
loved one, or watched television. Next they had participants rate pro-United States
and anti-United States essays. As predicted, those who pondered their own death
had a more favorable rating of the pro-United States essay and less favorable rat-
ing of the anti-United States essay. This phenomenon is referred to as cultural
worldview defense.

Another unconscious buffer against terror is self-esteem, or the belief that one is
achieving the prescribed standards of one’s cultural worldview (Pyszczynski,
Greenberg, & Solomon, 1999). Harmon-Jones et al. (1997) found that trait
self-esteem moderated the cultural worldview defense. Those with high trait
self-esteem do not exhibit the cultural worldview defense brought about by mort-
tality salience. Likewise, Greenberg et al. (1992) found that inducing an increase
in self-esteem—state self-esteem—through positive false feedback attenuated the
anxiety provoked by the contemplation of one’s own death.

Pyszczynski et al. (1999) suggested that there are both proximal and distal men-
tal defenses against the terror associated with death. The proximal defenses are
conscious, active, and rational. For example, when faced with reminders of death,
people may consciously distract themselves from such thoughts or remind them-
selves that they are fit and healthy. The distal defenses are unconscious, symbolic,
and experiential. The defense of one’s cultural worldview is an unconscious pro-
cess and therefore is a distal, and not a proximal, defense. Factors that produce
thoughts about death that are strong enough to resonate in the unconscious, but are
not too strong to become conscious, cause the mortality salience effects related to
the distal defenses. Subtle reminders of death, a period of distraction following
mortality salience, and an environment that facilitates “gut reactions” to ques-
tions, all have been found to produce greater cultural worldview defense after mor-
tality salience in comparison to strong and overt reminders, immediate cultural
worldview defense after mortality salience, and an atmosphere that produces ra-
tional thought.

IDENTITY AND DEATH

It is difficult to argue against the fact that death is one of the most universal and im-
portant aspects of life. However, the topic of death has been largely ignored by
identity researchers. In essence, death is the ultimate identity loss. Baumeister and Muraven (1996) stated that in the modern world with growing emphasis on the self, identity has increasing value. Côté’s (1996) idea of the importance of identity capital in the late modern world was based on a similar premise. Therefore, because death is the end of the highly valued self, death has become that much more terrifying. Given this possible relationship between identity and death, Baumeister and Muraven (1996) hypothesized that “adolescents who do have a well-formed identity should be more troubled by the thought of death and behave in ways to avoid and repress the idea of death” (p. 412).

Dunkel and Anthis (2001) used possible selves to test the hypothesis that an individual with a well-formed identity would express a greater fear of death. It was predicted that individuals who had high levels of identity commitment or identity exploration (or both) would generate a greater number of death-themed feared possible selves (e.g., death, terminal illness, a fatal accident). No support was found for this hypothesis. However, that examination of the identity–death hypothesis put forward by Baumeister and Muraven (1996) looked at fear at the conscious level. TMT argues that the fear of death is dealt with differently at the unconscious level. The study reported here is an attempt to test the relationship between identity and personal reactions to death at the unconscious level.

Identity formation can be seen as a process of (a) exploring worldviews, (b) adopting a worldview, and then (c) finding one’s place within that worldview. Erikson (1968) stated a similar position:

In psychological terms, identity formation employs a process of simultaneous reflection and observation, a process taking place on all levels of mental functioning, by which the individual judges himself in the light of what he perceives to be the way in which others judge him in comparison to a typology significant to them; while he judges their way of judging him in the light of how perceives himself in comparison to them and to types that have become relevant to him. This process is, luckily, and necessarily, for the most part unconscious except where inner conditions and outer circumstances combine to aggravate a painful, or elated, “identity-consciousness.” (pp. 22–23)

**Hypotheses**

From this perspective, identity commitment is the adoption of a worldview and finding one’s place within that view. Identity exploration is the exploration of possible worldviews and the examination of one’s personal roles within that worldview. Thus, mortality salience may lead to an increase in exploration in an attempt to find a worldview or an increase in commitment (or both) in an attempt to protect one’s identity as a proxy worldview defense. Baumeister and Muraven’s (1996) hypothesis allows for an even more specific prediction: If fear of death is most pronounced in those who have well-formed identities and such individuals work to avoid such fear, than the mortality salience effects should be most pro-
nounced in individuals who score high in the identity criteria of exploration and commitment. (The conceptualization of the exploration and commitment identity criteria in Marcia’s, 1966, identity status paradigm supports the view that those who score higher in the identity criteria have more well-formed identities.) That is, under mortality salience conditions, those who are already high in identity exploration will exhibit even greater exploration, and those already high in identity commitment will exhibit even greater commitment.

STUDY 1

Method

Participants. A total of 151 students from a Midwestern community college volunteered to take part in this study for extra credit in their psychology class. Fifty-eight of the participants were men, and 93 were women. The average age of the participants was 19.11 (SD = 1.65, range = 17 to 25). There were 127 Whites, 11 Blacks, 2 Hispanics, 4 Asian Americans, 3 individuals who indicated “other or mixed race,” and 4 who did not respond to the inquiry about ethnicity.

Measures. At Time 1 (T1) participants were given two measures to complete. One measure was the Ego Identity Process Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Geisinger, 1995). The EIPQ is a 32-item Likert-type scale. Sixteen items are devoted to measuring identity commitment and 16 to identity exploration. The EIPQ contains questions concerning occupation, values, family, friends, dating, gender roles, religion, and politics. The Cronbach alpha internal consistency of the commitment subscale for this sample was .74, and the internal consistency of the exploration subscale was .70. The second scale used in this study was the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). The RSE is a 10-item scale designed to measure global self-esteem. The internal consistency for the RSE was .86. At Time 2 (T2) the EIPQ was the only measure given to the participants. At T2 the EIPQ alpha was .79 for commitment and .74 for exploration.

Procedure. There were two data collection points in the study. At the first data collection point the participants completed the EIPQ and RSE in large groups in a classroom setting. The second data collection point was 6 weeks after the initial data collection and also occurred in a classroom setting. It was at this point that the mortality salience manipulation was introduced.

Participants were randomly assigned to one of two conditions. Research packets were systematically collated so that the experimental and control readings were placed one right after another in a large pile and then simple random assignment was achieved by handing them out in a classroom setting. In the
mortality salience condition the participants read a one-page description of the Kubler–Ross theory on the stages on dealing with one’s own death taken from an undergraduate life-span psychology textbook (Berger, 1998, pp. E3–E4). They were then asked to list the Kubler–Ross stages. This was done to check that they had actually read the description. All participants in this condition correctly listed the answer. Next, they were given a long multiplication math problem. This was done as a filler in between the mortality salience and the final task. A filler task after the mortality salience is more likely to produce the distal, and not proximal, defenses (Pyszczynski et al., 1999). The final task was the completion of the EIPQ.

In the nonmortality salience condition the procedure was the same except for the reading and the subsequent question. Instead of the Kubler–Ross stages, the reading, which was again taken from the Berger (1998, p. 228) lifespan textbook, addressed the changes that occur in the central nervous system as a child develops. After the reading, participants in the nonmortality salience condition were asked to list three changes that occur in the central nervous system.

Analyses Plan. The analyses were designed to see if variation in EIPQ scores at T2 were partially accounted for by an interaction between EIPQ Scores at T1 × Mortality Salience Experimental Manipulation.

Using the commitment and exploration scores from T1, the participants were categorized into groups using the subscale medians (commitment = 62.0, exploration = 66.5) listed for classification purposes in Balistreri et al. (1995). This resulted in two commitment (high vs. low) and two exploration (high vs. low) categories. A total of 127 out of the original 151 participants took part in T2. Seventy-one participants were in the low commitment group, and 56 were in the high commitment group. Ninety participants were in the low exploration group, and 37 were in the high exploration group.

The T1 identity classifications and the experimental manipulation were used as factors in two analyses of variance (ANOVAs). In the first ANOVA the factors were used to estimate identity commitment at T2. In the second ANOVA the factors were used to estimate identity exploration at T2.

Because self-esteem has been found to moderate the mortality salience effects (Harmon-Jones et al., 1997), when the initial analysis result was significant, a follow-up analysis was performed with the RSE scores from T1 acting as a covariate. The means and standard deviations on the measures can be seen in Table 1.

Results

Identity Commitment. A 2 (T1 commitment: high vs. low) × 2 (T1 exploration: high vs. low) × 2 (T2 reading: mortality salience vs. control) factorial ANOVA with commitment scores at T2 as the dependent variable was performed. There was a significant main effect for commitment, \( F(1, 119) = 36.02, p < .001 \). The
high commitment group from T1 had higher commitment scores at T2. No other main effects or interactions were significant.

Identity Exploration. A 2 (T1 commitment: high vs. low) × 2 (T1 exploration: high vs. low) × 2 (T2 reading: mortality salience vs. control) ANOVA with exploration scores at T2 as the dependent variable was performed. As predicted, there was a significant Exploration × Reading interaction, $F(1, 119) = 5.42, p < .05$. The results of simple effects analysis and pairwise comparisons used to decipher the interaction showed a main effect: Both of the high exploration groups scored higher on exploration at T2 than the low exploration groups. The post hoc analyses also support the exploration–mortality salience hypothesis. As seen in Table 2, the high exploration group under mortality salience had greater exploration scores than the high exploration group, which did not experience mortality salience.

However, the assumption of homogeneity of variance was violated. Therefore, the T2 exploration scores for the high exploration–mortality salience group and the high exploration–control groups were examined directly. Results show a significant difference between the high exploration groups, $t(35) = 2.23, p < .05$.

Because the expected interaction was found to be significant, a follow-up analysis was performed with the inclusion of RSE scores from T1 as a covariate. The results remained the same in the follow-up analysis. The Exploration × Reading interaction remained significant, $F(1, 118) = 5.22, p < .05$.

### TABLE 1

Means and Standard Deviations for the Ego Identity Process Questionnaire (EIPQ), Rosenberg Self-Esteem Scale (RSE), and Affect Adjective Check List (AACL)

<table>
<thead>
<tr>
<th>Measure</th>
<th>$M$</th>
<th>$SD$</th>
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<tbody>
<tr>
<td>EIPQ exploration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>61.81</td>
<td>9.75</td>
</tr>
<tr>
<td>Time 2</td>
<td>61.61</td>
<td>9.70</td>
</tr>
<tr>
<td>Time 3</td>
<td>61.02</td>
<td>9.61</td>
</tr>
<tr>
<td>EIPQ commitment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>63.72</td>
<td>10.39</td>
</tr>
<tr>
<td>Time 2</td>
<td>65.25</td>
<td>10.40</td>
</tr>
<tr>
<td>Time 3</td>
<td>64.53</td>
<td>11.53</td>
</tr>
<tr>
<td>RSE</td>
<td>30.90</td>
<td>4.56</td>
</tr>
<tr>
<td>AACL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxious</td>
<td>15.25</td>
<td>4.52</td>
</tr>
<tr>
<td>Calm</td>
<td>27.38</td>
<td>5.53</td>
</tr>
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$a_n=151$. $b_n=131$. $c_n=109$.
**Discussion**

TMT provides evidence that subtle reminders of death lead to cultural worldview defense. If identity exploration is, at least in part, the search for a meaningful worldview, then reminders of death should increase the exploration for a worldview. Baumeister and Muraven (1996) proposed that fear of death would be most pronounced in individuals with well-formed identities. Thus, mortality salience effects (in this case, increased exploration) should be more pronounced in individuals who are already exploring. The results support this hypothesis. Comparing two groups who had previously scored high on identity exploration, those in the mortality salience condition scored higher in a subsequent measure of identity exploration than those in the control condition.

However, two expected results were not found. First, it was predicted that mortality salience should also result in greater commitment for those who are committed. No significant difference on commitment scores was found between the mortality salience and control groups.

Why does mortality salience affect exploration, but not commitment? Some possible answers can be found in the identity literature. Identity exploration has been referred to as the “work” of identity formation (Grotevant, 1987). Mortality salience could prompt identity work in those who are already engaged in identity work. Differences in processing orientations may also play a role. Berzonsky (1989) demonstrated that individuals who exhibit identity exploration process information in a unique manner—they seek out and actively evaluate self-relevant information. Mortality salience may only affect those who actively engage in thinking about the self. Both of these possibilities are directions for future research.

Second, self-esteem did not moderate the mortality salience effect. This could be due to the difference in dependent measures. In previous research, it was found that self-esteem moderated both the anxiety produced by mortality salience and cultural worldview defense (Greenberg et al., 1992; Harmon-Jones et al., 1997). Although the similarity of a person’s cultural worldview and their identity was pointed out previously, identity exploration is distinct from cultural worldview defense. Self-esteem may not moderate the mortality effects on identity exploration.

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**TABLE 2**

Means and Standard Deviations of Identity Exploration at Time 2 by Identity Exploration at Time 1 and Mortality Salience

<table>
<thead>
<tr>
<th>Mortality Salience</th>
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<tbody>
<tr>
<td></td>
<td>High</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Yes</td>
<td>73.12</td>
<td>(5.28)</td>
<td>57.25</td>
</tr>
<tr>
<td>No</td>
<td>68.75</td>
<td>(6.44)</td>
<td>58.76</td>
</tr>
</tbody>
</table>
Additional Discussion Related to the Terrorist Attacks of 9/11. The initial wave of data in Study 1 was collected in late August 2001, and the second wave was collected in the second week of October 2001. In between these two times, the 9/11 World Trade Center terrorist attacks occurred in the United States—the country in which this research was conducted. This may have had an impact on the results of Study 1.

Although the natural progression of the research program would have led in a different direction, the events of 9/11 and the subsequent mailings of the anthrax virus provoked a change in the path of the research. Such nonnormative life events as the terrorist attacks can have far-reaching psychological effects. For this reason, Study 2 uses TMT methodology to examine the possible effects the terrorist attacks had on identity and the role identity plays in dealing with the attacks.

To examine the effects of terrorist attacks on identity, research had to be conducted in a timely manner. Therefore, the same population of participants in Study 1 was used in Study 2.

STUDY 2

“College students are supposed to be finding their place in the world, not just a profession but also an intellectual framework for learning and understanding their lives. After the terrorist attacks, that goal seems more urgent and yet more elusive than ever” (Kantrowitz & Naughton, 2001, p. 48).

This quotation from Newsweek magazine frames the identity dilemma facing older adolescents and young adults after 9/11. The formation of a worldview may seem even more important and pressing but also more difficult. However, following the results of Study 1, it was thought that the impact of the terrorist attacks, as a reminder of death, would have a differential impact on individuals based on where they stood in the developmental process of finding an intellectual framework (identity). The purpose of Study 2 was to examine these possible differential effects.

Study 1 suggests that mortality salience effects are moderated by and affect identity exploration. Individuals high in identity exploration appear to be affected by reminders of death by increasing or continuing their search for a worldview. Given the results of Study 1, it is predicted that the terrorist attacks would have a greater negative impact on those who are actively exploring their identity options. What would these effects be? Study 1 indicates that one effect could be continued or increased exploration. TMT research also indicates that anxiety increases under mortality salience conditions (Greenberg et al., 1992). Thus, those who are exploring should also exhibit greater anxiety as a result of the recent terrorist attacks.

No significant findings occurred in Study 1 for the identity dimension of commitment. However, terrorism salience is different from mortality salience and therefore could have an impact on commitment. Many media outlets reported that disdain for
Western culture motivated the terrorists. Thus, terrorism not only threatens one’s life, but it could also be seen as an attack on both one’s world and one’s cultural worldview. This combination of mortality salience and the challenge to one’s cultural worldview could produce unique results. One possibility is that identity commitment could act as a proxy for cultural worldview defense and thus should increase when individuals are reminded of the terrorist attacks.

Method

Participants. The participant population consisted of the same individuals from Study 1. A total of 109 of the 151 original participants took part in Time 3 (T3) data collection. Forty-nine participants were in the high commitment group, and 60 were in the low commitment group. Thirty-one participants were in the high exploration group, and 78 were in the low exploration group. One participant completed the EIPQ but not a measure of anxiety that was used at T3. That participant’s data were included in the analyses of the identity criteria but not the analyses of anxiety.

Measures. The EIPQ scores (identity criteria classifications) and RSE scores from T1 were utilized again. A third wave of data (T3) was collected at the beginning of December, 2001, roughly 6 weeks after the T2 data were collected. At T3, the EIPQ and a modified version of the Affect Adjective Check List (AACL; Zuckerman, 1960) were utilized.

The AACL consists of 21 adjectives with either anxious (e.g., tense) or calm connotations (e.g., happy). The original AACL was in the form of a checklist. The modification changed it to a 4-point Likert-type scale used to rate how the participant feels (1 = not at all, 4 = a great deal). The modification was used by Greenberg et al. (1992) in their examination of mortality salience effects. Alpha for the anxiety portion of the AACL was .86 and alpha for the calm portion was .88. The alpha for the EIPQ commitment at T3 was .84 and for exploration the alpha was .74.

Procedure. The procedure for T3 followed the same pattern as the T2 procedure. At T3 data collection, which took place in a classroom setting, there was an experimental and control condition. The experimental condition was designed to follow the mortality salience procedures. The participants in the experimental condition received a packet that included (in order) the following: vignette about the terrorist attacks, filler or distractor consisting of opinion questions about a new abstract sculpture on campus, AACL, and EIPQ. The control condition received the same packet in the same order, except that the topic of the vignette concerned basketball player Michael Jordan’s return to professional basketball. All participants were instructed to give their “gut” response to the questions.
**Analysis Plan.** The analyses were designed to see if variation in EIPQ scores at T3 and in AACL scores at T3 were partially accounted for by an interaction between EIPQ Scores at T1 × Experimental Manipulation.

The T1 identity criteria classifications and the experimental manipulation were used as factors in a multivariate analysis of variance (MANOVA) to estimate the discriminant function composed of the AACL calm and anxious scores.

The T1 identity criteria classifications and the experimental manipulation were used as factors in two ANOVAs. In the first ANOVA the factors were used to estimate identity commitment at T3. In the second ANOVA the factors were used to estimate identity exploration at T3. As in Study 1, significant results were followed by the inclusion of the T1 RSE scores as a covariate in a follow-up analysis. The means and standard deviations for these measures can be seen in Table 1.

**Results**

**Anxiety.** A 2 (T1 commitment: high vs. low) × 2 (T1 exploration: high vs. low) × 2 (T3 reading: terrorism salience vs. control) MANOVA was performed with calm and anxious scores from the AACL as the dependent variables. There was a significant Exploration × Reading interaction, $F(2, 99) = 4.94, p < .01$. No other main effect or interaction was significant.

Univariate analyses show that there were significant differences for the anxious, $F(1, 100) = 9.56, p < .005$, but not the calm subscale. An analysis of the simple main effects and pairwise comparisons, as seen in Table 3, show that for those high in identity exploration, the terrorism salience condition produced more anxiety in comparison to both the low exploration group in the terrorism salience condition and the high identity exploration group in the control condition. For the low exploration group, the control condition was actually associated with greater anxiety in comparison to the low exploration group in the terrorism salience condition.

**TABLE 3**

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<th>Mortality Salience</th>
<th>Exploration</th>
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<tbody>
<tr>
<td></td>
<td>High M SD</td>
<td>Low M SD</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17.82 (5.80)</td>
<td>13.81 (3.05)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>13.71 (3.95)</td>
<td>16.13 (4.70)</td>
<td></td>
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</table>

1In Zuckerman (1960) the anxiety scores for the Affect Adjective Check List were the difference between the number of anxious–calm adjectives checked. The scales were kept separate in this study because of the modification to the scale and the desire to examine the calm and anxious scores separately. Using the difference score, a significant Exploration × Reading effect was still found, $F(1, 100) = 4.59, p < .05$. 
A follow-up analysis of covariance (ANCOVA) was performed with the addition of T1 RSE scores as a covariate. The results show that self-esteem was negatively associated with anxiety, $F(1, 99) = 7.31, p < .01$, but none of the prior results changed.

**Identity Exploration.** A 2 (T1 commitment: high vs. low) × 2 (T1 exploration: high vs. low) × 2 (T3 reading: terrorism salience vs. control) ANOVA with identity exploration scores as the dependent variable was performed. There was a main effect for exploration, $F(1, 101) = 40.01, p < .001$. Those in the high exploration group had higher exploration scores. No other main effect or interaction was significant.

**Identity Commitment.** A 2 (T1 commitment: high vs. low) × 2 (T1 exploration: high vs. low) × 2 (T3 reading: terrorism salience vs. control) ANOVA with identity commitment scores as the dependent variable was performed. As seen in Table 4, there was a significant Exploration × Reading interaction, $F(1, 101) = 4.05, p < .05$. The analysis of the simple effects and pairwise comparisons show that for the high exploration group, commitment was higher under terrorism salience in comparison to the high exploration group in the control condition. The analyses also show that in the control condition, the high exploration group had lower commitment scores than the low exploration group.

However, the homogeneity of variance assumption was violated. Therefore, a direct test of the high exploration groups was performed. The results show a significant difference in commitment at T3 between the terrorism salience and control condition, $t(29) = 2.05, p < .05$, for the high exploration groups.

A follow-up ANCOVA was performed with the addition of T1 self-esteem scores as a covariate. The results show that self-esteem scores were negatively associated with commitment, $F(1, 100) = 5.16, p < .05$, but none of the prior results changed.

**Discussion**

Terrorism salience is different from mortality salience. Terrorism salience should not only produce the reminder of mortality, but may also lead to a feeling that one’s

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</tr>
<tr>
<td>No</td>
<td>57.93</td>
<td>(9.67)</td>
<td>64.13</td>
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**TABLE 4**

Means and Standard Deviations of Commitment by Terrorism Salience and Identity Exploration at Time 1
world and one’s cultural worldview are under attack. Thus, similarities and differences should emerge when comparing the effects of mortality salience to those of terrorism salience.

As expected, those who scored high in identity exploration at T1 exhibited more anxiety under the terrorism salience condition. This finding is compatible with Baumeister and Muraven’s (1996) hypothesis that fear of death would be most pronounced in individuals with well-formed identities and is also consistent with the findings of Study 1. Although not found in the study reported here, those high in identity exploration tend to be more anxious (Kidwell, Dunham, Bacho, Pastorino, & Portes, 1995). This baseline level of uneasiness may cause adolescents who are exploring their identity options to be especially vulnerable to anxiety arising from the terrorist attacks.

Unexpectedly, those who scored low in identity exploration at T1 exhibited more anxiety in the control condition. Why would individuals feel greater anxiety when reading about Michael Jordan’s return to professional basketball compared to reading about recent terrorists attacks and how they are at personal risk?

One possible explanation for this counterintuitive finding is the information processing orientations (Berzonsky, 1989) associated with identity exploration. Individuals who score low on measures of identity exploration are likely to fall into either a normative or a diffuse information processing style. The normative style is defined by rigid, dogmatic thinking (Berzonsky, 1993) in which conformity to authority is stressed. The diffuse style is defined by ad hoc thinking in which the person follows the situational demands for cues on the proper behavioral actions and opinions.

To the vast majority of U.S. citizens, the attacks were repugnant and representative of evil. The lack of ambiguity surrounding the issue lends itself to the normative or diffuse information processing styles seen in those with low amounts of exploration (Berzonsky, 1989). There was an action that was seen as clearly wrong and was condemned by those in, and those not in, authority positions. Rarely are the cues presented in the environment so strong. This allows those with normative and diffuse orientations easy access to others’ views and therefore may lower their anxiety over forming their own point of view.

Those with low exploration are also more likely to be reasoning about moral issues at the preconventional or conventional level (Podd, 1972) than those who score high in exploration. The issue of the terrorist attacks lends itself to “black and white” conventional reasoning. The attacks may reinforce conventional or preconventional reasoning and bring into question postconventional reasoning.

Another possibility centers around the increase in group cohesion in times of national crises. This cohesion may reinforce prior identity affiliations or allow for the gleaning of identity from group affiliation. Psychologists have predicted that suicide rates will drop in the months following the attack as a sense of belonging and common purpose is felt (“Reactions from Psychological Scientists,” 2001). These feelings of inclusion may also raise self-esteem (Leary, Tambor, Terdal, &
Downs, 1995). Research has shown that those low in identity exploration are less autonomous (Marcia, 1980), and therefore individuals with less-formed identities may be especially susceptible to such group influences.

The terrorism salience condition produced higher commitment scores compared to the control condition. This main effect was qualified by a significant Exploration × Reading interaction in which those in the high exploration group exposed to terrorism salience were found to have greater commitment scores compared to the high exploration group in the control condition. No significant results were found for the criteria of exploration.

It is thought that terrorism salience contains not only a reminder of one’s mortality, but also an assault on one’s world. Such an assault may trigger the need for those who are engaged in identity exploration to adopt some commitments. The terrorist attacks also made differing cultural worldviews more salient. Although those engaged in exploration may have been searching for a specific worldview, the scope of their search is most likely bound by the larger Western civilization. That is, worldviews include both broad and more precise levels. For example, belief in the rule of law is a broad belief from which a belief in democracy can evolve and so forth, on down to the specific beliefs on individual issues. Before 9/11, identity concerns were primarily between choices framed within Western cultural views. The terrorist attacks caused individuals to assert their commitments to basic Western cultural beliefs and values (e.g., civil rights and democracy).

The rhetoric of the two major political parties in the United States, away from stressing differences on specific issues to speech reaffirming the basic core beliefs that they share, is an example of this switch in focus. Thus, identity commitment meant something different subsequent to the terrorist attacks. Those in the high exploration group may still be open to new experiences (Tesch & Cameron, 1987) and searching at the molecular level, but they have affirmed their commitments, and Western cultural values, at the molar level. Indeed, a survey of differences in the EIPQ content areas found items measuring commitment to values accounted for more of the difference between the high exploration groups than any other content area. As seen in Table 4, there was a 7.45-point difference in commitment between the high exploration experimental and high exploration control groups on commitment at T3. Twenty-three percent or 1.72 of the point difference was due to differences on the two items measuring values.

CONCLUSIONS

Study 1 was an attempt to examine identity from a TMT perspective. The results show that mortality salience had an impact on identity. For those who were exploring, exploration was higher under mortality salience compared to the control condition. These results suggest that mortality salience causes a continued or increased search for a worldview in those who are already engaged in such a search.
The events of 9/11 had a profound impact on the entire American population and occurred in the midst of Study 1. Given the gravity of the events, a change in the focus of the research seemed warranted. However, the results of Study 1 suggest that further research connecting TMT to identity will be fruitful. For example, identity may serve as a moderator in the use of cultural worldview defense under mortality salience conditions. Individuals high in authoritarianism have been found to be more likely to use the cultural worldview defense (Greenberg et al., 1990). The foreclosure identity status and normative identity style have also been associated with authoritarianism and therefore may also be associated with the use of the cultural worldview defense.

The results of Study 2 indicate that late adolescents may have been differentially affected by the attacks. Those who were exploring showed more anxiety under terrorism salience, and those who were not showed diminished anxiety. The results also show that terrorism salience had an impact on the identity processes. Terrorism salience caused greater commitment in the high exploration group. Whether this commitment reflects an assertion of basic beliefs could be addressed in future research.

It has been proposed that global conflicts in the 21st century will not center around monetary, territorial, or ideological issues (Huntington, 1996), but that issues of identity will be at the root of frictions. Thus, continued research on the relationship between identity, as both a cause and effect, and terrorism could be an important area of research.

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REFERENCES


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