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Death, quest, and self-esteem: re-examining the role of self-esteem and religion following mortality salience

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ABSTRACT
Terror management theory suggests that when mortality concerns are salient, religion can serve as a defence in order to boost self-esteem and shield against the potential for anxiety. The current study examined whether individual differences in religious orientation (i.e., quest) interacted with reminders of death to influence well-being. To the extent that religiosity buffers against mortality awareness on defensiveness, the present results demonstrated that individuals high in quest orientation, in comparison to low-quest-orientated individuals, reported lower well-being (i.e., self-esteem) following reminders of death. These results add to the existing body of literature suggesting that thoughts of death can serve to decrease well-being, but that this effect is influenced by individual differences, namely trait quest religiosity.

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Across the globe, many religions offer the promise of attaining a glorious existence after death if believers perceive they have adhered to the basic tenets of their religion. In a closer examination of these afterlife beliefs, it appears as though death would be welcomed at any time in order to attain this immortal, perfect existence and to be (re)united with the Creator(s). This suggestion is strengthened considering that afterlife beliefs are present in many religions (Burkert, 1996). The attainment of eternal salvation after death appears to be an important goal of individuals embedded in a particular religious tradition. Within a terror management theory (TMT) framework (Greenberg, Pyszczynski, & Solomon, 1986), religion can function as a cultural defence mechanism to alleviate existential terror associated with the awareness of death. By bolstering integral beliefs inherent within the religion, believers may shield against threats to their eternal existence. Interestingly, previous work suggests that religious affirmation is required in order to successfully utilize religion as a defence against mortality salience (Jonas & Fischer, 2006). Additionally, other research has found that mortality salience has the potential to decrease well-being (Abeyta, Juhl, & Routledge, 2014; Routledge & Juhl, 2010); however, these detrimental effects were influenced by other factors (i.e., meaning in life, Routledge & Juhl, 2010). Given this research, the current study attempts to examine how individual differences in religiosity (namely quest religiosity) influence the detrimental effects of mortality salience.

Terror management and religion

Much of TMT is based on the works of Becker (1973) who argued that humanity’s need to be a “hero” causes us to seek out ways in which we can effectively boost our self-esteem. Becker suggested
that due to the development of our higher-order thought, we are able to contemplate scenarios and situations that we have not yet experienced, in which we are able to understand that we are mortal and will eventually cease to exist (see also Bering, 2006). From a TMT perspective, this understanding of our impending doom and mortality facilitated the development of what anthropologists have termed the “cultural niche” (cf., Boyd, Richerson, & Henrich, 2011). Gradually, over many generations, humans accumulated sets of rules, tenets, and guidelines that could be followed, and as a result, an ability to boost self-worth. By boosting our self-esteem, we can shield against the ultimate threat to earthly existence (death) and achieve a degree of symbolic (or literal) immortality because we are socialized to believe that punishments primarily occur among those who deserve them (i.e., the just-world fallacy), in this case, someone that is not upholding the cultural values (Greenberg et al., 1986). From this understanding of the development of culture, the need for self-esteem is a fundamental human need, because it serves as a buffer against the ever-looming threat of death and non-existence.

Although secular concepts may be used to boost self-worth and shield against mortality concerns, research suggests that religion may serve as a particularly powerful shield due to the promise of both symbolic and literal immortality (see Harding, Flannelly, Weaver, & Costa, 2005; Jong & Halberstadt, 2016; Jong, Halberstadt, & Bluemke, 2012; Vail et al., 2010; van den Bos et al., 2012). By identifying as a member of a cultural religious group that will live on past any individual member, believers may attain a degree of symbolic immortality in knowing that even though they will die, the group and their beliefs and values will live on (Vail et al., 2010). Further, unlike other cultural defence mechanisms, religions are unique in that they typically offer promises of a literal afterlife. By internalizing religious beliefs, followers may be more accepting of death and less anxious about what follows (Harding et al., 2005) and more confident that they will live eternally (van den Bos et al., 2012).

Much of the power behind religious beliefs serving as a defence mechanism may be due to the unique promise of a literal afterlife, which religions offer in a coherent and widely accepted package. Although symbolic immortality (culture, politics, children, etc.) is effective at alleviating mortality concerns (Baumeister, 1991; Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994; Greenberg, Solomon, & Arndt, 2008), a growing body of research suggests that literal immortality is also effective at alleviating the awareness of death. Because religious beliefs in general (Baumard & Boyer, 2013) and afterlife beliefs in particular (Vail et al., 2010) cannot be disproved using the tools of science, they are ultimately unfalsifiable, allowing them to persist when traditional, secular worldviews are discredited. For example, Dechesne et al. (2003) found that following death awareness, “evidence” of an afterlife decreased the need to bolster self-esteem, suggesting that afterlife beliefs are a viable defence strategy to combat existential terror.

Additional research involving TMT and religion suggests that reminders of death cause believers to become more anxious following irreverent usage of traditionally religious items (i.e., a crucifix; Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995). This idea is consistent with TMT in which we cling to and defend deeply cherished beliefs following mortality salience (Greenberg et al., 1986), suggesting that religious beliefs may be deeply internalized for many followers. Further, following thoughts of death, there is evidence to suggest that religious concepts are more easily accessible, even among the non-religious (Jong et al., 2012). Of primary importance to the current study, Jonas and Fischer (2006) found that state levels of self-esteem correlated negatively with intrinsic religiosity, but that self-esteem did not mediate the interaction between intrinsic religiosity and mortality salience to influence the accessibility of death-related thoughts. Specifically, those who were high in intrinsic religiosity and made aware of their death reported fewer mortality concerns regardless of self-esteem (study 3). Intrinsic belief also led to less worldview defence following mortality salience (study 2). However, these effects did require intrinsic individuals to affirm their beliefs prior to the manipulation in both studies. This effect is curious considering that heightened self-esteem can serve as a meaningful defence against mortality concerns and that worldview defence
has the potential to operate by boosting feelings of self-worth (see Greenberg et al., 1986; Greenberg et al., 1995; see Burke, Martens, & Faucher, 2010 for a review).

Perhaps, however, self-esteem plays a more nuanced role within religious defences. As Jonas and Fischer (2006) suggest, their results should not be due to self-esteem differences inherent to different religious orientations. Although religion does offer promises of a literal afterlife that can allow for death transcendence (van den Bos et al., 2012), religion should also operate similar to other worldview defences by offering promises of symbolic immortality (Vail et al., 2010). Just as culture provides the rules, tenets, and beliefs that can be followed to provide meaning (Greenberg et al., 1986), so too does religion. Thus, religion literally is culture (Sperber & Hirschfeld, 2004). With this in mind, the following study expands upon the findings by various researchers within TMT and religion, but specifically, explores individual differences within quest religious orientation. Although Jonas and Fischer (2006) did not find that self-esteem mediated these effects, we argue that the observed self-esteem effect is still meaningful within TMT literature due to the need for self-worth following mortality salience (Greenberg et al., 1986). Within the TMT framework, it is apparent that certain individual differences may nuance the manifestation of religious worldviews (i.e., religiosity). Additionally, a considerable amount of research has revealed individual differences in association with differing religious orientations (Allport & Ross, 1967; Arrowood, Pope, & Harlow, 2014; Batson, Schoenrade, & Ventis, 1993; Hills, Francis, & Robbins, 2005; Watson, Chen, Ghorbani, & Vartanian, 2015; Watson, Morris, & Hood, 1990). Allport and Ross (1967), for instance, found marked differences between intrinsic and extrinsic religiosity in which those who are intrinsically religious internalize their beliefs, as opposed to those who are extrinsically religious who are devout for other more utilitarian reasons. An examination of quest religiosity, however, may yield insight on the pursuit of self-esteem following mortality salience.

We specifically chose quest over intrinsic and extrinsic religiosity for several reasons. First, as noted by Jonas and Fischer (2006), extrinsic religiosity should not provide any buffer against mortality concerns because the belief is not fully internalized. Allport and Ross (1967) suggest that extrinsic individuals hold religious belief for some external purpose that is not associated with an internalized belief, in which these people should not be able to affirm religious belief as successfully as other orientations. Second, intrinsic religiosity is able to buffer mortality concerns without the need for additional worldview defences so long as that belief is affirmed prior to mortality salience. Thus, as Jonas and Fischer (2006) noted, additional self-esteem boosts were unnecessary following intrinsic affirmation. Third, and most importantly, quest religiosity provides an interesting avenue of research within the terror management domain. Quest orientation was specifically chosen in the current research due to its “questioning” nature (Batson, 1976). Quest individuals continually question many of the fundamental truths within their belief and ultimately understand and accept that they will most likely not ever truly receive an answer to these questions. Hills et al. (2005) note that those who are quest oriented contend with their doubts self-critically such that these doubts serve as a way to grow within their faith. Thus, we selected quest religiosity to examine the effects of mortality salience on state self-esteem. Given that high quest individuals view their belief systems as being speculative and are hesitant to hold very strong religious convictions (Batson & Schoenrade, 1991a, 1991b), they may respond to reminders of death with lower well-being. For example, previous research has found that high quest persons report greater concerns about death and are less likely to search for meaning in life following threats to their religious worldview (Von Tongeren, Davis, Hook, & Davis, 2016; also see Van Tongeren & Green, 2010 for similar findings). This suggests that high quest individuals should experience lower self-esteem following mortality salience because they are uncertain about the validity of their beliefs. Thus, we hypothesized that participants with high levels of quest religiosity should respond to mortality salience with decreased self-esteem due to their uncertainty that the beliefs are correct.
Method

Participants

Participants were recruited from a large undergraduate participant pool at a medium-sized public university in the southeastern United States. Overall, 95 participants (81 female) were included in the experiment for partial class credit. Participants were largely Caucasian (71%), as well as African American (14%), Asian (3%), Hispanic/Latino (3%), and other (9%). Additionally, participants were largely Christian (56.8%), followed by atheist/agnostic/no religion (24.2%), and other (19%).\(^1\) Given that Burke et al. (2010) found that TMT has the potential to induce rather large effects, the current study had sufficient power to test the proposed hypothesis.

Materials and procedure

Prior to any experimental manipulation, participants were told that the study was examining personality variables and attitudes during unpleasant situations so as not to prematurely or unintentionally prime them to think about death. Following informed consent, individuals were randomly assigned either to write about their death or dental pain. Participants in the death condition were asked to respond to two questions about their mortality (“Please briefly describe in a paragraph or two the emotions that the thought of your own death arouses in you” and “Jot down, in a paragraph or two, what you think happens to YOU as you physically die and once you are physically dead”; Greenberg et al.,\(^1\) 1994). Individuals in the control condition were given similar questions that substituted the death-related words with “dental pain.” Following each prime, participants completed the Remote Associated Test (Smith, Huber, & Vul,\(^2\) 2013) as a neutral distractor task for exactly 5 min, as Pyszczynski, Greenberg, and Solomon (1999) argue that TMT effects are largest following a short delay. Following the distractor task, participants completed the Current Thoughts Scale (e.g., “I feel confident about my abilities”; Heatherton & Polivy,\(^3\) 1991) to assess self-reported self-esteem (Cronbach’s \(\alpha = 0.93\)). Finally, persons completed the Religious Life Inventory (e.g., “I try hard to carry my religion over into all my other dealings in life”; Batson & Schoenrade,\(^4\) 1991b) to assess individual differences in quest religious orientation (Cronbach’s \(\alpha = 0.72\)). This inventory was presented last so that it would not unintentionally prime thoughts of religiosity. As Jonas and Fischer (2006) noted, completing a religious survey prior to the death prime allows participants to affirm their religious beliefs. Following this final measure, participants were thanked and debriefed.

Results

Given that quest religiosity served as a moderator in this study, an independent-samples \(t\)-test was conducted to examine any changes in religiosity that may have been due to the death manipulation. The results of the \(t\)-test revealed that mortality salience did not significantly influence quest religiosity scores, \(t(1,92.39) = 0.04, p = 0.97\). This suggests that quest religiosity was not bolstered to combat mortality salience.\(^2\)

In order to analyse the interaction between quest religiosity and mortality salience, interaction variables were created by multiplying quest scores with experimental condition. For each analysis, mortality salience (dummy coded) and quest religiosity (centred) were entered simultaneously as predictors in the first step, followed by the two-way interaction in the second step (see Aiken & West,\(^5\) 1991). A multiple regression was conducted by entering quest religiosity scores and experimental condition into step 1 and their interaction scores into step 2. The results of this analysis failed to find a significant main effect of quest religiosity \((p = 0.20)\) or mortality salience \((p = 0.92)\). The results did, however, reveal a significant interaction between quest religiosity and mortality salience on self-esteem, \(b = -0.55 (SE = 0.26), t = 2.08, p = 0.04\) (see Figure 1). Within the
death condition, participants who were lower in quest religiosity reported more state self-esteem than those with high quest religiosity, $b = -0.46$ ($SE = 0.19$), $t = 2.25$, $p = 0.02$. Within the control condition, however, participants did not differ in state self-esteem scores as a function of quest religiosity, $b = 0.09$ ($SE = 0.18$), $t = 0.48$, $p = 0.64$. Additionally, there were no significant differences in state self-esteem at 1 SD above the mean for quest religiosity, $b = -0.49$ ($SE = 0.32$), $t = 1.55$, $p = 0.12$; nor were there any significant differences in state self-esteem at $-1$ SD below the mean for quest religiosity, $b = 0.44$ ($SE = 0.32$), $t = 1.40$, $p = 0.17$.

Following previous research (e.g., Vess, Arndt, Cox, Routledge, & Goldenberg, 2009), interaction terms were also calculated at 2 SD above and below the mean of quest. Not only does this provide comparison levels that approximate 95% confidence levels (Jaccard & Turrisi, 2003), but it is conceptually important to examine mortality salience effects at especially high and low levels of quest (see also Vess et al., 2009). The results of this analysis revealed that participants with especially low levels of quest religiosity had significantly higher self-esteem than those with high levels of quest religiosity when mortality was salient, $b = 3.09$ ($SE = 1.51$), $t = 2.04$, $p = 0.04$. Additionally, the results revealed that participants with especially high levels of quest religiosity had marginally significant lower self-esteem when mortality was salient, $b = 1.22$ ($SE = 0.64$), $t = 1.91$, $p = 0.06$. Taken together, these results suggest that participants who are high in quest religiosity respond to mortality salience with decreased self-esteem.

**Discussion**

The present study found that persons scoring higher on quest religiosity responded to reminders of death with decreased well-being. According to TMT, worldviews operate by bolstering self-esteem in order to shield against mortality concerns (Greenberg et al., 1986). The decrease in self-esteem observed by the high quest participants in the current experiment was likely due to their uncertainty within their beliefs. Participants who are high in quest religiosity are less certain that their beliefs are correct (Batson & Schoenrade, 1991a, 1991b) and are unable to use these beliefs to bolster their self-worth. Because of these doubts, the beliefs fail to manifest as a reliable way to combat existential terror and boost self-esteem. This interpretation gains further support considering that the simple effects were only found in the mortality salient condition.

Additionally, this effect was observed without unintentionally causing quest to be bolstered as a defence due to the mortality prime. Thus, it appears that only individual differences in trait quest religiosity and not state quest religiosity as a defence interacted with mortality salience to influence self-esteem. This distinction suggests it is primarily firmly held, unwavering religious beliefs that can function to prevent self-esteem loss following mortality salience. When questions and doubts are
tacitly incorporated into a religious outlook, mortality salience actually decreases self-esteem. This interpretation is intuitive considering the predominantly Judaeo-Christian sample. Both biblical teachings and psychological research (i.e., Spilka, Shaver, & Kirkpatrick, 1985) suggest that religion should serve as a way to bolster self-esteem. Specifically, religion serves as a reminder that one is loved and cared for regardless of other factors (achievement, ability, etc.); however, when these beliefs are questioned – even as a part of one’s faith – their functional value decreases following mortality salience, likely causing a temporary decrease in well-being.

Finally, one additional interpretation could be that the death prime served instead as a religious prime. Many participants in our study responded to the death prime with vivid religious accounts and may not have differed from other participants who were just asked about religion. Perhaps all individuals high in quest religiosity will express decreased self-esteem when primed with religion. Jong et al. (2012) found that religious thoughts were highly accessible following mortality salience, suggesting that explicit death primes may not be influencing behaviour or defences, but instead, the activation of religious concepts which then influence behaviour or defence (see Arrowood, Coleman, & Hood, 2016; Coleman, Hood, & Shook, 2015, for this interpretation).

Limitations and future directions

Although the findings of the aforementioned study reveal several interesting outcomes, the nature of our samples may have played an unintentional, additional role. Initially, by only examining religious orientation, atheists may have been included in the low religious group. Although atheists have been grouped into low religious conditions in some studies (e.g., Norenzayan, Gervais, & Trzesniewski, 2012), it is important not to confuse low religious belief, or even “non-religiosity,” with atheism (Galen, 2012). Thus, this difference may have influenced the low religiosity group. It would make sense for an atheist to score higher in quest religiosity (as opposed to lower) because of the doubting nature of the orientation, but this would not mean that an atheist would be quest oriented, which may have unintentionally biased the results. Future research should consider an additional representative sample of atheists and distinguish them from the low religious group. The differing types of atheism may have also influenced the low religion group if atheists were included (Silver, Coleman, Hood, & Holcombe, 2014). Additionally, the current sample came from college students in the Bible belt of Appalachia, perhaps resulting in the afterlife narratives and decreased self-esteem for those who question. Considering that Burke et al. (2010) found that American samples respond to reminders of death with greater defensiveness, our sample may have accounted for the observed mortality salience effects. Further, although Burke et al. (2010) suggest that we held sufficient power in the current study, the marginal effects suggest that replication may be needed with a larger, more diverse sample. These limitations further suggest the need for replication and extension of these findings; however, the current study does yield considerable effects that warrant further study and inquiry due to the substantial overlap between current findings within both TMT and psychology of religion.

Conclusion

The current study provides further evidence for the effects of mortality salience on well-being. Although religion can serve as a way to bolster self-esteem, individual differences within quest religiosity suggest that when religious beliefs are questioned, well-being decreases following mortality salience. Thus, we do provide further evidence to Routledge and Juhl (2010) and Abeyta et al. (2014) in which mortality salience does impact well-being negatively; however, this effect is moderated by individual differences in quest religiosity. Additionally, we argue that death and religion are highly interlocked and ultimately impact well-being negatively when these religious beliefs are not fully believed.
Notes

1. Admittedly, several participants responded with other and self-identified as a specific Christian denomination. These participants were recorded as Christian, but it does suggest that some other participants may still be Christian but were misidentified in the analyses.

2. An additional study further suggested that mortality salience did not influence scores on the quest religiosity scale, \( t(75) = 0.96, p = 0.34 \).

3. All results held significance while statistically controlling for individuals’ religious orientation.

Disclosure statement

No potential conflict of interest was reported by the authors.

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