

**THE ROLE OF RELIGION IN DEATH ATTITUDES:  
DISTINGUISHING BETWEEN RELIGIOUS BELIEF  
AND STYLE OF PROCESSING RELIGIOUS  
CONTENTS**

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*Although it is widely assumed that religiosity plays an important role in individuals' attitudes about death, research to date has failed to reveal consistent associations between religiosity and death attitudes. Drawing from D. M. Wulff's (1991) multidimensional model of religiosity, the authors examined associations between religious attitudes as measured by the Post-Critical Belief Scale and death attitudes as assessed by the Death Attitude Profile—Revised. In total, 471 Dutch-speaking Belgian adults completed both questionnaires. Hierarchical multiple regression analyses were used to assess the unique contribution of the religious attitudes in the prediction of the death attitudes. First, results show that religious people are more likely to endorse an approach acceptance attitude toward death, indicating that religiosity as such is related to belief in an afterlife. Second, people holding a literal attitude toward religion report more death anxiety, indicating that the processing of religious contents is related to defensiveness toward death. Finally, the specific combination of the two dimensions seems important in the prediction of a neutral acceptance attitude.*

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*The relevance of our findings for future research on religiosity and death attitudes is discussed.*

Although realization of the finitude of life is an essential part of the human condition, there exist important individual differences in the type of attitudes people develop toward death (Neimeyer, Wittkowski, & Moser, 2004). Whereas some people think of death as something threatening and incomprehensible, others experience death as a natural end-point of life that may even serve to give meaning to life itself. These differences have important ramifications for the way people deal with fundamental existential questions such as the meaning of life and the possibility of an afterlife. As most religions offer a framework to answer existential questions concerning death and dying, individuals' religious attitudes may be important predictors of the type of death attitudes they develop. The aim of the present study was to examine relations between religious attitudes and death attitudes from the perspective of Wulff's (1991) multidimensional model of religiosity.

### **Religion and Death Attitudes**

Many scholars have pointed out the role of religiosity in the way people cope with concerns about death and finitude. A common idea in these accounts is that religiosity offers answers to existential and death-related questions and provides individuals with a sense of predictability and control that may protect against overwhelming anxiety provoked by the perspective of death. Jung (1965), for example, argued that all major world religions represent complicated systems of preparation for death. He asserted that the second half of life is characterized by a natural process of preparation for death and that religion can provide a sense of meaning in this process. Similarly, Frankl (1977) described the awareness of the inevitability of death as an existential crisis in which individuals are essentially confronted with a need to find meaning in life. According to Frankl, spiritual belief may be considered as the most important and effective way to put death into perspective and to find meaning in life.

More recently, Terror Management Theory (TMT; Solomon, Greenberg, & Pyszczynski, 1998) addressed the psychodynamic processes underlying people's coping with awareness of death, including the possible role of religion therein. TMT builds on Becker's claim (1973) that concerns about mortality play a pervasive role in human affairs, and suggests that people construct cultural worldviews in order to manage the terror engendered by the human awareness of death. According to TMT, cultural worldviews—including religiosity—provide important paths to achieve significance, meaning and purpose in people's lives (Beck, 2006). Furthermore, the theory assumes that religion may facilitate effective terror management by providing answers to existential questions concerning death and dying and by giving hope of symbolic or literal immortality (Solomon et al., 1998). TMT assumes that all cultures provide information regarding death that affords opportunities for individuals to live forever, either symbolically (e.g., by producing great art) or literally, that is, through religious beliefs in reincarnation or heaven. Much like Jung (1965) and Frankl (1977), TMT argues that an adherence to a religious worldview may minimize death anxiety and thus serves a protective function against feelings of existential despair.

Given that numerous psychological theories have tied human concerns about death and dying to religiosity, it seems likely that an individual's attitude about religiosity has specific relevance for his or her death attitude. Although a substantial body of research has addressed the relation between religiosity and death attitudes, this research has a number of limitations (Neimeyer et al., 2004). First, the dominant focus of many studies has been on the measurement of death anxiety, without considering other (potentially more positive) death attitudes. Second, many studies have adopted unidimensional and atheoretical conceptualizations of religiosity without tapping into people's underlying attitudes toward religiosity. Perhaps as a consequence of these limitations, evidence for a link between religiosity and death anxiety is equivocal. For instance, contrary to the idea that religion serves an adaptive function in reducing death anxiety, Feifel's (1959) early research showed that religious people reported more death anxiety. In a later study, however, Feifel and Branscomb (1973) found a negative association between religiosity and death anxiety. Subsequent research involving unidimensional assessments of religiosity and death

anxiety has provided equally conflicting findings (for overviews of these issues, see Fortner & Neimeyer, 1999; Neimeyer et al., 2004; Wink & Scott, 2005).

As noted by Neimeyer et al. (2004), one way to obtain a more precise picture of the religiosity-death attitude link is to expand on the construct of death attitudes. Florian and Kravetz (1983), for instance, found that highly religious individuals were more anxious about some aspects of death (e.g., punishment in the hereafter) but less anxious about other aspects (e.g., self-annihilation). Christopher, Drummond, Jones, Marek, and Therriault (2006) found that religiosity was positively related to positive death attitudes (e.g., death as a natural end of life) and negatively to negative death attitudes (e.g., death as a failure). Together, these findings point to the importance of distinguishing between different death attitudes and, more specifically, they point to the usefulness of focusing on both negative (i.e., anxiety and avoidance) and relatively more positive attitudes toward death (i.e., a neutral or even accepting orientation toward death).

The present study relied on a multidimensional measure of death attitudes, that is, the Death Attitude Profile—Revised (DAP-R; Gesser, Wong, & Reker, 1987), which comprises scales for both fear of death and death acceptance. Wong, Reker, and Gesser (1994) made a number of distinctions within the concepts of fear of death and death acceptance, resulting in five different death attitudes: (a) *neutral acceptance*, involving the view that death is an integral part of life; (b) *approach acceptance*, a positive outlook on death rooted in the belief in a happy afterlife; (c) *escape acceptance*, where death is a welcome alternative to a life full of pain and misery; (d) *fear of death*, involving feelings of fear evoked by confrontations with death; and (e) death avoidance, involving avoidance of thinking or talking about death in order to reduce death anxiety. Research indicated that the DAP-R (a) has good psychometric qualities in terms of factor structure and reliability and (b) shows good external validity (Wong et al., 1994).

In addition to expanding on the concept of death attitudes, Neimeyer et al. (2004) have argued that the field could benefit from more refined and theory-driven conceptualizations of religiosity (see also Falkenhain & Handal, 2003). Many studies have used descriptive measures of religious behavior and religious activities (e.g., church attendance; Duff & Hong, 1995). However, recent

studies have shown that religious attitudes, as they are more closely related to profound differences in individuals' psychological functioning, show a clearer pattern of associations with death attitudes. Cohen et al. (2005), for instance, showed that whereas intrinsic religiosity (i.e., experiencing religion as a master motive in one's life) was negatively related to death anxiety in a sample of Protestants, extrinsic religiosity (i.e., using religion to gain some end such as emotional support) was positively related to death anxiety. Similarly, in a sample of elderly persons, Ardel and Koenig (2006) found that, whereas intrinsic religiosity was strongly related to an accepting attitude toward death, extrinsic religiosity was related to death anxiety.

The framework used in most of the studies focusing on religious attitudes is the model of intrinsic-extrinsic orientation of Allport and Ross (1967). This model and its accompanying scale pertain to the motivational sources of people's religious attitudes (see also Neyrinck, Lens, & Vansteenkiste, 2005) and are highly useful within religious samples. Recent studies, however, indicated that the ROS is less adequate to measure religious attitudes in a secularized context, like Western Europe, characterized by lower levels of church attendance and religiosity (Dezutter, Soenens, & Hutsebaut, 2006). The present study draws from Wulff's (1991) model of religiosity to examine associations between religious and death attitudes. As will be outlined in the following paragraph, this model may provide a more comprehensive picture of religious attitudes in secularized societies.

### **Wulff's Multidimensional Framework of Religiosity**

In the final chapter of his book on psychology and religion, Wulff (1991) summarized all approaches to religion in a two-dimensional space built up by two axes. The inclusion versus exclusion of transcendence dimension (vertical axis) specifies whether or not people believe in a transcendent reality, that is, whether they believe or not. The literal versus symbolic dimension (horizontal axis) indicates whether religion is interpreted literally or symbolically. Hence, whereas the inclusion versus exclusion dimension pertains to religiosity as such, the literal versus symbolic dimension pertains to the way people process religious contents. Both dimensions are thought to be relatively orthogonal, such that four basic attitudes toward religion can be defined (Hutsebaut, 1996; Wulff,

1991): (a) literal inclusion, (b) literal exclusion, (c) symbolic inclusion, and finally, (d) symbolic exclusion.

*Literal inclusion* is typical of individuals defining themselves as religious and interpreting religious contents in a rigid, closed-minded, and dogmatic fashion. These individuals uncritically and strictly adopt religious contents as taught by a particular religious tradition. Individuals with an attitude of *symbolic inclusion* also define themselves as religious persons yet process religious contents in a more symbolic, open, and tolerant fashion. They assume that several interpretations of religious contents are possible and try to find an interpretation of religious contents that they find personally meaningful. Individuals with an attitude of *literal exclusion* reject the possibility of a religious reality on the basis of strict and literal arguments (e.g., the lack of scientific evidence for the miraculous stories in the Bible). Finally, people holding an attitude of *symbolic exclusion* also define themselves as non-religious, yet they are less judgmental and closed-minded toward religiosity compared to people with an attitude of literal exclusion. Individuals high on symbolic exclusion consider religiosity as one way of giving meaning to life among many others. They respect other people's choice to be religious but do not need religiosity themselves to find personal meaning in life.

It is important to note that the model of Wulff (1991) is distinct from the model of Allport and Ross (1967). These two models differ in at least two important ways. As mentioned before, the model of Allport and Ross pertains to the motivational sources of people's religious attitudes, whereas the four attitudes of Wulff represent four different social-cognitive approaches to religiosity. The classifications of Allport and Wulff are built on a different perspective and are therefore distinct. An extrinsic religious person can approach religious contents in a symbolic way or in a literal way. The same goes for an intrinsic orientation. Second, whereas the model of Allport and Ross does not take into account the attitudes of non-religious people, the model of Wulff allows one to chart individuals' attitudes irrespective of whether they are religious. Accordingly, Wulff's model may be more suitable to study religious attitudes within secularized societies (Dezutter et al., 2006).

Hutsebaut (1996) developed the Post-Critical Belief Scale (PCBS) to measure the four religious attitudes of the model of Wulff (i.e., literal inclusion, literal exclusion, symbolic inclusion, and

symbolic exclusion). Through factor-analysis Duriez, Fontaine, and Hutsebaut (2000) demonstrated the empirical distinctiveness of the subscales. It has been shown that the factor structure of the PCBS is quite stable and replicable (Fontaine, Duriez, Luyten, & Hutsebaut, 2003). Moreover, the PCBS scales have been found to correlate in theoretically expected ways with measures of religious behavior (e.g., church attendance) and social cognition (e.g., need for closure), thereby testifying to the scale's validity (Duriez & Hutsebaut, in press). Subsequent studies have shown that, when disentangling the effects of being religious or not (i.e., exclusion vs. inclusion of transcendence) from the way in which religious contents are processed (i.e., literal vs. symbolic interpretation), theoretically meaningful relations exist between the four attitudes and a number of external variables (see Duriez & Hutsebaut, in press, for an overview). For instance, religious attitudes expressing a more literal and dogmatic approach to religion (i.e., literal inclusion and literal exclusion) have been shown to relate to higher levels of racism (Duriez & Hutsebaut, 2000), higher levels of authoritarianism, and need for closure (Duriez, Van Hiel, & Kosowska, 2002), a normative, self-protective approach to identity construction (Duriez, Soenens, & Beyers, 2004), more controlled reasons for engaging in religious activities (Neyrinck, Vansteenkiste, Lens, Duriez, & Hutsebaut, 2006), and lower mental health (Dezutter et al., 2006). As will be explained in the next section, we believe that Wulff's model provides a useful theoretical framework to study the relation between religiosity and death attitudes as well.

### The Present Study

The purpose of this study is to investigate the relationship between religious attitudes and death attitudes in a sample of early, middle, and late adults. Specifically, we examined associations between Wulff's (1991) four religious attitudes (i.e., literal inclusion, literal exclusion, symbolic exclusion, and symbolic inclusion) and four death attitudes (i.e., Fear of Death, Death Avoidance, Neutral Acceptance and Approach Acceptance).<sup>1</sup> The following hypotheses were forwarded.

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<sup>1</sup>We did not include the "Escape Acceptance" scale from the DAP—R in this study because (a) we did not have a priori hypotheses on the link between religiosity and Escape Acceptance and (b) this scale has a specific content (i.e., death as deliverance from pain and suffering) that may be of little relevance in our community sample.

First, because religious people typically believe in an afterlife and think of the afterlife as a desirable state (Falkenhain & Handal, 2003), we expected religious people (a) to adopt an approach acceptance attitude toward death, entailing positive expectations about the possibility of an afterlife, and (b) to reject an attitude of neutral acceptance, as the latter attitude reflects an indifferent attitude toward death, characteristic of people who consider death as an integral part of life itself. Translated to the model of Wulff (1991), we predicted that literal inclusion and symbolic inclusion would be positively associated with approach acceptance and negatively associated with neutral acceptance. Conversely, it was expected that literal exclusion and symbolic exclusion would relate negatively to approach acceptance and positively to neutral acceptance.

Second, on the basis of previous research showing that individuals' religiosity as such is not consistently related to death anxiety nor to defensive reactions toward death (Neimeyer et al., 2004), it was anticipated that the distinction between attitudes high or low on the inclusion of transcendence dimension would have little direct predictive value toward fear of death and death avoidance.

Third, we propose, however, that the qualitative way of processing religious belief contents (i.e., symbolic vs. literal) would be more directly relevant to predict fear of death and death avoidance. As suggested by previous research, individuals with a literal approach to religiosity seem to function in a more defensive and closed-minded way, thereby avoiding ambiguity and guarding themselves from any information that may result in feelings of insecurity. As death represents, by its very nature, an uncertain and ambiguous existential issue, awareness of death may arouse anxiety in individuals high on the literal versus symbolic dimensions along with an inclination to avoid thoughts related to death and dying. Conversely, individuals with a symbolic and open-minded approach would be less likely to suppress death-related thought and might be less threatened by awareness of death, thus experiencing less death anxiety. In sum, we predicted that literal inclusion and literal exclusion would be positively associated with fear of death and death avoidance, whereas symbolic exclusion and symbolic inclusion would be negatively associated with fear of death and death avoidance.

We generally expected that the associations between religious attitudes (e.g., symbolic inclusion) and death attitudes would reflect

the hypothesized effects of the dimensions underlying the religious attitudes (e.g., Symbolic and Inclusion). For instance, as symbolic was hypothesized to be negatively related to fear of death and as inclusion was hypothesized to be unrelated to fear of death, we expected that an attitude of symbolic inclusion would be negatively related to fear of death. However, we also wanted to consider the possibility that some specific combinations of the two dimensions could have unique value in predicting the death attitudes. For instance, the effect of symbolic inclusion in predicting fear of death may be stronger than predicted on the basis of the separate effects of symbolic and inclusion alone. To leave open the possibility that such synergistic effects would occur, we examined relations between religiosity and death attitudes in terms of the four religious attitudes (which represent combinations of the underlying dimensions) rather than in terms of the dimensions underlying these attitudes.

In examining the associations between religious attitudes and death attitudes, we controlled for a number of relevant background variables, including participants' age and subjective health status. As these variables have been shown to be significantly related to at least some of the death attitudes, it is important to assess whether religious attitudes add to the prediction of death attitudes beyond the effect of these background variables. Concerning age, some studies found that death anxiety decreases from mid-life to old age (Neimeyer et al., 2004). Some studies also found that health status is related to death attitudes, with healthy people demonstrating lower levels of death concerns and fears compared to infirm or ill people (Neimeyer et al., 2004).

## Method

### *Participants and Procedure*

The initial sample consisted of 476 adults, of whom 471 filled out all the necessary items. Questionnaires were distributed by undergraduate students and handed out personally to family, friends, and relatives, and in organizations (e.g., organizations for adult education). Students were instructed not to collect data from several members of the same family. Participants were told that the study focused on world views and outlook on life. Participation was voluntary and

anonymity was guaranteed. All participants were Dutch-speaking and of Belgian nationality. Mean age of the participants was 46 years ( $SD = 15.38$ ) with a range from 17 years to 91 years. A breakdown by gender yielded 63.7% women and 36.3% men. The highest educational level was primary school for 14.3% of the sample, secondary school for 72.9% and higher education for 10.7% of the sample. The majority of the participants was married (68.7%), 9.7% were single, 6.5% cohabited, 4.4% were widowed, and 5.9% were divorced. Concerning religious status, 16.6% of the participants described themselves as non-believers, whereas 80.9% described themselves as Christian (Catholic 80.7%, Protestant 0.2%). A small group of participants (2.5%) failed to denote their religious status.

### Measures

#### SUBJECTIVE HEALTH STATUS

Three questions developed for the purpose of this study tapped into participants' subjective health status. First, participants were asked to indicate how often they consulted a physician during the past year on a scale ranging from 1 (*a couple of times each week*) to 7 (*not once*). Second, they were asked whether they experienced physical pain during the past year and indicated their answer on a scale from 1 (*never*) to 4 (*always*). Third, participants were asked to compare their personal health status to the health status of their age-mates on a scale from 1 (*much better*) to 5 (*much worse*). The three items were coded such that higher scores indicate higher levels of subjective health (reversal of item 2 and 3) and were averaged to form an index of subjective health status. Cronbach's alpha of this 3-item scale was .63.

#### PCBS

To measure the different religious attitudes as identified by Wulff (1991), the 33-item PCBS (Duriez et al., 2000) was administered. All items were scored on a 7-point Likert scale ranging from  $-3$  (*strongly disagree*) to  $+3$  (*strongly agree*). Estimates of internal consistency (Cronbach's alpha) were .80 for symbolic inclusion, .88 for literal inclusion, .85 for literal exclusion, and .75 for symbolic exclusion. Examples of items are "I think that Bible stories should be taken literally, as they are written" (literal inclusion); "Faith is an expression of a weak personality" (literal exclusion); "I am well

aware my ideology is only one possibility among so many others” (symbolic exclusion); and “The Bible holds a deeper truth which can only be revealed by personal reflection” (symbolic inclusion).

Detailed information about the PCBS, its assessment, and validity can be found on the website of the Center for the Psychology of Religion (<http://ppw.kuleuven.be/religion/>). The questionnaire, which can be used freely, can also be downloaded from this website.

#### DEATH ATTITUDE PROFILE—REVISED (DAP-R)

The DAP-R is a revision of the DAP, a multidimensional measure of attitudes toward death developed by Gesser et al. (1987). The scale consists of 32 items scored on a 7-point Likert scale ranging from +3 (*strongly agree*) to -3 (*strongly disagree*). Estimates of internal consistency (Cronbach’s alpha) were .81 for fear of death, .87 for death avoidance, .71 for neutral acceptance, and .91 for approach acceptance. Examples of items are “The prospect of my own death arouses anxiety in me” (fear of death); “I avoid death thoughts at all costs” (death avoidance); “I believe that I will be in heaven after I die (Approach acceptance); and “Death is a natural aspect of life” (neutral acceptance).

## Results

### *Descriptive Statistics and Correlational Analyses*

Concerning the background variables, age was positively related to approach acceptance and death avoidance and negatively to neutral acceptance (see Table 1). Subjective health status showed a negative correlation with fear of death, indicating that individuals experiencing less subjective health were more anxious about death. Independent samples *t* tests did not show any gender effects on the study variables (all *ps* > .05). Given that age and subjective health (but not gender) were significantly related to some of the study variables, we controlled for the possibly confounding role of age and subjective health in the multiple regression analyses.

Correlations among the psychological variables can also be found in Table 1. Because of the large sample size, our analyses attained high power. To avoid small correlations being flagged as significant, only correlations leveling  $p < .01$  were considered

**Table 1** Correlations between Religious Attitudes and Death Attitudes

Measures	1	2	3	4	5	6	7	8	9	10
1. Age		-.12	.43**	.03	.16*	-.18**	.02	.23**	-.16*	.28**
2. Subjective health			-.05	-.01	.01	.03	-.17**	-.10	.08	.01
3. Literal inclusion				-.06	.27**	-.50**	.24**	.41**	-.38**	.46**
4. Literal exclusion					-.64**	.12	.16**	.23**	.03	-.45**
5. Symbolic inclusion						.14*	.02	-.09	.00	.54**
6. Symbolic exclusion							-.02	-.29**	.35**	-.22**
7. Fear of death								.53**	-.25**	.09
8. Death avoidance									-.22**	.13
9. Neutral acceptance										-.15*
10. Approach acceptance										

\* $p < .01$ , \*\* $p < .001$ .

significant. As for the four religious attitudes, consistent with past research (Duriez et al., 2000), literal inclusion and symbolic exclusion were negatively related, and so were symbolic inclusion and literal exclusion. The four death attitudes were found to be relatively distinct, although a number of significant correlations did emerge. Fear of death and death avoidance were positively correlated, and neutral acceptance was negatively correlated with fear of death, death avoidance, and approach acceptance.

Literal inclusion was positively correlated with fear of death, death avoidance, and approach acceptance and was negatively correlated with neutral acceptance. Literal exclusion was also positively correlated with fear of death and death avoidance, yet showed a negative correlation with approach acceptance. Symbolic inclusion was positively correlated with approach acceptance. Symbolic exclusion was negatively correlated with death avoidance and approach acceptance, and positively correlated with neutral acceptance.

### *Multiple Regression Analyses*

To assess the unique contribution of the religious attitudes in the prediction of the death attitudes after controlling for the background variables (age and subjective health), we performed a series of hierarchical multiple regression analyses. Separate regression analyses were performed for each of the death attitudes,

with the background variables entered in Step 1 and with the religious attitudes entered in Step 2. Results can be found in Table 2. The background variables significantly predicted fear of death,  $F(2,431) = 6.25, p < .01$ ; death avoidance,  $F(2,427) = 12.80, p \leq .01$ ; neutral acceptance,  $F(2,430) = 6.52, p < .01$ ; and approach acceptance,  $F(2, 423) = 18.59, p < .001$ .

More importantly, the religious attitudes added to the prediction of each of the death attitudes above and beyond the contribution of the background variables, with  $F(6,427) = 12.00, p < .001$  for fear of death;  $F(6,423) = 23.92, p < .001$  for death avoidance;  $F(6,426) = 15.40, p < .001$  for neutral acceptance; and  $F(6, 419) = 57.60, p < .001$  for approach acceptance. As shown in Table 2, approach acceptance was positively predicted by literal inclusion and symbolic inclusion and was negatively predicted by literal exclusion. Neutral acceptance was negatively predicted by literal inclusion and positively by symbolic exclusion. Fear of death and death avoidance were positively predicted by literal inclusion and literal exclusion. Finally, death avoidance was negatively predicted by symbolic exclusion.

**Table 2** Hierarchical Regressions Predicting Death Attitudes from Background Variables and Religious Attitudes

	Death attitude							
	Approach acceptance		Neutral acceptance		Fear of death		Death avoidance	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
<i>Background variables</i>								
Age	.29**	.10	-.15*	.01	.02	-.15*	.22*	.03
Subjective health	.05	.03	.07	.07	-.17*	-.17*	-.07	-.07
<i>Religious attitudes</i>								
Literal inclusion		.27**		-.32**		.29**		.31**
Symbolic inclusion		.34**		.09		.18		.04
Literal exclusion		-.20**		.03		.27**		.30**
Symbolic exclusion		-.09		.16**		.02		-.16*
$\Delta R^2$	.08**	.37**	.03	.15**	.03**	.12**	.06**	.20**

*Note.* Coefficients shown are standardized regression coefficients.  
\* $p < .01$ , \*\* $p < .001$ .

## Discussion

The present research aimed to extend previous work by adopting (a) a multi-dimensional perspective on death attitudes to examine whether religion would yield an effect on some death attitudes and not on others and (b) a multidimensional view on religion. With respect to the latter, we drew from Wulff's (1991) model of religious attitudes, which distinguishes the extent to which individuals are religious from the way people process religious belief contents. As such, this study heeded recent calls to study the religiosity-death attitudes link from a multidimensional and theory-driven perspective. Several interesting findings emerged.

First, we found that literal inclusion and symbolic inclusion were positively associated with approach acceptance, whereas literal exclusion was negatively associated with approach acceptance. Hence, irrespective of the way religious contents are interpreted, religious people are more likely to believe in an afterlife compared to non-religious people. This finding confirms our hypothesis that the inclusion versus exclusion dimension is particularly relevant for the extent to which people believe in an afterlife (i.e., approach acceptance). This finding is easy to understand given that most, if not all, religious systems assert that "death is not the end" and it is also in line with previous studies showing strong correlations between measures of religiosity and belief in afterlife (e.g., Falkenhain & Handal, 2003; Lin, 2003; Tomer & Eliason, 2005).

Second, neutral acceptance was negatively predicted by literal inclusion and positively by symbolic exclusion. Religious people who believe in a literal fashion reject the idea of death as a natural part of life itself, most likely because most world religions describe death as a state that is qualitatively different from life. Within a very literal approach to religiosity, the afterlife even takes place in specific non-earthly locations such as Heaven and Hell. By contrast, people with a symbolic exclusion attitude try to find meaning in life itself, without relying on a transcendent reality. Accordingly, they also consider death as a natural part of life itself. Contrary to our expectations, symbolic inclusion was not negatively related to neutral acceptance, nor was literal exclusion positively related to neutral acceptance. Hence, although we anticipated that people's position on the inclusion versus exclusion dimension would uniquely relate to their endorsement of neutral acceptance,

it appears that it is actually the combination of the inclusion dimension with the literal versus symbolic dimension that most strongly predicts neutral acceptance. Religious belief is not by itself related to neutral acceptance: Religious belief only relates negatively to neutral acceptance in combination with a literal style of processing religious information (i.e., literal inclusion). Conversely, religious disbelief only relates to more neutral acceptance when coupled with a symbolic approach to religiosity (i.e., symbolic exclusion).

Third, the two literal religious attitudes (literal inclusion and literal exclusion) were positively related to fear of death and death avoidance. This finding corroborates our assumption that individuals with a literal approach to religion have more difficulties coping with the uncertainty of death and dying. Previous studies have indeed shown that, irrespective of whether people believe or not, people with a literal approach to religiosity display less openness to experience, more closed-mindedness, and less tolerance of ambiguity (e.g., Duriez, 2003). A lack of experiential openness may at least partly explain why individuals with a literal approach to religion react more defensively toward death. It has been shown that closed-minded people and people low on openness and mindfulness are generally more prone to defensive functioning, as expressed in behaviors such as out-group derogation (e.g., Shah, Kruglanski, & Thompson, 1998), prejudice (e.g., Ekehammer, Akrami, Gylje, & Zakrisson, 2004), and more world-view defense following a mortality salience manipulation (e.g., Niemiec, Brown, & Ryan, in press). Future research on religion and death attitudes would do well to actually test the hypothesized mediational role of experiential openness, mindfulness, or tolerance of ambiguity in relations between literal thinking and death attitudes.

An alternative explanation involves a different direction of effects. The possibility also exists that individuals with a tendency to fear and avoid death adopt a more literal approach to religiosity. A literal interpretation of religious contents may thus represent a defensive response to (rather than the cause of) an already present death anxiety. For instance, when facing their deep-rooted fears of death, individuals with an attitude of literal inclusion may find some (short-term) solace by holding on to the literal Biblical idea that, in the afterlife, the believers will be rewarded and the sinners will be punished. Similarly, the rigid and literal scientific

explanations forwarded by individuals with an attitude of literal exclusion as well as their judgmental attitude toward religious people may represent defensive expressions of their own anxiety about death and dying. Evidently, both explanations do not exclude one another, as religious attitudes and death attitudes may mutually reinforce one another across time. Longitudinal research is needed to shed more light on this issue.

It is also possible that individuals in the literal inclusion and literal exclusion attitude attribute the fear of their own death differently. Earlier research (Florian & Kravetz, 1983), for example, indicated that religious individuals fear death because of the punishment in the hereafter whereas nonreligious individuals fear death because of the idea of self-annihilation. Similarly, individuals in the literal inclusion attitude might fear death because of their strong belief in an encounter with a punishing and judging God whereas individuals in the literal exclusion attitude might fear the aspect of final annihilation. However, further research is necessary to examine these hypotheses.

Notably, although the literal attitudes toward religion were systematically positively related to death anxiety and avoidance, the symbolic attitudes toward religion were less consistently related to defensiveness. Symbolic inclusion was unrelated to death anxiety and avoidance and symbolic exclusion was negatively related to death avoidance only. This unanticipated pattern of findings suggests an asymmetry in relations between literal versus symbolic processing and death anxiety. Whereas a literal processing style positively predicts death anxiety and avoidance, a symbolic processing style does not necessarily protect against death anxiety. Similar results were recently obtained in a study of religiosity and mental health, where it was found that literal religious attitudes negatively predict well-being but symbolic religious attitudes do not foster well-being (Dezutter et al., 2006). Additional research is needed to replicate this finding and to further identify factors that may possibly moderate a link between symbolic processing of religiosity and death anxiety.

Finally, it is important to note that the associations between religious and death attitudes obtained in this study held even when controlling for the effects of a number of background variables, such as age and subjective health. In line with previous research (e.g., Ardel & Koenig, 2006), participants reporting lower levels

of subjective health experienced more death anxiety. Participants' age was positively related to approach acceptance, indicating that older participants more strongly endorsed a belief in the afterlife. Contrary to previous research (see Neimeyer et al., 2004, for a review), however, age was not significantly related to death anxiety and was even positively related to death avoidance. Although one might argue that the association between age and death avoidance in this study could be curvilinear rather than linear (with both young adult and very old participants being more likely to avoid death), a follow-up analysis did not obtain evidence for such a curvilinear effect ( $p > .05$ ). The finding of a positive association between age and death avoidance also could not be attributed to the lack of variance in participants' age, as the sample included participants from early adulthood to old age. It is interesting to note, however, that the positive association between age and death avoidance disappeared after taking into account the effect of the religious attitude, indicating that this age effect may have represented a spurious relation caused by the positive association between age and both literal inclusion and death avoidance.

#### *Limitations*

Although the present research revealed a number of interesting findings, some limitations need to be pointed out. First, all data in this study were collected by use of self-report questionnaires. Although questionnaires are appropriate to gather information about subjective and internal concepts as religious and death attitudes, the sole reliance on self-report measures in this study may have led to an overestimation of some of the findings due to shared method variance. Thus, future research would do well to use more diverse methods in the assessment of religious and death attitudes. Second, the cross-sectional character of the study limits conclusions considering the nature of the relationship in terms of linearity and directionality. With respect to causality, future research should focus on longitudinal studies or experimental designs. Finally, our findings need to be replicated in samples that are more diverse and representative in terms of characteristics such as religious denomination, socio-demographic status, ethnicity, and level of education.

## Conclusion

The findings of this study support the importance of taking a multidimensional perspective to both religiosity and death attitudes (Neimeyer et al., 2004). Whereas openness to religion and transcendence is related to a stronger belief in afterlife, qualitatively different ways of processing religious contents is related to one's level of defensiveness toward death. Irrespective of whether people adopt a religious worldview or not, a literal, closed-minded and dogmatic approach to religious contents is associated with more death anxiety and with a stronger tendency to avoid and suppress death-related thoughts. However, in the prediction of the idea of death as a natural end point of life (i.e., neutral acceptance), the specific combination of both dimensions seems important. Primarily individuals who combine a symbolic approach with an exclusion of transcendence agree with this concept of death. Individuals in the opposite attitude (literal approach combined with inclusion of transcendence) show a significant disagreement with this concept.

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