

Does Religiousness Buffer Against the Fear of Death and Dying in Late Adulthood? Findings From a Longitudinal Study

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We used longitudinal data ($N = 155$) to investigate the relation between religiousness and fear of death and dying in late adulthood. We found no linear relations between religiousness and fear of death and dying. Individuals who were moderately religious feared death more than individuals who scored high or low on religiousness. Fear of death also characterized participants who lacked congruence between belief in an afterlife and religious practices. We replicated the curvilinear relation between fear of death and religiousness in late adulthood with religiousness in middle adulthood, controlling for sociodemographic variables, life satisfaction, social support, and stressors. Older participants (in their mid-70s) who experienced more bereavement and illness feared the dying process less than younger participants (in their late 60s). The findings support the hypothesis that firmness and consistency of beliefs and practices, rather than religiousness per se, buffers against death anxiety in old age.

DESPITE the commonly held view that religion buffers against the fear of death, empirical attempts to demonstrate this connection have met with mixed results (Neimeyer, 1994; Fortner & Neimeyer, 1999). In this study we used data from a long-term longitudinal study to test two competing hypotheses regarding the relation between religion and fear of death and dying in late adulthood. The first hypothesis predicts the presence of a linear relationship between fear of death or death anxiety (the two terms are typically used interchangeably) and religiousness (e.g., Cicirelli, 2002). The second hypothesis postulates the presence of a more complex relation reflecting the finding that death anxiety is highest among individuals who are moderately religious (e.g., Nelson & Cantrell, 1980) and those who show an inconsistency between their religious beliefs and practices (e.g., Aday, 1984–1985).

Why Religiousness and Fear of Death Should be Negatively Related

There are several reasons postulated for why there should be a negative relation between religion and fear of death. Religion not only provides comfort in times of suffering and stress (Pargament, 1997) but also—at least in the case of Christianity—offers a promise of life after death and of reunion with beloved ones (Leming, 1979–1980). Traditional forms of religiousness may also suppress the fear of death by providing social support through church attendance or membership in religious congregations (Ellison & George, 1994) and, according to terror management theory (McCoy, Pyszczynski, Solomon, & Greenberg, 2002), by connecting the individual to mainstream cultural standards and values. If old age is a time when concern over the meaning of life gains in salience (Erikson, Erikson, & Kivnick, 1986), religion may provide a particularly effective buffer against death anxiety because it offers hope of both literal and symbolic immortality (Lifton, 1973).

In support of the so-called linear effect hypothesis, Fortner and Neimeyer (1999), in their review of research on older

adults, documented a significant, albeit small, negative association between fear of death and religious belief, variously measured by the importance of religion in a person's life, and belief in God and in a rewarding afterlife. This relation was not present, however, in studies using religious behavior (i.e., church attendance) as the independent variable. The fact that it is religious belief rather than behavior that buffers against fear of death has been interpreted to mean that concern over mortality is alleviated by intrinsic religiousness (e.g., Cicirelli, 2002). In contrast, extrinsic religious involvement, which is focused on social or other external purposes, does not have the same buffering effect (e.g., Witkowski, 1988).

Why the Relationship May Be More Complex

The hypothesis of a more complex relation between religion and fear of death is based primarily on studies reporting a curvilinear, rather than linear, association between the two constructs: individuals who are either high or low in religiousness are least afraid of death, and individuals who are moderately religious fear death the most (e.g., Downey, 1984; Leming, 1979–1980; McMordie, 1981; Nelson & Cantrell, 1980; Smith, Nehemkis, & Charter, 1983–1984). Additional support for the “complex model” is provided by studies showing that (a) the relation between religiousness and death anxiety is mediated by a perception that life is meaningful (Tomer & Eliason, 2000), and (b) death anxiety is related to contradictory beliefs (ambivalence) regarding death and afterlife (Ingram & Leitner, 1989) and the absence of a personal philosophy of death (Holcomb, Neimeyer, & Moore, 1993).

Several explanations have been offered for why the relation between fear of death and religion should be more complex than suggested by the linear hypothesis. From an existential perspective, it is assumed that, irrespective of religion, individuals are motivated to pursue personal meaning that buffers them against personal anomie (e.g., Wong, 2000). Although religiousness provides definite answers to the dilemma of human existence and offers individuals a sense of

predictability and control over their lives (Leming, 1979–1980), the same can be said of a secular ideology that assumes finality of life (Alexander & Alderstein, 1959; Kalish, 1981; Neimeyer, 1994). As suggested by Lifton (1973), symbolic immortality can be achieved through both religious and secular means (e.g., parenting and creative endeavor), and both strategies can mitigate death anxiety (Hood & Morris, 1983).

Whereas a consistent view of death and afterlife—irrespective of its source—can reduce death anxiety, an inconsistent stance may increase fear of death either by opening the possibility of life after death without providing the certainty of its attainment (Leming, 1979–1980), or by raising the specter of punishment after death (Nelson & Cantrell, 1980). A moderate score on religiousness, however, does not necessarily imply inconsistency or ambivalence. It may instead be reflective of a lukewarm interest in religion that does not increase fear of death but rather—compared with low or high religiousness—fails to deter death anxiety. Indirect support for the so-called inconsistency hypothesis comes from survey findings showing that, among American Christians, the ratio of those who believe in afterlife (over 80%; see Greeley & Hout, 1999) to those who attend church on a regular basis (44%, Moore, 2002) is approximately 2:1. This means that many Americans exhibit the kind of disjuncture between religious belief and practice that has been postulated to increase fear of death. In addition, Aday (1984–1985) found that a significant but weak relation between belief in afterlife and death anxiety became insignificant after religiousness (importance of religious beliefs and practices) was controlled for, thus raising the possibility that the strongest buffer against the fear of death is provided by the consistency between religiousness and belief in afterlife.

Description of Study and Measures

In this study, we used life course data from a representative community-based sample of men and women born in the San Francisco East Bay Area in the 1920s to (a) investigate the relation between fear of death and fear of dying, and religiousness and belief in afterlife in late adulthood, and (b) to predict fear of death and fear of dying in late adulthood from religiousness in middle adulthood, a time interval of 25 years.

We used fear of death and fear of dying scored from the self-report Death Attitudes Profile (DAP; Gesser, Wong, & Reker, 1987–1988) as the two outcome variables in late adulthood (when people are in their 60s to early 70s). The DAP was not administered at earlier time periods. We chose fear of death because anxiety in facing up to the fact of death reflects the most basic human dilemma (Becker, 1973; Wong, Reker, & Gesser, 1994), and we chose fear of dying because it has particular salience in older adulthood (Tobin, 1996). Several studies have found a negative relation between religiousness and fear of dying (e.g., Cicirelli, 1999; Thorson & Powell, 1990), though there are some exceptions (e.g., Hoelter & Epley, 1979). Previous research suggests that fear of death and fear of dying are moderately correlated (Cicirelli).

Our main predictor variable was a measure of religiousness scored from in-depth interviews conducted with study participants when they were in middle adulthood (in their 40s) and late adulthood (late 60s to mid-70s). We measured religiousness in terms of the overall importance of religion in an individual's life indicated by his or her religious beliefs and

practices. To obtain a high score, the individual had to exhibit evidence that his or her religious beliefs (e.g., in God and in afterlife) were accompanied by regular church attendance and/or systematic engagement in other religious activities such as prayer (Wink & Dillon, 2001, 2003). Our measure of religiousness was highly correlated with both church attendance and intrinsic religiosity (see the Methods section). We used a second predictor variable, belief in a rewarding afterlife (scored from the DAP), to test the hypothesis that fear of death was related to the consistency between an interview-based rating of religiousness and a self-reported belief in afterlife. Although correlated with religiousness, our measure of belief in a rewarding afterlife did not assume engagement in religious practices.

Hypotheses

We used the data collected from individuals in late adulthood to test two alternate hypotheses. The first postulated a linear negative relation between religiousness and fear of death and dying. The second postulated a curvilinear relation in which individuals scoring either high or low on religiousness were less afraid of death than those who received a moderate score. As a corollary of the second hypothesis, we tested the prediction that high levels of fear of death characterized individuals who showed *inconsistency*, and low levels characterized those who exhibited *consistency*, between belief in a rewarding afterlife and religiousness.

We used longitudinal data to test whether the buffering effect of religiousness in late adulthood on fear of death and dying in late adulthood could be replicated by using measures of religiousness scored in middle adulthood, a time interval of 25 years. We chose this time period because previous research showed that the buffering effect of religiousness on negative views of the self, that is, depression and low life satisfaction, in late adulthood could be predicted from middle adulthood, that is, when people are in their 40s, onward (Wink & Dillon, 2001; Wink, Dillon, & Larsen, 2005). Replicating the pattern of findings obtained in late adulthood with measures of religiousness scored in middle adulthood helps to clarify an important ambiguity inherent in cross-sectional findings. Previous research suggests that (a) exposure to death increases in late adulthood (Thorson & Powell, 1990) and this, in turn, decreases fear of death (e.g., Gibbs & Achterberg-Lawlis, 1978); and (b) the experience of negative life events may increase religiousness (Ferraro & Kelley-Moore, 2000; but see George, Ellison, & Larson, 2002, for a contrary view). Consequently, a negative relation between religiousness and fear of death in late adulthood can mean either that religiousness buffers against such fear or, alternatively, that religion acts, in part, as a palliative for individuals who have suffered adversity and as a result are inoculated against the fear of death. Because individuals tend to be less exposed to death and dying in middle than in late adulthood, replicating the pattern of relationships found in late adulthood with a measure of religiousness scored in middle adulthood would reduce the chance that the findings were due to shifts in religiousness resulting from the experience of personal loss (the selection hypothesis).

In all our analyses we controlled for life satisfaction, social support, social class, and negative life events, because previous

research indicates that they may be related to both fear of death and religiousness and may, therefore, affect the relation between these two variables (Cicirelli, 2002; Ellison & Levin, 1998; Fortner & Neimeyer, 1999, Levin & Chatters, 1998; Loretto & Templar, 1986). On the basis of prior research with older adults, we did not expect gender or age in late adulthood, that is, being in one's late 60s versus mid-70s (Fortner & Neimeyer), to have an effect on the fear of death or dying.

METHODS

Participants

The data we used came from the Intergenerational Studies established by the Institute of Human Development (IHD) at the University of California, Berkeley in the 1920s. The original sample was a representative sample of infants born in Berkeley, California from 1928 to 1929 (the Berkeley Guidance Study), and of preadolescents (aged 10–12 years) selected from elementary schools in Oakland, California in 1931 and who were born between 1920 and 1921 (the Oakland Growth Study). Both samples were combined into a single study in the 1960s (Eichorn, 1981). The participants were studied intensively in childhood and adolescence and interviewed in depth four times in adulthood: in early adulthood (when they were in their 30s; interview conducted in 1958), middle adulthood (in their 40s; 1970), late-middle adulthood (in their 50s or early 60s; 1982), and late adulthood (in their late 60s or mid-70s; 1997–2000). At each interview phase, the participants also completed self-administered questionnaires.

Three hundred individuals took part in at least one of the three assessments conducted between early and late-middle adulthood. By late adulthood, 26% of these individuals had died. Of the remainder, 1% had become seriously cognitively impaired, 7% were noncontactable, and 5% declined to participate. Of the available participants (neither dead, noncontactable, nor severely cognitively impaired), 90% ($N = 184$) were interviewed in late adulthood. Prior analyses indicated very little bias caused by sample attrition other than a slight tendency for lower participation rates among individuals with lower levels of education (Clausen, 1993; Wink & Dillon, 2002).

In this study, the number of participants for analysis using data in late adulthood consists of 155 participants who, in addition to being personally interviewed, completed the self-report questionnaire that included the DAP. The number for longitudinal analyses involving data from middle adulthood is 142 participants. The number is smaller because not everyone who took part in the late-adulthood assessment participated in middle-adulthood testing. Our *t*-test comparisons of participants who completed the self-administered questionnaire in late adulthood ($N = 155$) with those who were personally interviewed but who did not complete a questionnaire ($N = 29$), and of participants for whom data were available both in middle and late adulthood ($N = 142$) versus those for whom we had data in late but not middle adulthood ($N = 42$), revealed no differences in religiousness, life satisfaction, social class, gender, or cohort.

In the current sample, 53% of the individuals are women and 47% are men; 36% were born in the early 1920s and 64% were

born in the late 1920s. All but 6 of the participants are White, reflecting the small fraction of non-Caucasians in the Bay Area in the 1920s when the sample was drawn. Forty-seven percent are college graduates, a figure that is substantially higher than for same-age Americans nationwide, approximately 20% (Smith, 2003), but slightly more typical of educational levels in California (Stoops, 2004). In late-middle adulthood, 59% of the participants (or their spouses) were professionals or executives in the upper middle class, 19% of the individuals were in the lower middle class, and 22% were in the working class. In late adulthood, 71% of the participants (85% of men and 55% of women) were living with their spouse or partner (paralleling same-age national census data of 77% of men and 53% of women; see Smith), and 69% of the sample's couple-households had an annual income over \$40,000—higher than the comparable figure (49%) for same-age married households nationwide (Smith). The study participants resided primarily in Northern (69%) or Southern (12%) California or in the Western or Southwestern United States (12%).

The majority of the individuals in the sample (73%) grew up in Protestant families (similarly, 68% of Americans born in the 1920s are Protestant); 16% grew up Catholic, 5% grew up in mixed religious households, and 6% came from nonreligious families. In late adulthood, 45% of the participants reported weekly church attendance, and 81% said that religion was important in the lives. These figures closely parallel national polls; 52% of Americans in the 65-to-74 age category attend church weekly, and 90% say that religion is important in their lives (Gallup & Lindsay, 1999). Of the participants, 49% self-identified as Republican, 30% as Democrat, and 21% as independent; this distribution closely approximates political affiliation data for mainline Protestants in the Pacific region, where the respective percentages are 51%, 36%, and 18% (Wink et al., 2005). In sum, with the exception of race, higher education, and income, the religious and other social characteristics of the sample closely resemble similarly aged Americans.

Measures

Fear of death and fear of dying.—We assessed fear of death and fear of dying with the DAP (Gesser et al., 1987–1988), administered to the IHD participants in late adulthood. The version of the DAP we used consisted of four subscales, including a subscale measuring the fear of death and dying. In a subsequent revision of the DAP, Wong and colleagues (1994) eliminated from the modified Fear of Death subscale those items that had to do with fear of dying, because they realized that these two fears tap different constructs. In order to separate fear of death from fear of dying, we factor analyzed the seven items of the original Fear of Death and Dying subscale of the DAP by using a varimax rotation. As we expected, we found two orthogonal factors accounting for 64% of the cumulative variance (see Table 1). The first factor consisted of four items measuring fear of death, and the second factor consisted of three items assessing fear of dying. We combined each set of items into a Fear of Death scale (Cronbach's $\alpha = .81$) and a Fear of Dying scale (Cronbach's $\alpha = .70$). The correlation between the two scales was $r(155) = .39$ (see Table 2).

Table 1. Factor Analysis of the Fear of Death and Dying Subscale of the DAP

DAP Item	Factor	
	I	II
Fear of death		
8. I find it difficult to face up to the ultimate fact of death.	.83	.12
17. I am disturbed when I think of the shortness of life.	.82	.02
20. The prospect of my own death arouses anxiety in me.	.80	.25
10. I worry about an untimely death.	.63	.38
Fear of dying		
7. I fear dying a painful death.	.12	.90
14. I fear dying a slow death.	.11	.82
3. I am worried about dying a violent death.	.19	.56

Notes: DAP = Death Attitudes Profile; $N = 157$. Boldface numerals signify highest factor loadings.

Religiousness.—Two raters independently coded religiousness on a 5-point scale by using responses to structured open-ended questions on religious beliefs and practices from transcripts of interviews conducted with the participants at each time point. A score of 5 indicated that religious beliefs (e.g., belief in God and afterlife) and practices (e.g., church attendance and prayer) played a *central* role in the respondent's life. A score of 3 indicated that religious beliefs and practices had *some* importance in the individual's life; a score of 1 indicated that religion played *no part* in the life of the individual. In this study we used religiousness scored from interviews conducted in middle and late adulthood.

The kappa index of reliability for the two sets of ratings of religiousness was $\kappa = .63$ for middle adulthood, and $\kappa = .72$ for late adulthood ($p < .001$, all values). The intercorrelation between the measures of religiousness in middle and late adulthood was $r(142) = .80$. In late adulthood, the 5-point religiousness scale correlated highly with church attendance, $r(155) = .86$, $p < .001$, and intrinsic religiosity, $r(155) = .74$, $p < .001$, as assessed by the self-report Religion Index for Psychiatric Research by Koenig, Parkerson, and Meador (1997).

Belief in a rewarding afterlife.—We assessed belief in a rewarding afterlife with the 5-point Approach-Oriented Death

Acceptance subscale of the DAP (Gesser et al., 1987–1988), which consists of four items assessing the view that death is a passageway to a happy afterlife (e.g., “I see death as a passage to an eternal and blessed place,” “I look forward to a life after death,” “I believe that I will be in heaven after I die,” and “I believe heaven will be a much better place than this world”); Cronbach's $\alpha = .91$). In late adulthood, the intercorrelation between our measures of religiousness and belief in afterlife was $r(157) = .67$; $p < .001$.

Background variables.—We measured life satisfaction with the 5-point Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; Cronbach's $\alpha = .90$). We measured social support with the Lubben Social Network Scale (Lubben 1988), a 10-item self-report scale that assessed the number of family members and friends in the individual's social network, the frequency of social contact, whether the person had a confidant, and whether the person lived alone or with others (Cronbach's $\alpha = .63$). The measure of negative life events was the summed score of the following six (self-reported) events that had occurred in the 15 years prior to the interview: death of spouse, child, and close friend, and major illness of self, spouse, and child. We scored all of the background variables in late adulthood.

We measured gender with a 1/0 dummy variable (1 = female, 0 = male). We measured cohort with a 1/0 dummy variable (1 = belonging to the older age group, born 1920–1921; 0 = belonging to the younger age group, born 1928–1929). We assessed social class with the 5-point Index of Social Class (Hollingshead & Redlich, 1958) on the basis of the occupation of the participant or spouse (whichever was highest) prior to retirement.

RESULTS

Relations Among the Study's Variables in Late Adulthood

As shown in Table 2, fear of death was unrelated to religiousness but correlated negatively with religiousness squared. (We first centered and then multiplied scores on the religiousness scale to obtain the measure of religiousness squared.) As shown in Figure 1, the curvilinear relation reflected the finding that individuals who scored moderately on religiousness were afraid of death the most. Participants who scored high on religiousness feared death the least, and those

Table 2. Intercorrelations of Fear of Death and Dying With Religiousness and Background Variables in Late Adulthood ($N = 155$)

Variables	1	2	3	4	5	6	7	8	9	10
1. Fear of death	—									
2. Fear of dying	.39**	—								
3. Religiousness	-.07	.06	—							
4. Religiousness squared	-.21*	.00	.60**	—						
5. Life satisfaction	-.20*	-.10	-.17*	.11	—					
6. Social support	.03	.08	.25**	.12	.46**	—				
7. Negative life events	.12	.00	-.07	-.03	-.22**	-.02	—			
8. Social class	.08	.06	-.06	-.05	.34**	.26**	.05	—		
9. Gender	.00	.11	.29**	.10	-.08	.01	.09	-.04	—	
10. Cohort	-.07	-.17*	.00	.01	.10	.04	.25**	.04	-.03	—

Notes: Pearson correlation was used to calculate the relation among variables 1 to 8; point-biserial correlation was used to calculate the relation between gender and cohort (dichotomous variables) and variables 1 to 8; polychoric correlation was used to calculate the relation between gender and cohort.

* $p < .05$; ** $p < .01$.

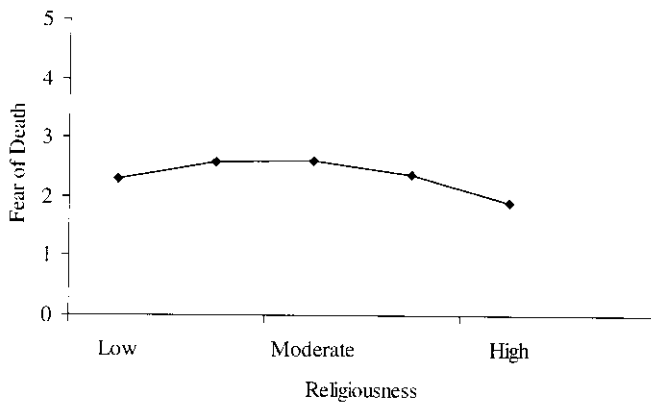


Figure 1. Predicted values of fear of death by religiousness in late adulthood.

who scored low on religiousness fell in between the moderate and high religiousness groups. The only significant correlation for fear of dying was a negative relationship with cohort, indicating that older participants (those in their mid-70s) feared the process of dying less than did younger participants (in their late 60s). It was noteworthy that, in turn, cohort related positively to negative life events, meaning that older participants experienced higher rates of bereavement and illness than younger participants. Religiousness correlated positively with life satisfaction, social support, and being female.

Regressions Predicting Fear of Death and Dying

We used a linear regression to predict fear of death in late adulthood from dependent variables in late adulthood. As shown in Table 3 (Model 1a), religiousness squared, life satisfaction (negative relation), and (high) social class were the three significant independent predictors of fear of death. The overall model accounted for 12% of the variance. We obtained the same result when we regressed fear of death in late adulthood on measures of religiousness in middle adulthood (see Model 1b).

In late adulthood, fear of dying was predicted by cohort (participants in their mid-70s were less afraid than those in their late 60s) and life satisfaction (negative relation)—both significant at a trend level (see Model 2a). The R^2 for the overall model was not significant. Cohort and life satisfaction were significant predictors of fear of dying in Model 2b, where religiousness in middle adulthood was substituted for religiousness in late adulthood. The findings remained unchanged in analyses regressing fear of death and fear of dying on religiousness scored in late-middle adulthood (aged mid 50s or early 60s; data are not shown but are available from the authors).

Testing the Inconsistency Hypothesis

In order to test the hypothesis that fear of death in late adulthood was related to inconsistency between religiousness and self-reported belief in a rewarding afterlife, we recomputed the analysis regressing fear of death on predictors scored in late adulthood (Model 1a); we substituted belief in afterlife and the interaction of Religiousness \times Afterlife in place of religiousness squared. (We obtained the interaction term by first centering measures of religiousness and belief in a rewarding afterlife and

Table 3. Standardized Beta Coefficients for Linear Regressions Predicting Fear of Death and Dying in Late Adulthood From Religiousness in Middle and Late Adulthood and Background Variables

Predictors	Fear of Death		Fear of Dying	
	Model 1a	Model 1b	Model 2a	Model 2b
Gender	-.04	-.02	.08	.06
Cohort	-.07	-.08	-.16*	-.18**
Social class	.16**	.15*	-.09	.10
Life satisfaction	-.24**	-.26**	-.17*	-.23**
Social support	.04	.01	.13	.09
Negative life events	.10	.11	.00	.00
Religiousness in late adulthood	.13	—	.04	—
Religiousness in late adulthood squared	-.26**	—	.03	—
Religiousness in middle adulthood	—	.14	—	.12
Religiousness in middle adulthood squared	—	-.22**	—	-.06
<i>df</i>	8,147	8,134	8,147	8,134
R^2	.12**	.12**	.07	.10*

* $p < .10$; ** $p < .05$; two-tailed.

then multiplying them). In this new model, the interaction term (standardized $\beta = -.34$, $p < .001$)—but not religiousness (standardized $\beta = .01$, *ns*) or belief in a rewarding afterlife (standardized $\beta = -.14$, *ns*)—was a significant predictor of fear of death. For the overall model, $R^2 = .15$. As shown in Figure 2, the Religiousness \times Belief in a Rewarding Afterlife interaction was significant because, as we hypothesized, individuals who scored high on belief in a rewarding afterlife but low on religiousness feared death more than those individuals who scored high on both belief in a rewarding afterlife and religiousness and those who scored low on both measures. In addition, participants who scored high on both belief in a rewarding afterlife and religiousness were less afraid of death than those who scored low on both measures. Although the interaction terms in the analysis model are based on the full range of scores on religiousness and belief in an afterlife, our sample contained very few individuals who rated relatively high on religiousness and relatively low on belief in an afterlife. Because of this sparse "cell" in our sample, we are hesitant to make inferences about the relation of religiousness, belief in

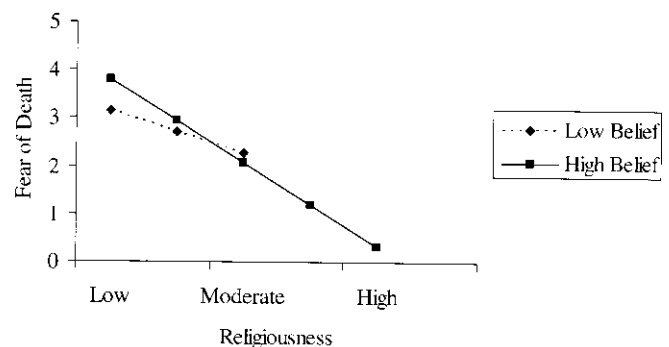


Figure 2. Predicted values of fear of death by religiousness and belief in afterlife in late adulthood.

an afterlife, and fear of death for this type of individual; therefore, we do not show the predicted values for these individuals in the figure.

DISCUSSION

This study has three main findings. The first concerns the concurrent, and the second the longitudinal, relations between religiousness and fear of death in late adulthood. The third finding pertains to characteristics related to fear of dying in late adulthood. First, our study did not find a linear negative relation between fear of death in late adulthood and religiousness in late or middle adulthood (contrary to Hypothesis 1). In other words, we did not find support for the view that highly religious individuals feared death the least, that those who were not religious feared death the most, or that those who were moderately religious fell in between. This was the case even though in previous research using the IHD data we found that religiousness increased significantly from middle to late adulthood (Wink & Dillon, 2001). Although it is commonly assumed (see e.g., McFadden, 1996) that such an increase is driven in part by a concern over mortality, our data suggest that religiousness in late adulthood is not a stronger predictor than religiousness in middle adulthood of fear of death in late adulthood.

We did, however, find support for a second hypothesis postulating the presence of a more complex relation between fear of death and religiousness. A significant curvilinear relation indicated that moderately religious individuals feared death more than individuals for whom religion played either a central or a marginal role in life. The fact that the moderately religious individuals were the ones who were most afraid of death accounts for the absence of a linear association between religiousness and fear of death.

In addition, we found that participants who scored high on belief in a rewarding afterlife but relatively low on religiousness reported the highest fear of death. Fear of death, therefore, was particularly characteristic of individuals whose belief in a rewarding afterlife was not matched by their other religious beliefs and practices. In addition, individuals who scored high on both belief in a rewarding afterlife and religiousness were less afraid of death than individuals who scored low on both. According to Leming (1979–1980), who found a similar pattern of results, individuals who are consistently high in religiousness fear death the least because they construe death as personally meaningful and derive additional comfort from the prospect of being reunited after death with people who were close to them. Nonreligious individuals, Leming argued, fear death more than highly religious individuals because they are not equally protected against the anxiety associated with the prospect of being separated from family and friends by death.

Taken together, these findings, supporting the second hypothesis, suggest that individuals who do not have a definite (either religious or secular) view of mortality as suggested by a moderate or lukewarm religious engagement or a disjunction between religious beliefs and practices are particularly vulnerable to fear of death in late adulthood. Conversely, the presence of a firm view in regard to religion and the afterlife, irrespective of whether it emanates from a secular or sacred ideology, tends to buffer against fear of death. There are several

possible, and not mutually exclusive, explanations for this finding. From a religious perspective, lukewarm or inconsistent religious engagement may heighten doubts about an afterlife or raise the specter of punishment after death without hope for salvation. From a psychological perspective, the absence in old age of a well-formulated philosophy of death (either religious or secular) may reflect a fragile sense of the self or an ambivalence that is indicative of chronic anxiety. From a sociological perspective, it may indicate a more general state of anomie and a lack of attachment to social institutions. In considering these possible explanations, we should note that the significant curvilinear relation between fear of death and religiousness was present after a number of potential confounds were controlled. The finding could not be explained, therefore, by the fact that, for example, religiousness was related positively to life satisfaction, which in turn related negatively to fear of death, or by the positive relation between religiousness and social support. Irrespective of the underlying causes, it is important to keep in mind that many Americans manifest the kind of disjunction between religious beliefs and practices that we have found to be associated with an elevated fear of death in old age. From the perspective of health practitioners, if our findings are replicated in other studies, this group of individuals may benefit from clinical intervention.

The second main finding of this study is that we were able to replicate the curvilinear relation between fear of death and religiousness in late adulthood by using a measure of religiousness in middle adulthood (an interval of 25 years). This means that individuals who were high or low in religiousness in their 40s tended to be less afraid of death in their late 60s to mid-70s than those who were moderately religious in their 40s. Knowing a person's level of religiousness in middle adulthood was thus as good a predictor of fear of death in late adulthood as his or her score on religiousness obtained in late adulthood. The mechanism underlying this finding was the high consistency or rank order stability of individual religiousness throughout adulthood. As reported in the Methods section, the correlation between religiousness in middle and late adulthood was $r = .80$, which means, especially when the result is corrected for error in measurement, that few of our participants showed a sudden drop or increase in their religious involvement. Thus a person who was highly or not religious in his or her 40s was likely to show less fear of death as an older adult than a person who was moderately religious because he or she tended to continue being highly or not religious throughout the second half of adult life. Our finding of high rank order stability of religiousness supports studies indicating that negative stressors associated with aging do not have a significant effect on religious involvement (see George et al., 2002). This was indicated by both the stability of religiousness over time and the lack of a positive relation between religiousness and negative life events in late adulthood.

Third, although in late adulthood the fear of death and the fear of dying were moderately intercorrelated, we did not find any relation (linear or curvilinear) between fear of dying and religiousness. The main significant predictor of fear of dying was age cohort, as older participants (in their mid-70s) had less fear of dying than their younger peers (in their late 60s). Because older study participants experienced more negative life events (bereavement and illness), it is likely that this helped them to habituate or develop a more differentiated view of the

process of dying. The fact that the fear of dying, and fear of death, were related negatively to life satisfaction suggests that concern about the process and finality of death may reflect a general feeling of dissatisfaction (Fortner & Neimeyer, 1999).

Finally, in this study we restricted our measure of religiousness to involvement in traditional or institutionalized religious beliefs and practice. In other research we have also investigated the implications for psychosocial functioning of spiritual seeking, a more nonconventional form of religious engagement. The IHD data indicated that spirituality, just like religiousness, is associated with a number of indicators of positive aging, including generativity and involvement in a variety of purposeful activities (see Wink & Dillon, 2003). However, we found no evidence for a significant linear or curvilinear relation between spirituality and fear of death and dying in late adulthood (Wink, in press). A discussion of the reasons for this finding is beyond the scope of this article. Nonetheless, the fact that those who score high on (traditional) religiousness but not those who score high on spiritual seeking are protected against fear of death reinforces the importance of isolating the specific aspects of religious engagement that account for its buffering effect on death anxiety.

In conclusion, it is important to acknowledge the limitations of this study. The IHD sample consists of a relatively small number of men and women who, although representative of the population of San Francisco's East Bay in the 1920s, are predominantly White and mainline Protestant. Although as indicated, the religious and other social characteristics of the sample closely approximated national trends (with the exception of race, in particular), it is important for our results to be replicated with data from other long-term longitudinal studies and in samples with a greater range of religious denominations (including more religiously conservative participants) and non-Christian religious traditions. We also need to understand why some studies report a significant linear relation whereas others find a curvilinear relation between religiousness and fear of death. Are these differences in findings related to variability in religious denomination, religious ideology (liberal or fundamentalist), or level of fear of death? Or do they reflect differences in general demographic characteristics of the samples such as education and race? Our findings, nonetheless, add a new perspective to the ongoing investigation of the links between religiousness and fear of death and dying.

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