



Methods of Religious Coping with the Gulf War: Cross-Sectional and Longitudinal Analyses

Kenneth I. Pargament; Karen Ishler; Eric F. Dubow; Patti Stanik; Rebecca Rouiller; Patty Crowe; Ellen P. Cullman; Michael Albert; Betty J. Royster

Journal for the Scientific Study of Religion, Vol. 33, No. 4 (Dec., 1994), 347-361.

Stable URL:

<http://links.jstor.org/sici?sici=0021-8294%28199412%2933%3A4%3C347%3AMORCWT%3E2.0.CO%3B2-4>

Journal for the Scientific Study of Religion is currently published by Society for the Scientific Study of Religion.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/sssr.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

Methods of Religious Coping with the Gulf War: Cross-Sectional and Longitudinal Analyses

KENNETH I. PARGAMENT*

KAREN ISHLER*

ERIC F. DUBOW*

PATTI STANIK*

REBECCA ROUILLER*

PATTY CROWE*

ELLEN P. CULLMAN*

MICHAEL ALBERT*

BETTY J. ROYSTER*

Cross-sectional and longitudinal analyses were conducted to examine the relationship of religious and nonreligious coping methods to psychological distress among college students in the 1990-91 Gulf War crisis. Students completed measures of religious coping, nonreligious coping, and specific (war-related) and global psychological distress two days prior to the allied ground assault of Kuwait and one week after hostilities were suspended against Iraq. Religious coping activities were significant predictors of psychological distress cross-sectionally and longitudinally. Religious avoidant coping was associated with increased distress. Surprisingly, pleading for a miracle was tied to reduced distress over time. While religious and nonreligious coping were associated with each other, the two were not functionally redundant; each set of coping methods contributed unique variance to the prediction of distress. Differences between the cross-sectional and longitudinal findings suggest that stressful experiences may serve as a religious coping mobilizer and/or that the efficacy of religious coping methods may change over time. The results point to the need for finer-grained analyses of specific religious coping mechanisms in specific life situations.

INTRODUCTION

In the first few weeks of February 1991, the United States and its allies were poised on the brink of a military assault on Kuwait to expel the armed forces of Iraq that had invaded the small Arab country five months earlier. For several weeks, speculation had been rising about when the attack would begin, how long the war would last, and what toll it would take on the lives of those in the military and their loved ones. This was an anxious period for people in the United States, many of whom had family members and/or friends serving in the military. Clearly this was a time that called for coping.

Our research group took advantage of a negative situation by studying the coping process as the Gulf War unfolded. An event with an uncertain, uncontrollable, and potentially disastrous outcome, the Gulf War seemed likely to elicit attempts to cope religiously as well as nonreligiously. In this vein, a number of studies have shown that religion is often in-

* Kenneth I. Pargament and Eric F. Dubow are professors of psychology at Bowling Green State University. Betty J. Royster, deceased, was assistant professor of psychology at the same institution. The other co-authors are graduate students in psychology at Bowling Green State University. Requests for reprints should be addressed to the first author at the Department of Psychology, Bowling Green State University, Bowling Green, OH 43402.

volved in dealing with stressful situations (e.g., Koenig, George, and Siegler 1988; Lindenthal, Myers, Pepper, and Stein 1970; McRae 1984). Less clear, however, is the helpfulness of religious *coping* in stressful times. Although several studies suggest that religious coping is associated with less psychological distress (see Pargament 1990), much of this research is retrospective in design, with participants reporting *back* on their coping efforts and then evaluating their present levels of adjustment. The recollections of these participants could have been distorted and the results could have been biased by the desire of some to paint a favorable portrait of religion in the coping process. In addition, most of the research in this area has relied on brief measures of religious coping or generic measures of religiousness (e.g., church attendance, religious salience, frequency of prayer, intrinsic commitment) that do not specify what it is about religion that may be helpful or harmful in coping.

The Gulf War provided an opportunity to respond to some of these problems. Rather than study coping retrospectively, we examined coping in the midst of the stressful situation. Rather than relate coping to distress levels at the same point in time alone, we examined the relationship of religious coping to current distress and to changes in distress over two points in time. Finally, rather than measure religion generically, we assessed several different, specific, and concrete methods of religious coping with the Gulf War.

With these improvements in design, we focused on three sets of questions about the efficacy of religion in coping.

First, many people report that their religious beliefs and practices are helpful to them in stressful times (e.g., Fewell 1986; Stouffer et al. 1965). However, it is unclear whether they are reporting the actual *effects* of religion or the positive attitudes they hold toward religion more generally. Some investigators have examined the correlates of religion through more controlled study. With some exception (e.g., Plante and Manuel 1992; Rosenstiel and Keefe 1983), generic measures of religiousness (e.g., self-rated religiousness, frequency of church attendance) have been associated with signs of lower levels of distress among a variety of groups: less fear of death among terminally ill cancer patients (Gibbs and Achterberg-Lawlis 1978), fewer grief-related problems among bereaved parents (Bohannon 1991), and less depression among older patients recovering from hip surgery (Pressman, Lyons, Larson, and Strain 1990).

Although religiousness may be helpful to many people in coping, it is unclear what makes it so. Generic measures of religiousness do not specify what it is about congregation attendance, religious salience, or prayer that may be helpful or harmful. In one attempt to go beyond the generic approach, Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma, and Warren (1990) developed several scales to measure different kinds of situation-specific religious coping mechanisms. Working with a sample of mainstream Christian church members faced with significant negative life events, they found that positive outcomes were tied to several specific religious coping strategies: benevolent religious appraisals of the event, the experience of God as a supportive partner in coping, involvement in religious rituals and good deeds, and the search for spiritual and personal support through religion in the time of need. Furthermore, situation-specific religious coping predicted the outcomes of the events more strongly than did a battery of generic religious measures (e.g., intrinsic, extrinsic, doctrinal orthodoxy). Thus, the first goal of the present study was to examine whether religious coping methods predict levels of distress in the Gulf War and, if so, to identify the kinds of religious coping activities that are particularly helpful or harmful.

Second, although religious involvements of various kinds may be associated with the outcomes of coping, it is uncertain whether religion is, in fact, adding something unique to the prediction of these outcomes. Perhaps it is enough to understand the individual's general approach to coping without specification of the religious dimension. The associations of religious coping efforts to adjustment may be *functionally redundant* with the relationships of general coping strategies to adjustment. For example, the feeling of spiritual support in

coping may be nothing more than a specific form of general social support, and the former may offer little beyond the latter to the prediction of outcomes. Inconsistent with this notion, Pargament et al. (1990) found that religious coping activities predicted the outcomes of negative events above and beyond the effects of nonreligious coping activities. However, their sample was made up exclusively of church members. Whether religion adds a unique dimension to the coping efforts of a broader sample is unclear. Thus, the second goal of the present study was to examine the relationship between religious and nonreligious coping methods and to consider whether religious coping contributes independently to the prediction of Gulf War distress.

Third, with some exceptions (e.g., McIntosh, Silver, and Wortman 1993; Park, Cohen and Herb 1990; Williams, Larson, Buckler, Heckman, and Pyle 1989), the research in this area has tended to rely on retrospective designs in which people are asked to recall how they coped with a stressful event that occurred earlier or on cross-sectional designs in which both religious coping and outcomes are measured at the same point in time. While it seems logical to assume that religious coping *affects* one's adjustment to negative events, there are other possibilities. People who report better outcomes may be more likely to look favorably on religion in retrospect. In essence they may construct a story in which responsibility is attributed to religion for the good things that happened. Another possibility is that the correlation between religious coping and outcome is spurious, attributable to some third variable. For example, people with higher levels of initial adjustment may be more likely to report both better outcomes and higher levels of religious coping. Longitudinal designs that follow people through a coping episode would provide a stronger test of the impact of religious coping by eliminating the need for retrospective reports and controlling for initial levels of distress. Thus, the third goal of the present study was to examine whether religious coping methods predict *changes* in Gulf War distress over time.

Psychological adjustment has been conceptualized and measured in various ways in the coping literature, ranging from general dispositional constructs such as self-esteem and trait anxiety to distress levels tied more closely to the specific stressor (e.g., anxiety, depression, mood changes). Coping researchers have recommended that measures of coping effectiveness be obtained at a level of analysis comparable to the measures of coping themselves (e.g., Menaghan 1983). If situation-specific coping is the focus, as in the present study, then coping outcomes should be tied to the specific situation rather than to more general personality variables or dispositions. Thus, the focus here is on psychological distress. Two measures of distress (positive and negative affect) specifically related to the Gulf War were used to assess coping effectiveness. In addition, to allow for comparisons of results across studies, a measure of global distress, one not specifically tied to the Gulf War, but nevertheless still potentially sensitive to its effects, was also used.

To summarize, we focused on three sets of questions in this study:

- (1) Do religious coping methods predict levels of distress in the Gulf War? If so, what kinds of religious coping methods are particularly helpful or harmful?
- (2) What is the relationship between religious coping methods and nonreligious coping methods? Do religious coping methods contribute independently to the prediction of distress in the Gulf War?
- (3) Finally, do religious coping methods predict changes in levels of distress in the Gulf War over time?

METHOD

Subjects and Procedures

Students who were enrolled in two introductory psychology courses were asked to participate in the present study. Subjects received experimental credit for participation: 247 students, approximately 70% of those contacted, volunteered to participate, and 215 completed the entire survey at both points in time. The first survey (T1) was administered on February 20, 1991, approximately two months after the onset of the air war, and two days before the allied coalition initiated its ground assault of Kuwait. This was the period of maximum threat and tension with a great deal of uncertainty about the strength of Iraqi defenses and the loss of life that U.S. military personnel might suffer. The second survey (T2) was administered on March 11, 1991, one week after the allied coalition suspended hostilities with Iraq. This was a period of euphoria in the United States when people were celebrating the quick military triumph over Iraq at relatively low cost in terms of the lives of U.S. military personnel and those of its allies.

Sample Characteristics

Of the 215 undergraduate students who completed the two surveys, 33% of the subjects were male, and 67% were female. The mean age of the sample was 19.5 years. Eighty-seven percent of the sample was white and most of the sample were freshmen.

With respect to their religious behavior, 56% of the subjects identified their current religious affiliation as Protestant, 34% as Catholic, 2% as other, and 8% as none. Before the war, 25% reportedly never attended church, 46% attended church from once to three times a month, and 29% attended church four or more times a month. On a five-point scale of self-rated religiousness, subjects rated themselves as a three on average (moderately religious).

Measures

Students completed measures of three dimensions: coping activities, global and specific distress, and war-related involvement and activities. The measures of coping activities and war-related activities were administered at Time 1 only. The measures of distress were administered at Times 1 and 2.

Coping methods. Scales were included to assess both religious and nonreligious coping methods. Subjects were asked to indicate the degree to which they used the various religious and nonreligious coping activities to deal with the Gulf War over the past month.

Religious coping methods. Pargament et al.'s (1990) factor analytically-derived Religious Coping Activities scales measured various types of religious coping when faced with negative events. Subjects rated the degree to which they used diverse religious coping activities to cope with the Gulf War over the past month on a four-point response scale ranging from 1 (Not at all) to 4 (A great deal). The six scales demonstrated satisfactory internal consistency in this study: (a) Spiritually Based coping ($\alpha = .94$); (b) Good Deeds ($\alpha = .86$); (c) expressions of Discontent ($\alpha = .65$) with God, church, or one's faith; (d) Interpersonal Religious Support ($\alpha = .72$) by the clergy or church members; (e) Plead ($\alpha = .82$) which involves pleading for miracles, making bargains with God, and questioning God about the event; and (f) Religious Avoidance ($\alpha = .71$), which involves the use of religion as a diversion from a problem. Pargament et al. (1990) reported lower internal consistency estimates on the Plead ($\alpha = .61$) and Religious Avoidance ($\alpha = .61$), scales which may have been due, at least in part, to the small number of items (three) on each scale. We attempted to improve the internal consistency of these scales in this study by

adding two items to the Plead scale ("Pleaded with God to make things turn out okay" and "Begged for God's help") and one item to the Religious Avoidance scale ("Let God worry about the problem for me").

Nonreligious coping methods. General coping activities of a nonreligious nature were measured by 32 items from Moos, Cronkite, Billings, and Finney (1986). Using a four-point response scale ranging from 1 (No) to 4 (Fairly often), subjects rated the degree to which they used each of the items *to cope with the Gulf War over the past month*. Coping responses were summed to form three scales that demonstrated adequate internal consistency, except for the avoidance scale: active-cognitive coping (e.g., Went over the situation in my mind to try to understand it) ($\alpha = .79$), active-behavioral coping (e.g., Tried to find out more about the situation) ($\alpha = .69$), and avoidance coping (e.g., Avoided being with people in general) ($\alpha = .48$).

Some evidence for the validity of these scales comes from prior research in which both religious and nonreligious coping activities scales were significant predictors of recent mental health status, event-specific outcomes, and religious outcomes of critical life events among a community sample of mainstream church members (Pargament et al. 1990).

Gulf-War Related Involvement and Activities. Subjects were also asked to complete questions that were directly tied to the war situation. One set of questions focused on whether family or friends were in the military or serving in the Persian Gulf. Another set of questions focused on the students' levels of participation in several Gulf War-related activities such as rallies in support of the war, writing letters to soldiers, and purchasing or displaying a U. S. flag. Another question asked students to rate their feelings toward the Gulf War from strongly approve (1) to strongly disapprove (5).

Distress. Two measures of situation-specific distress and one measure of global distress were used.

Specific Distress: The PANAS scales: The Positive Affectivity and Negative Affectivity Schedules developed by Watson, Clark, and Tellegen (1988) were adapted to measure affective distress in response to the Gulf War. Subjects rated their *feelings about the Gulf War* in the past month on two 10-item scales, one representing positive affect and the other negative affect. Responses were made on a five-point scale ranging from 1 (very slightly or not at all) to 5 (a great deal). Generally, Positive Affectivity reflects lower levels of distress (the extent to which one feels energetic, active, and alert) and Negative Affectivity reflects higher levels of distress (the extent to which one feels aversive mood states).

The PANAS Scales evidenced good internal consistency at Time 1 (Positive Affectivity $\alpha = .83$; Negative Affectivity $\alpha = .86$) and at Time 2 (Positive Affectivity $\alpha = .88$; Negative Affectivity $\alpha = .89$). The scales have been significantly correlated with other measures of distress, including the Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, and Covi 1974), the Beck Depression Scale (BDI; Beck, Ward, Mendelson, Mock, and Erbaugh 1961), and the State-Trait Anxiety Inventory State Anxiety Scale (A-State; Spielberger, Gorsuch, and Lushene 1970).

Global Distress: General Health Questionnaire (GHQ - 12): The GHQ is a 12-item scale that assesses recent psychological distress (Goldberg 1978). Subjects were asked to indicate how often *in the past month* they had experienced each item (e.g., lost much sleep over worry) using a four-point response scale ranging from 1 (less so than usual) to 4 (much more than usual). Five items are worded positively and seven items are worded negatively to control for response bias. Higher scores suggest higher levels of distress. Internal consistency for GHQ - 12 was good at both points in this study (Time 1 $\alpha = .81$; Time 2 $\alpha = .83$). The scale has discriminated psychological distress levels among workers, recent school drop-outs, and unemployed men (Banks, Clegg, Jackson, Kemp, Stafford, and Wall 1980). Although this scale is not specifically tied to the Gulf War, it is sensitive to the emotional ups and downs that accompany major life stressors.

RESULTS

Overview

The analyses will be presented in four sections. First, the sample will be described in terms of its levels of involvement in the Gulf War and levels of specific and global distress at the two points in time. Next, multiple regression analyses will be examined that explore whether religious coping methods predict distress at Time 1 and, if so, in what ways. In the third section, additional correlational and regression analyses will focus on the relationship between religious and nonreligious coping methods and whether religious coping makes a unique contribution to the prediction of distress. Finally, multiple regression analyses will be examined to see whether religious coping predicts *changes* in distress from Time 1 to Time 2.

Levels of Involvement in Gulf War and Levels of Distress

To what degree were these students involved in and affected by the Gulf War? Although almost all of the students in this study were United States citizens and uninvolved in military service, several indicators suggested that many were at least indirectly affected by the war. When asked whether they had any family members who would be affected if the draft were reinstated, 61.4% responded "yes." Similarly, when asked the same question about any close personal friends who would be affected by a draft, 96.7% responded positively. Approximately 29% of the subjects had family members who were currently in the U.S. Armed Services, with 50% of those family members currently serving in the Persian Gulf; 82.3% had a close personal friend who was a member of the U.S. Armed Services, with 76% of those friends serving in the Gulf.

Since the outbreak of the war, significant percentages of students participated in a variety of activities ranging from prayer vigils related to the war (17.8%) and writing letters to soldiers (43%) to purchasing and/or displaying a yellow ribbon (62.6%) or U.S. flag (66.5%). Attitudes toward the war were generally positive. When asked to rate their feelings toward the war on a scale of 1 to 5, ranging from "strongly approve of U.S. involvement (1)" to "strongly disapprove of U.S. involvement (5)," the mean of the subjects was 2.11.

We expected that signs of distress would decrease over the two time periods. A series of repeated-measures ANOVAs was performed to examine longitudinal changes in these measures. The results supported our prediction. The sample showed a significant increase in Positive Affectivity from Time 1 ($Mn = 31.41$; $SD = 7.50$) to Time 2 ($Mn = 34.49$; $SD = 8.41$) ($F[1,214] = 39.00$, $p < .001$) and a significant decline in Negative Affectivity from Time 1 ($Mn = 24.69$; $Sd = 7.94$) to Time 2 ($Mn = 17.97$; $SD = 7.44$) ($F[1,214] = 209.46$, $p < .001$). GHQ scores also declined significantly from Time 1 ($Mn = 30.72$; $SD = 4.90$) to Time 2 ($Mn = 29.39$; $SD = 5.02$) ($F[1,214] = 14.59$, $p < .001$), indicating reduced levels of global distress.

Religious Coping Methods as Predictors of Distress

To determine whether the religious coping methods predicted distress related to the Gulf War, we employed a hierarchical regression model. Equations were developed for each of the distress measures at Time 1 and the religious coping activities serving as predictors. The effects of potentially confounding demographic variables were controlled in these analyses. To select these demographic variables, we examined the correlations of the three measures of distress with variables that have been associated with distress in the literature: age, gender, mother and father's level of education, marital status, number of years in school, religious affiliation, and race. Only gender and number of years in school were related consis-

tently and significantly to the three distress measures. We also examined the relationship of distress to one of the most widely used generic measures of religious commitment, Feagin's (1964) Intrinsic Religiousness scale. This measure was not significantly correlated with the Positive Affect ($r = .10$, N. S.), Negative Affect ($r = .06$, N. S.), or GHQ ($r = -.06$, N. S.) and thus was not included in the regression analyses. To control for the potentially confounding effects of gender and number of years in school on the relationship between religious coping activities and distress, these demographic variables were entered as predictors of distress in the first step of the regression equation. In the second step, the resulting residualized distress variable was regressed on the religious coping activities. The results of the second step of these analyses are presented in Table 1 as Set A.

TABLE 1

COMPARISON OF RELIGIOUS COPING AND NONRELIGIOUS COPING VARIABLES IN ABILITY TO PREDICT TIME 1 DISTRESS MEASURES ABOVE DEMOGRAPHIC VARIABLES^a

Set of Regression Predictor Variables	Time 1 Distress Variables					
	Positive Affectivity		Negative Affectivity		GHQ ^b	
	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta
Set A: Religious Coping Variables	.08		.23		.09	
Spiritually based		.14		.00		-.17
Good Deeds		.14		.21**		.13
Discontent		.00		.27***		.14
Religious Support		.17*		-.01		-.11
Plead		-.12		.25***		.21*
Religious Avoidance		-.09		-.16		-.08
F value (df = 6,214)		F = 3.07**		F = 10.52***		F = 3.63**
Set B: Nonreligious Coping Variables	.17		.25		.03	
Active-Behavioral		.32***		.09		-.05
Active-Cognitive		.12		.28***		.03
Avoidance		-.11		.26***		.18*
F value (df = 3,214)		F = 14.52***		F = 23.73***		F = 2.21

^a The effects of Gender and Number of Years in School were removed from these analyses.

^b GHQ scale was coded such that high scale scores indicate poor health.

* $p < .05$

** $p < .01$

*** $p < .001$

The demographic variables were significant predictors of the three outcome measures, with Gender emerging as the most consistent predictor. Females reported more distress than males at Time 1 on each of the three measures. Number of Years in School was positively associated only with Positive Affectivity. The two demographic variables accounted for between 4% and 12% of the variance in the distress measures.

The religious coping variables, as a group, were significant predictors of each of the three Time 1 distress measures; they accounted for modest to moderate amounts of unique variance beyond the effects of the demographic variables (8 to 23%). The unique contributions of each religious coping method were examined by looking at the significance of the beta weights. Religious Support was significantly and directly associated with ratings of Positive Affectivity. Higher levels of Good Deeds, Discontent, and Plead religious coping were predictive of Negative Affectivity. Plead was also tied to poorer GHQ ratings.

The Relationship between Nonreligious and Religious Coping Methods as Predictors of Distress

Hierarchical regression analyses were also conducted to assess whether the nonreligious coping methods predicted distress to the Gulf War at Time 1. As in the analyses above, the demographic variables were entered into the first step of each equation. Each residualized distress variable was then regressed onto the set of nonreligious coping activities. The results of the second step of these analyses are shown in Table 1 as Set B.

The nonreligious coping activities were significant predictors of two of the three distress measures, accounting for 17% and 25% of the variance of Positive Affectivity and Negative Affectivity, respectively. Nonreligious coping was not significantly related to GHQ. Turning to the specific beta weights, Active-Behavioral coping was associated with Positive Affectivity. Active-Cognitive coping and Avoidance were tied directly to Negative Affectivity.

Pearson correlations were conducted to study the relationship between the religious and nonreligious coping methods. As can be seen in Table 2, the two sets of coping scales were generally moderately intercorrelated (*r*'s from .07 to .43; *Md r* = .24). The religious coping scales were more consistently associated with the active forms of nonreligious coping. Specifically, Active-Behavioral coping was significantly correlated with all types of religious coping activities. Active-Cognitive coping was related to every type of religious coping activity, with the exception of Discontent. However, only Discontent, Plead, and, Good Deeds were significantly correlated with Avoidance coping.

TABLE 2
PEARSON CORRELATIONS BETWEEN RELIGIOUS COPING ACTIVITIES
AND NONRELIGIOUS COPING ACTIVITIES

	Nonreligious Coping Activities		
	Active-Behavioral	Active-Cognitive	Avoidance
Religious Coping Activities			
Spiritually based	.27***	.43***	.07
Good Deeds	.33***	.40***	.17*
Discontent	.22***	.12	.30***
Religious Support	.24***	.24***	.13
Plead	.27***	.36***	.23***
Religious Avoidance	.23***	.36***	.09
	$\bar{X} =$		
	.26	.32	.16

* $p < .05$

*** $p < .001$

To test whether religious coping methods contributed unique variance to the prediction of distress, two sets of hierarchical regressions were conducted. In the first set of analyses, we examined the amount of variance religious coping activities contributed to the prediction of Time 1 distress over and above the effects of nonreligious coping and demographic variables. The second set of analyses reversed the order of the first; we studied the amount of variance nonreligious coping activities predicted in Time 1 distress above and beyond the effects of religious coping and demographic variables.

Both religious and nonreligious coping activities contributed small but significant unique portions of variance to the prediction of distress. Religious coping activities accounted for 6%, 11%, and 7% of the unique variance in Positive Affectivity ($F[6, 208] = 2.22, p < .05$), Negative Affectivity ($F[6, 208] = 4.26, p < .001$), and GHQ ($F[6, 208] = 2.80, p < .05$),

respectively. Nonreligious coping activities accounted for 13% of the unique variance in Positive Affectivity ($F[3,211] = 10.45, p < .001$) and 11% in Negative Affectivity ($F[3,211] = 8.38, p < .001$). However, nonreligious coping activities did not add significant variance to the prediction of GHQ beyond the effects of religious coping.

Religious Coping Methods as Predictors of Changes in Levels of Distress

To test whether religious coping methods were associated with changes in distress, hierarchical regression analyses were conducted in which the demographic variables and appropriate Time 1 distress measure were entered into the first step as predictors of the respective Time 2 distress measure. In the second step, the resulting residualized dependent variable was regressed onto the religious coping activities scales, yielding an estimate of the relationship between religious coping activities and changes in distress from Time 1 to Time 2. This procedure was repeated for each of the three distress measures. These results are presented in Table 3 under Set A.

TABLE 3
COMPARISON OF RELIGIOUS COPING AND NONRELIGIOUS COPING
VARIABLES IN ABILITY TO PREDICT TIME 2 DISTRESS MEASURES
ABOVE DEMOGRAPHIC VARIABLES AND TIME 1 VARIABLES^a

Set of Regression Predictor Variables	Time 2 Distress Variables					
	Positive Affectivity		Negative Affectivity		GHQ ^b	
	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta
Set A: Religious Coping Variables	.08		.02		.06	
Spiritually based		.13		-.24*		-.08
Good Deeds		-.10		.05		-.06
Discontent		-.07		-.04		.05
Religious Support		.08		.02		-.16*
Plead		.20**		.07		-.10
Religious Avoidance		-.11		.13		.21*
F value (df = 6,214)		F = 3.20**		F = .77		F = 2.32*
Set B: Nonreligious Coping Variables	.02		.00		.05	
Active-Behavioral		-.02		.01		-.03
Active-Cognitive		.13		-.06		-.20*
Avoidance		.01		-.01		.06
F value (df = 3,214)		F = 1.64		F = .32		F = 3.96**

^a The effects of Gender, Number of Years in School, and Time 1 distress variables were removed from these analyses.

^b GHQ scale was coded such that high scale scores indicate poor health.

- * $p < .05$
- ** $p < .01$
- *** $p < .001$

The religious coping variables significantly predicted changes in Positive Affectivity and GHQ, accounting for small portions of variance, 8% and 6% respectively. The set of religious coping variables did not predict changes in Negative Affectivity. Focusing on the specific religious coping predictors, Plead was significantly associated with an increase in Positive Affectivity. Religious Avoidance was tied to an increase in distress on the GHQ.

A set of analyses parallel to those described above was conducted to determine whether the nonreligious coping variables were related to changes in distress. These results

are shown in Table 3 under Set B. Nonreligious coping activities were not significantly associated with changes in Positive Affectivity or Negative Affectivity. However, they were tied to changes in GHQ, accounting for 5% of the variance. Active-cognitive coping was related to reduced global distress.

DISCUSSION

In this study, we attempted to take a close look at the effects of religious coping on levels of distress among college students faced with a stressful life experience. The 1990-91 Gulf War provided an appropriate context for this investigation. As an event that fell outside the personal control of the students and threatened to intrude on their lives and those of families and friends, the Gulf War represented the type of stressful situation that might elicit religious coping. By virtue of its quick military resolution, the Gulf War offered the additional opportunity to examine changes in distress as a function of religious coping.

One might wonder whether these students were indeed affected by the Gulf War. Was the Gulf War, in fact, a "stressor" for students going to college half way around the world? It appears that many of the students in this sample were at least indirectly affected by the war. Most reported that they had friends or family in the military and that they participated in patriotic activities. Furthermore, the level of distress declined from the period of maximum tension (two days before the ground assault of Kuwait) to the period of resolution (one week after the suspension of hostilities).

Questions could also be raised about how well these findings generalize to other stressful events. Certainly the Gulf War was unusual in some respects. Unlike the personal circumscribed life events more often studied in the stress and coping literature (e.g., loss of a loved one, illness, injury), the Gulf War was a global sociopolitical crisis that threatened simultaneously a large number of people. However, unusual as it may have been, the Gulf War was not a unique event. Increasingly modern society faces sociopolitical changes looming over the horizon threatening large numbers of people with loss — from the threat of widescale unemployment and economic dislocation to the potential for ecological disaster.

The fast and favorable resolution to the Gulf War also set it apart from many other crises. However, it is important to distinguish the external resolution of the event from the psychological resolution. While the event itself may have been resolved militarily, feelings of psychological vulnerability and preoccupation with the event may have remained. Given the way the Gulf War unfolded, these findings seem to be most generalizable to the role religious and nonreligious forms of coping play in the process of rebound and recovery from large-scale, uncontrollable life stressors.

RELIGIOUS COPING AS A PREDICTOR OF DISTRESS CROSS-SECTIONALLY AND LONGITUDINALLY

Religious coping was significantly tied to psychological distress associated with the Gulf War in both the cross-sectional and longitudinal analyses. After we controlled for the effects of demographic variables, the religious coping variables predicted modest to moderate amounts of variance in the three measures of distress at Time 1. Religious coping variables also predicted small but significant portions of variance in levels of distress on two of the three measures at Time 2, after we controlled for initial distress. The latter finding is particularly important since it shows religious coping to predict *changes* in levels of distress as well as concurrent levels of distress. These results suggest that the relationship of religious coping to distress is not simply a result of a retrospective bias (i.e., favorable reconstructions of religion's role in coping by those who experienced positive outcomes). Neither can the rela-

tionship be attributed to the confounding effects of demographic variables or differences in the initial levels of distress within the sample, since both were statistically controlled. How people coped religiously at the height of tension in the Gulf had significant implications for distress levels not only at that time, but subsequently.

Of course, the longitudinal effects were modest in size. Clearly, there are other important predictors of distress besides religious ones. However, the longitudinal statistical analyses are conservative in nature. Because the distress levels at Time 1 and Time 2 are highly intercorrelated, controlling for the effects of Time 1 distress in the longitudinal analyses makes it difficult to find significant results (Glyshaw, Cohen, and Towbes 1989). Thus, although the effects of religious coping were modest in magnitude, they should be taken seriously. That the religious coping variables predicted changes in distress levels more strongly than did the nonreligious coping variables lends further support to their importance.

These results are consistent with those of other studies that report significant relationships between general levels of religious commitment and involvement and various measures of psychological distress (e.g., anxiety and depression) following negative events (e.g., Bahr and Harvey 1979; Bohannon 1991; Carver, Scheier, and Weintraub 1989; Gibbs and Achterberg-Lawlis 1978). However, by using more differentiated scales of religious coping, we were able to focus more sharply on the *kinds* of religion that may be particularly helpful or harmful in coping. And, it should be added, measures of religious coping here and in other studies have predicted various facets of adjustment as strongly as or more strongly than more generic measures of religion (Hathway and Pargament 1990; McIntosh and Spilka 1990; Pargament, Kennell, Hathaway, Grevengoed, Newman, and Jones 1988; Park and Cohen 1993). Coupled with studies that show a direct relationship between generic religious orientations and religious coping activities (e.g., Pargament et al. 1992), these findings provide support for a model in which religious coping methods serve as mediators of the relationship between generalized religious approaches and the outcomes of negative events.

What is it about Religion that Makes a Difference?

As to the specific cross-sectional results, students who sought support from their clergy or fellow church members reported more positive mood than those who did not. This finding underscores the socially supportive role religious institutions and relationships can play in stressful times (Anson, Carmel, Bonneh, Levenson, and Maoz 1990; Sered 1989). On the other hand, religious discontent with God and the church, pleading for a miracle, and efforts to do good deeds and live a more religious life were associated with more negative mood. Pleading was also tied to greater psychological distress on the GHQ. Other researchers have also reported negative correlations between religious discontent, pleading, good deeds, and measures of adjustment among samples of college students dealing with the death of a friend (Park and Cohen 1993) and members of the military coping with HIV+ status (Jenkins 1992). Similarly, Zeidner and Hammer (1992) found that reports of increased involvement in religious activities were associated with greater anxiety and physical symptoms among Israelis during the missile attack of the Gulf War.

Perhaps the simplest explanation of these cross-sectional findings is that we have identified some particularly ineffective religious strategies for dealing with the stresses of the Gulf War; expressions of discontent, begging for an intercession from God, and efforts to lead a more faithful life could have been poor choices for coping with what was largely an uncontrollable situation.

There is, however, another possibility. Since both coping and distress were measured at the same point in time in the cross-sectional analyses, the seemingly dysfunctional forms of religious coping could have been the result of distress rather than the precipitant of it. In other words, greater turmoil could have served as a *religious coping mobilizer* (cf. Barrera

1986), leading students to voice religious discontent, plead for a miracle, and do good deeds. Unfortunately, the cross-sectional analyses limit our ability to sort out these different explanations.

The results of the longitudinal analyses provide a different perspective on the roles of religion in coping. While religious pleading was associated with greater negative affectivity and psychological distress at Time 1, it was tied to increases in positive affectivity from Time 1 to Time 2. While religious discontent and doing good deeds were related to greater distress at Time 1, they did not emerge as significant predictors of change in distress. And while religious avoidance was not associated with distress at Time 1, it was tied to increases in global distress.

It would appear that the coping methods associated concurrently with distress were different from the methods associated with changes in distress. One conclusion to be drawn from these findings might be that the factors leading to short-term adjustment may not necessarily be the same as those leading to long-term adjustment. Along these lines, some theorists have suggested that the coping strategies that provide immediate emotional relief and stability are different from those that contribute to a longer term resolution of the crisis (Folkman 1984; Roth and Cohen 1986). On the other hand, to the extent that the significant religious coping correlates of Time 1 outcomes are a result of, rather than a cause of, distress, we would need to amend the above conclusion to state that the types of religious coping elicited by stress are not necessarily the same as those most conducive to positive adjustment over time. The forms of religious coping mobilized by the situation may represent initial protective responses. Ultimately, however, the success of the coping process may rest on the individual's broader repertoire of coping activities. We might be able to clarify this issue by examining the relationship of religious coping to distress levels measured more frequently — before, during, and after a particular episode of coping with a significant stressor.

The specific longitudinal results deserve a bit more comment. The association of religious pleading with increases in positive affect over time may seem somewhat puzzling because begging God for a miracle seems to be a rather desperate, last-ditch resort in coping. And yet, in this situation, pleading had some positive implications. Perhaps in the process of pleading, the students achieved an emotional release. Or perhaps they experienced a sense of mastery and control, indirect as it may have been. The dramatic victory may have been of particular importance here. In a sense, the students' prayers were answered. Had the Gulf War been costlier to the allied forces or more drawn out, those who had pleaded for a miracle may have been more vulnerable to disappointment.

The negative implications of religious avoidance for changes in distress were more consistent with the theoretical literature. Religion has often been criticized for its tendency to avoid rather than confront painful realities (Ellis 1960; Freud 1949). Religious passivity in the face of the Gulf War did indeed have psychological costs for the individuals in this study. However, religious avoidance is only one form of coping, and important distinctions have been made between more passive and more active approaches to religious problem solving (Fromm 1960; Pargament et al. 1988; Pollner 1989).

The cross-sectional and longitudinal results were consistent with some studies that have used the religious coping scales (Jenkins 1992; Park and Cohen 1993), but not all. In contrast to this study, Pargament et al. (1990) found that spiritually-based coping activities and good deeds were the strongest predictors of outcomes among church members faced with a more diverse set of life crises. Furthermore, the relationship between religious pleading and outcomes in their group was relatively small. In this way, the findings from the religious coping literature seem to parallel those of the general coping literature (see Lazarus and Folkman 1984) where the value of particular coping activities appears to vary from group to group and situation to situation.

Religious vs. Nonreligious Coping

The relationship between religious coping and distress did not appear to be an artifact of the overlap between religious and nonreligious coping. Both forms of coping contributed unique variance to the prediction of distress. However, the two constructs were not completely independent of each other. Religious and nonreligious coping scales were modestly to moderately intercorrelated. Interestingly — and contrary to some who have viewed religion as an exclusively passive mechanism — the religious coping scales were more strongly tied to the active behavioral and cognitive coping measures than to the avoidance measure. The exception to this rule was the Religious Discontent scale; it related more strongly to nonreligious avoidance than to nonreligious active coping. These are not idiosyncratic findings. Other researchers have found various forms of religious coping to be more closely associated with active than passive nonreligious coping methods (Carver, Scheier, and Weintraub 1989; Gil, Abrams, Phillips, and Keefe 1989; Scheier, Weintraub, and Carver 1986). Overall, these findings replicate Pargament et al.'s (1990) study of church members in a broader, more religiously varied sample. They indicate that although religious and nonreligious coping methods are interrelated, the two are *not* functionally redundant.

CONCLUSIONS

Critical moments in living provide extraordinary opportunities to examine the workings of religion. Here we move from generalized religious abstractions, practices, and orientations to religion in concrete form. And evidence is accumulating that suggests these concrete embodiments of religiousness in coping have important immediate and longer-term implications for the resolutions of critical life events. But it is also becoming clearer that the role of religion in coping is complex. The forms of religious coping elicited by stressful events may not be the kinds of coping most helpful to people over the long term. What works well for some people in one situation may not work well for others faced with a different kind of problem. Our results suggest that we need to engage in a fine-grained analysis of religious coping in a variety of populations who are dealing with a wide range of problematic situations. Longitudinal analyses are particularly needed to clarify and distinguish religious coping mobilization effects from the short-term and long-term effects of religious coping on adjustment.

Theoretical frameworks of coping also suggest that we pay particular attention to the *functions* served by different religious coping mechanisms and their *fit* with the demands and challenges raised by particular life situations (Pargament 1990). For example, we might expect good deeds, religious confession, and forgiveness to be especially helpful in situations that elicit guilt. On the other hand, the belief that the individual will be punished by a vengeful God may be especially problematic in these situations. Spiritual support may be particularly valuable in situations that threaten or disrupt an individual's social support network, such as divorce, dislocation, or social catastrophe. Conversely, conflicts with clergy, congregation, or God during these times may be a source of particular bitterness. Pushed to the limit of one's personal powers by uncontrollable events such as disease, collaboration with God in problem solving may be a particularly helpful way to attain a sense of mastery and control. On the other hand, the sense that a distant God has left the individual essentially on his or her own in these times may be overwhelming. At their best, religious coping methods may be a unique source of solace, meaning, intimacy, and growth. And at their worst, religious coping methods may have a unique capacity to make bad matters worse.

REFERENCES

- Anson, O., S. Carmel, D. Y. Bonne, A. Levenson, and B. Maoz
1990 Recent life events, religiosity and health: An individual or collective effect. *Human Relations* 43: 1051-1066.
- Bahr, H. M. and C. D. Harvey
1979 Widowhood and perceptions of change in quality of life: Evidence from the sunshine mine widows. *Journal of Comparative Family Studies* 10: 411-428.
- Banks, M. H., C. W. Clegg, N. J. Jackson, E. M. Stafford, and T. D. Wall
1980 The use of the General Health Questionnaire as an indicator of mental health in occupational studies. *Journal of Occupational Psychology* 53: 187-194.
- Barrera, M., Jr.
1986 Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology* 14: 413-445.
- Beck, A. T., C. H. Ward, M. Mendelson, J. Mock, and J. Erbaugh
1961 An inventory for measuring depression. *Archives of General Psychiatry* 4: 561-571.
- Bohannon, J. R.
1991 Religiosity related to grief levels of bereaved mothers and fathers. *Omega* 23: 153-159.
- Carver, C. S., M. F. Scheier, and J. K. Weintraub
1989 Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology* 56: 267-283.
- Derogatis, L. R., R. S. Lipman, K. Rickels, E. H. Uhlenhuth, and L. Covi
1974 The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science* 19: 1-15.
- Ellis, A.
1960 There is no place for the concept of sin in psychotherapy. *Journal of Counseling Psychology* 7: 188-192.
- Feagin, J. R.
1964 Prejudice and religious types: A focused study of southern fundamentalists. *Journal for the Scientific Study of Religion* 4: 3-13.
- Fewell, R. R.
1986 Supports from religious organizations and personal beliefs. In *Families of handicapped children: Needs and supports across the life span*, edited by R. R. Fewell and P. F. Vadasy, 297-316. Austin: Pro-Ed.
- Folkman, S.
1984 Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology* 46: 839-852.
- Freud, S.
[1927] *The future of an illusion*. New York: Liveright.
1949
- Fromm, E.
1960 *Psychoanalysis and religion*. New York: Rinehart & Winston.
- Gibbs, H. W. and J. Achterberg-Lawlis
1978 Spiritual values and death anxiety: Implications for counseling with terminal cancer patients. *Journal of Counseling Psychology* 25: 563-569.
- Gil, K. M., M. R. Abrams, G. Phillips, and F. J. Keefe
1989 Sickle cell disease pain: Relation of coping strategies to adjustment. *Journal of Consulting and Clinical Psychology* 57: 725-731.
- Glyshaw, K., L. H. Cohen, and L. C. Towbes
1989 Coping strategies and psychological distress: Prospective analyses of early and middle adolescents. *American Journal of Community Psychology* 17: 607-624.
- Goldberg, D.
1978 *Manual of the General Health Questionnaire*. Windsor: National Foundation for Educational Research.
- Hathaway, W. and K. Pargament
1990 Intrinsic religiousness, religious coping, and psychosocial competence: A covariance structure analysis. *Journal for the Scientific Study of Religion* 29: 423-441.
- Jenkins, R.
1992 Religious coping among HIV+ members of the military. Unpublished manuscript.
- Koenig, H. G., L. K. George, L. K., and I. C. Siegler
1988 The use of religion and other emotion-regulation coping strategies among older adults. *Gerontologist* 28: 202-310.
- Lazarus, R. and S. Folkman
1984 *Stress, appraisal, and coping*. New York: Springer.
- Lindenthal, J. J., J. K. Myers, M. P. Pepper, and M. S. Stein
1970 Mental status and religious behavior. *Journal for the Scientific Study of Religion* 9: 143-149.
- McIntosh, D. N., R. C. Silver, and C. B. Wortman
1993 Religion's role in adjustment to a negative life event: Coping with the loss of a child. *Journal of Personality and Social Psychology* 65: 812-821.
- McIntosh, D. N. and B. Spilka
1990 Religion and physical health: The role of personal faith and control. In *Research in the social scientific study of religion. Vol. 2*, edited by M. L. Lynn and D. O. Moberg, 167-194. Greenwich, CT: JAI Press.
- McRae, R. R.
1984 Situational determinants of coping response: Loss threat, and challenge. *Journal of Personality and Social Psychology* 46: 919-928.
- Menaghan, E. G.
1983 Individual coping efforts and family studies: Conceptual and methodological issues. In *Social stress and the family*, edited by H. I. McCubbin, 113-135. New York: Haworth Press.
- Moos, R. H., R. C. Cronkite, A. G. Billings, and J. W. Finney
1986 *Health and daily living form manual — revised version*. Palo Alto, CA: Veterans Administration and Stanford University Medical Centers.
- Pargament, K. I.
1990 God help me: Toward a theoretical framework of coping for the psychology of religion.

- Research in the Social Scientific Study of Religion* 2: 195-224.
- Pargament, K. I., D. S. Ensing, K. Falgout, H. Olsen, B. Reilly, K. Van Haitsma, and R. Warren
1990 God help me (I): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology* 18: 793-824.
- Pargament, K. I., J. Kennell, W. Hathaway, N. Grevengoed, J. Newman, and W. Jones
1988 Religion and the problem solving process: Three styles of coping. *Journal for the Scientific Study of Religion* 27: 90-104.
- Pargament, K. I., H. Olsen, B. Reilly, K. Falgout, D. S. Ensing, and K. Van Haitsma
1992 God help me (II): The relationship of religious orientations to religious coping with negative life events. *Journal for the Scientific Study of Religion* 31: 504-513.
- Park, C., L. H. Cohen, and L. Herb
1990 Intrinsic religiousness and religious coping as life stress moderators for Catholics versus Protestants. *Journal of Personality and Social Psychology* 54: 562-574.
- Park, C. and L. H. Cohen,
1993 Religious and nonreligious coping with the death of a friend. *Cognitive Therapy and Research* 17: 561-577.
- Plante, T. G. and G. M. Manuel
1992 The Persian Gulf War: Civilian-related war-related stress and the influence of age, religious faith, and war attitudes. *Journal of Clinical Psychology* 48: 178-182.
- Pollner, M.
1989 Divine relations, social relations, and well-being. *Journal of Health and Social Behavior* 30: 92-104.
- Pressman, P., J. S. Lyons, D. B. Larson, and J. J. Strain
1990 Religious belief, depression, and ambulatory status in elderly women with broken hips. *American Journal of Psychiatry* 147: 758-760.
- Rosenstiel, A. K. and F. J. Keefe
1983 The use of coping strategies in chronic low back pain patients: Relationship to patient characteristics and current adjustment. *Pain* 17: 33-44.
- Roth, S. and L. J. Cohen
1986 Approach, avoidance, and coping with stress. *American Psychologist* 41: 813-819.
- Scheier, M. F., J. K. Weintraub, and C. S. Carver
1986 Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology* 51: 1257-1264.
- Sered, S. S.
1989 The religion of relating: Kinship and spirituality among middle eastern Jewish women in Jerusalem. *Journal of Social and Personal Relationships* 6: 309-325.
- Spielberger, C. D., R. L. Gorsuch, and R. E. Lushene
1970 *Manual for the state-trait anxiety inventory*. Palo Alto, CA: Consulting Psychologist Press.
- Stouffer, S. A., A. A. Comsdaine, M. H. Comsdaine, R. W. Williams, Jr., M. B. Smith, J. L. Janis, S. A. Star, and L. S. Cottrell, Jr.
1965 *The American soldier: Combat and its aftermath, Vol. 2*. New York: John Wiley.
- Watson, D., A. L. Clark, and A. Tellegen
1988 Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology* 54, 1063-1070.
- Williams, D. R., D. B. Larson, R. E. Buckler, R. C. Heckman, and C. M. Pyle
1989 Religion and psychological distress in a community sample. Paper presented to the American Psychological Association, New Orleans (August).
- Zeidner, M. and A. L. Hammer
1992 Coping with missile attack: Resources, strategies and outcomes. *Journal of Personality* 60: 709-746.