The Dedication to the Sacred (DS) Scale: Adapting a Marriage Measure to Study Relational Spirituality

Don E. Davis, Everett L. Worthington, Jr.,
Joshua N. Hook, and Daryl R. Van Tongeren
Virginia Commonwealth University

We describe the development of the Dedication to the Sacred Scale (DS). The measure was created to test a model of relational spirituality and forgiveness. Items from a measure of commitment in couples (Stanley & Markman, 1992) were adapted to assess a victim's dedication to a relationship with the Sacred. In Study 1 (*N* = 171), confirmatory factor analysis revealed good fit to a single-factor model. We removed poor items and replicated the factor structure on an independent sample in Study 2 (*N* = 201). In Study 3 (*N* = 134), the five-item DS showed evidence of construct validity. It was positively related to religious commitment and uncorrelated with social desirability. The DS predicted forgiveness after the variance from religious commitment, desecration, and offender's spiritual and human similarity were removed. Those who viewed the Sacred as a personal being had higher scores than those who viewed the Sacred as impersonal.

The current article is based on a new strategy of exploring the relationship between spirituality and forgiveness. Previous research has focused on the question, are people who are more religious more forgiving than people who are less religious (McCullough & Worthington, 1999). Instead, we ask the question, what ways of relating to the Sacred promote or inhibit forgiveness? To help answer this question, we use a model of relational spirituality and for-

giveness that describes several ways a victim may perceive that a transgression has spiritual significance (Davis, Hook, & Worthington, 2008; Worthington, 2009). For one of the constructs in our model, we do not have a good measure. Thus, the current article reports on the development of the Dedication Sacred Scale (DS). For both psychological and theological reasons, we adapted a measure of marriage commitment to assess someone's relationship with the Sacred.

A New Strategy to Study Spirituality and Forgiveness

Most research on spirituality and forgiveness has focused on whether people who are more religious are more forgiving than people who are less religious (Worthington, in press). That is, most studies have treated spirituality as a personality-like trait that is relatively stable across situations and relationships. Such an approach has several drawbacks. First, by treating religiosity as a personality-like trait, researchers are not able to use causal designs. They cannot use experimental or longitudinal designs that investigate changes in spirituality if constructs are not expected to change much. Although religious beliefs, values, and practices are relatively stable, spiritual experiences fluctuate over time. Feelings of closeness, connection, intimacy, and dedication toward the Sacred (i.e., God in our context, though people may sacralize other objects; Pargament & Mahoney, 2005) may vary.

Second, if researchers want to study actual offenses, using a trait-like measure of spirituality strains a measurement principle. Measures tend to correlate most strongly when they are measured at
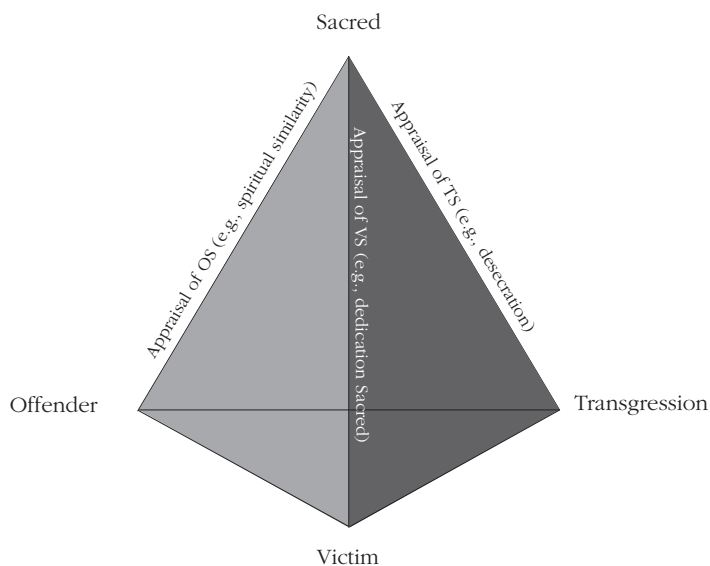
Figure 1. Spiritual Appraisals of Relationship in Model of Relational Spirituality and Forgiveness (Adapted from Davis, Hook, & Worthington, 2008).

Note. OS = victim's appraisal of the relationship between the offender and the Sacred; VS = victim's appraisal of his or her own relationship with the Sacred; TS = victim's appraisal of the relationship between the transgression and the Sacred.

the same level-of-specificity (Tsang, McCullough, & Hoyt, 2005). Measuring trait religiosity or trait spirituality to predict forgiveness of specific offenses measures the two constructs at different levels-of-specificity. For this reason alone, one may not find a relationship between religiosity (or trait spirituality) and forgiveness.

Third, after over 15 years of using the strategy, research has not authoritatively informed how clinicians help religious clients forgive. Researchers know that religion tends to promote forgiveness; however, little is known about when and why it promotes forgiveness, how people draw on religion to forgive, or how therapists can focus clients' attention to aspects of their religion or spiritual life that will help them achieve forgiveness when they want to forgive someone. For example, are those who are able to remain involved with the same church able to forgive better than those who change churches regularly? To help spiritual clients forgive, therapists need to know what experiences tend to promote or inhibit forgiveness. Our model of relational spirituality and forgiveness has the potential to address these limitations in the extant literature.

The Relational Spirituality Model

Sanctification is a process by which any event or relationship can be imbued with sacred meaning or significance (Pargament & Mahoney, 2005). A victim may sanctify aspects of a transgression event. For example, some victims may treat forgiveness as a sacred, God ordained act. In our model, victims might relate the Sacred to the transgression, themselves, or the offender (see Figure 1; Davis et al., 2008, p. 294). We call these appraisals of relational spirituality. These appraisals evoke emotions that may promote or inhibit forgiveness. Following Worthington (2006), emotional forgiveness occurs when a victim replaces negative emotions with positive other-oriented emotions such as empathy, sympathy, compassion, or love. Thus, if appraisals of one's own relationship to the Sacred, the offender's relationship to the Sacred, or the transgression's relationship to the Sacred evoke positive, other-oriented emotions (such as thinking of the offender as a person in Christ who needs mercy just as the victim him or herself does), then some degree of emotional forgiveness will occur. On the other hand, if appraisals evoke disgust, bitterness, or righteous anger (such as seeing the offense as a desecration of the sacred marriage vow),

then emotional forgiveness may not occur. Emotions such as guilt or shame may have complex effects on the forgiveness process.

The following example illustrates the model. Josiah and Melanie are both committed Christians. After being married for five years, Melanie then has an affair. Later, she confesses the infidelity and seeks to restore the relationship. How will Josiah's relationship with God affect whether he will forgive Melanie? Previous research might suggest that, because Josiah is a Christian, he will likely *ipso facto* forgive Melanie, who also is a Christian (Davis et al., 2009). Experience teaches that this is not always the case. Our model seeks to improve that prediction by considering Josiah's appraisals of relational spirituality. First, Josiah appraises the relationship between the transgression and the Sacred (see TS in Figure 1). He views marital infidelity as an "abomination against God" and feels that the offense was a desecration. Transgressions that are seen as desecrations are particularly difficult to forgive (Davis et al., 2008). Second, Josiah considers Melanie's relationship with God (see OS, offender-Sacred relationship, in Figure 1). Her betrayal may cause him to question her religious commitment. Furthermore, the "depravity" of her act may make Josiah feel less connected to her as a fellow human. Seeing an offender as humanly or spiritually similar is related to greater forgiveness (Davis et al., 2009). Third, Josiah appraises his own relationship to the Sacred (see VS, victim-Sacred relationship, in Figure 1) in response to the transgression. He might feel closer to or further from the Sacred after the transgression. He might feel angry at God and afraid he has displeased God. He might feel like God should have prevented the affair, and thus his spiritual closeness to God wanes; in which case, Josiah might feel less inclined to forgive Melanie. These appraisals of relational spirituality are treated as modifiable measures of spirituality rather than relatively static constructs like religious commitment, theological beliefs, or religious practices, like church attendance. The model implies that the nature of these spiritual appraisals will affect the hurtfulness of the offense and the difficulty and likelihood of forgiveness.

Measuring Relational Spirituality and Forgiveness

To test the model, reliable and valid measures are needed for each of these three spiritual appraisals.

Measures exist for both the OS (i.e., Spiritual View of the Offender Scale, Davis et al., 2009) and the TS relationships (Sacred Loss and Desecration Scale; Pargament et al., 2005). Likewise, researchers have successfully created several measures of relational spirituality by adapting measures of interpersonal relationships to assess one's relationship with the Sacred (e.g., Beck, 2006; Rowatt & Kirkpatrick, 2002; Hall & Edwards, 2002). One weakness with these measures is that each assesses trait-like constructs (e.g., attachment to God; Rowatt & Kirkpatrick, 2002) that are considered to be relatively stable over time. Our model requires constructs that assess the victim's response to a transgression over a brief period of time—not moment-by-moment but perhaps fluctuating over days or weeks. In order to test our model, a new measure is needed that is responsive to spiritually significant events. Instead of adapting measures of relational traits, we examined measures that assess more flexible relational constructs within an intimate relationship.

Marriage as a Metaphor of Relationship with the Sacred

For both theological and psychological reasons, we honed in on the marriage relationship as a metaphor for ways people can relate to the Sacred. Throughout its history, Christianity has used the metaphor of marriage to describe the relationship between God and humans. Jesus uses the language of sexual intimacy (i.e., "union") to describe the unity of the relationship between the Father, the Son, and Holy Spirit (Jn 17). The passage in John 17 suggests that sexuality is but a shadow of the fullness of joy that is experienced by the Trinity, and Christians are called to move towards that kind of relationship (also see Song of Songs). Paul explicitly refers to Christ's relationship to the church as one between a bridegroom and a bride (see Eph 5: 21-33, for an example in Paul's writings). Christians learn that they are the betrothed of God. Early church theologians picked up on the highly relational themes (see Augustine many writings; Chadwick, 1986). Salvation was not seen as a transaction. It was seen as a relationship progressing into deeper levels of intimacy, culminating in union with God (the same image in John).

Likewise, psychologists use relational theories to describe spirituality. For example, Kirkpatrick uses attachment theory to describe how people experience an emotional bond with the Sacred (Kirkpatrick,

2005). Kirkpatrick argues that the psychological systems that help people to bond with people throughout life also allow people to bond with the Sacred. Likewise, integrationists have adapted psychological theories of human relationship to understand spirituality. For example, Shults and Sandage (2006) adapted a theory of sexual intimacy in marriage (Schnarch, 1991) to describe how people undergo spiritual transformation.

The purposes of the present research were to develop the Dedication to the Sacred (DS) Scale and to provide evidence that supports it psychometrically. Items for the scale were created by adapting the items of the Dedication subscale of the Commitment Inventory (Stanley & Markman, 1992). In Study 1, we examined the factor structure of the 14-item Dedication to the Sacred Scale (DS-14) using confirmatory factor analysis. Poor items were dropped, and the final version of the scale (DS-5), consisting of 5 items, was retained. In Study 2, we replicated the factor structure of the DS-5 on an independent sample, calling it the DS thereafter. In Study 3, we adduced evidence supporting the construct and criterion-related validity of the DS.

STUDY 1

The purpose of Study 1 was to create the DS-14 by adapting items for the Dedication subscale of the Commitment Inventory (Stanley & Markman, 1992) to assess one's relationship with the Sacred. Adapting the DS-14 from a psychometrically sound scale, we hypothesized that the DS-14 would show a one-factor structure.

METHOD

Participants and Procedure

Participants were undergraduate students ($N =$ 171) from a large Mid-Atlantic urban university. Participants were recruited from undergraduate classes and completed a brief survey online in exchange for a small amount of course credit. Participants were 59.0% female with a mean age of 19.3 ($SD =$ 3.3). Participants were 56.6% Caucasian, 17.0% Black or African-American, 14.3% Asian, and 2.2% Latino or Hispanic. Participants were 60% Christian, 15% atheist or not religious, 3.5% Muslim, 13.5% reported another religion, and 8% did not report a religious affiliation. Participants considered the scale in light of a transgression perpetrated against them.

Measures

Dedication to the Sacred. Dedication to the Sacred was measured with 14 items that were adapted from the Dedication subscale of the Commitment Inventory (Stanley et al., 1992). Instead of measuring the participants' dedication to a partner, however, items of the DS-14 (see Appendix for the DS-5) were adapted to measure a victim's dedication to the Sacred after a transgression. Participants rated their agreement with each item (e.g., "My relationship with the Sacred is more important to me than almost anything else in my life") on a 7-point scale from 1 = *Strongly Disagree* to 7 = *Strongly Agree*.

Results and Discussion

Scores on all 14 DS-14 items were assessed for missing data, the presence of outliers, and normality. There was a small amount of missing data that was handled with pairwise deletion. Items had a small number of outliers that fell within the range of expected values (i.e., 1 through 5) and were thus retained in the analysis. Items met normality assumptions, with skewness values less than one and kurtosis values less than two.

The DS-14 was adapted from a previously established latent construct that has been used for research on couples, so we used confirmatory factor analysis (CFA) to determine whether this model would also extend to one's relationship with the Sacred (see Noar, 2003). MPLUS Version 5.2 was used to conduct a CFA on the covariance matrix of the 14 items of the DS-14 using maximum-likelihood (ML) estimation. For each model, several fit indices were examined to evaluate the overall fit of the model—namely, the Chi-square value, the comparative fit index (CFI), and the root-mean-square-error-approximation (RMSEA). The χ^2 should ideally be not significant; however, because the Chi-square statistic is sensitive to sample size, a χ^2/df ratio of less than five generally is considered acceptable. In addition, a CFI above .90, and an RMSEA less than .08 suggest acceptable fit. The Chi-square difference test was used to compare nested models.

Initially, the overall fit of this model was poor, χ^2 (77) = 661.84, $p < .01$, *RMSEA* = .21, *CFI* = .63. We desired a strong yet brief scale and thus adopted a rigorous loading criterion. Items ($n = 9$) that did not load at least .60 on the single factor were dropped from the scale. After these items were dropped, a second CFA was conducted on the remaining 5-items

Items Factor Loadings for the Dedication to the Sacred Scale (DS; Study 1and Study 2)

Item	Study 1	Study 2
My relationship with the Sacred is more important to me than almost anything else in my life.	.91	.88
I want my relationship with the Sacred to stay strong no matter what rough times I may encounter.	.94	.91
I like to think of the Sacred and me more in terms of "us" and "we" than "me" and "him/ her/ it."	.72	.70
My relationship with the Sacred is clearly part of my future life plans.	.95	.93
It makes me feel good to sacrifice for the Sacred.	.74	.84

(DS-5; henceforth called the DS). The overall fit of the one-factor model was good, χ^2 (5) = 20.04, $p <$ .01, *RMSEA* = .13, *CFI* = .98, χ^2/df = 4.01. Factor loadings of items ranged from .72 - .95 (see Table 1). The Cronbach's alpha for the DS Scale was .93.

In summary, Study 1 involved the creation and refinement of the DS-14. Based on results from confirmatory factor analysis, poor items were dropped. The final version of the DS showed good fit of the hypothesized single-factor model (although the RMSEA was higher than desirable), and the Cronbach's alpha suggested evidence supporting good estimated internal consistency.

S<small>TUDY</small> 2

In Study 1, items were winnowed based on results from a CFA. The results of Study 1 may have been due to the characteristics of that sample. Thus, the aim of Study 2 was to replicate the single-factor structure of the DS on a separate sample, providing evidence that the factor structure is consistent in other samples.

M<small>ETHOD</small>

Participants and Procedure

Participants were undergraduate students (*N* = 201) from a large Mid-Atlantic urban university. Participants were recruited from undergraduate classes and completed brief online surveys regarding a transgression. The surveys included the DS. Students received a small amount of course credit. Participants were 51.2% female with a mean age of 19.6 (*SD* = 2.0). Participants were 52.7% Caucasian, 22.4% Black or African-American, 8.0% Asian, and 3.0% Latino or Hispanic, 7.5% reported another ethnicity, and 6.5% did not report ethnicity. Participants were 59.2% Christian, 22.4% atheist or not religious, 4.0%

Hindu, 3.0% Muslim, 3.0% reported another religion, and 8.5% did not report a religious affiliation.

Results and Discussion

Scores on all DS items were assessed for missing data, the presence of outliers, and normality. There was a small amount of missing data that was handled with pairwise deletion. Items had a small number of outliers that fell within the range of expected values (i.e., 1 through 5) and were thus retained in the analysis. Items met normality assumptions, with skewness values less than one and kurtosis values less than two.

To test the fit of the hypothesized single-factor model of the DS, we used MPLUS Version 5.2 to conduct a CFA on the covariance matrix of the DS using maximum-likelihood (ML) estimation. The overall fit of the three-factor model was adequate, χ^2 (5) = 4.52, $p <$ .01, *RMSEA* =.01; *CFI* = .99; χ^2/df = .90. Factor loadings of items ranged from .70 - .93 (Table 1). The Cronbach's alpha for the DS was .88. Thus, Study 2 provided evidence that the single-factor structure of the DS replicated on a separate sample. Once again, the Cronbach's alpha suggested evidence of good estimated internal consistency.

S<small>TUDY</small> 3

In Studies 1 and 2, we created and refined the DS. We also presented initial evidence for its single-factor structure and estimated internal consistency. The purpose of Study 3 was to provide initial evidence for the validity of the DS. To provide evidence of construct validity, we tested four hypotheses. First, we hypothesized that the DS would be positively correlated with religious commitment. The DS measures a victim's dedication to the Sacred after a transgression, not just his or her general commitment to a religion. The two constructs should be

TABLE 2
Means, SD, and Intercorrelations of Relational Spirituality with Other Constructs (Study 3)

Scale	α	M	SD	DS	RCI	DES	SS	HS	SD
DS	.94	23.13	9.16						
Religious commitment(RCI)	.95	26.22	11.22	.59**					
Desecration	.93	15.44	11.44	.15	.06				
Spiritual similarity	.91	14.10	8.28	.04	.19*	.10			
Human similarity	.90	11.38	6.24	.18	.35**	.04	.57**		
Social Desirability	.66	20.80	4.42	-.11	-.02	-.04	0.14	.19*	
Unforgiving motivations	.94	43.05	15.20	-.21*	-.08	.41**	-0.06	-.23*	-0.02

* = p < .05; ** = p < .01
Note. RCI-10 = Religious commitment; DES = Desecration; SS = Spiritual similarity; HS = Human similarity; SD = Social desirability

related, but they are measured at different levels-of-specificity and they refer to a slightly different target (i.e., commitment to a relationship with the Sacred versus commitment to a religion).

Second, we also predicted that the DS would be modestly (or perhaps uncorrelated) with social desirability. Typically, the relationship of religious and spiritual measures to social desirability is small but positive–though some have argued that this small positive relationship does not damage construct validity, but is to be expected given the prosocial nature of much of religion (Leak & Fish, 1989; Saroglou, Pichon, Trompette, Verschueren, & Dernelle, 2005).

Third, in a stringent test of incremental predictive validity, we hypothesized that the DS would predict forgiveness, even after variance from religious commitment and two other spiritual appraisals of relational spirituality (i.e., measures of the OS and TS relationships) had been removed.

Fourth, to provide evidence of criterion-related validity, we hypothesized that participants who considered the Sacred to be a personal being (as opposed to primarily nature, humanity, or the cosmos) would receive higher scores on the DS. That is, people who considered the Sacred to have personal characteristics would show higher scores on an adapted measure of interpersonal relationship than people who considered the Sacred to be an impersonal being.

METHOD

Participants and Procedure

Participants were undergraduate students (*N* = 134) from a large Mid-Atlantic urban university.

Participants were recruited from undergraduate classes and participated in exchange for a small amount of course credit. Participants were 70.1% female with a mean age of 18.1 (*SD* = 2.1). Participants were 50.7% Caucasian, 18.7% Black or African-American, 15.7% Asian, 1.4% Latino or Hispanic, and 14.9% reported another ethnicity. Participants were 66.4% Christian, 26.1% none or atheist, 1.0% Muslim, 1.0 Hindu, and 6.0% other.

Participants completed the survey online. After completing demographic and dispositional measures, participants recalled a hurt or offense that had occurred within the last month. They indicated the hurtfulness of the offense, how long ago the offense occurred, and the initial closeness of their relationship to the offender. Participants then completed measures of their response to the transgression (i.e., unforgiveness, empathy, sacred loss and desecration, etc.).

Measures

Demographic Questionnaire. Participants reported gender, ethnicity, and age.

Dedication to the Sacred. The VS relationship (see Figure 1) was measured with the DS. Reliability estimates (i.e., Cronbach's alphas) for all scales in Study 3 are listed in Table 2.

View of God as Personal or Impersonal. A single item was used to assess whether the participants viewed the Sacred as a personal being (such as God, as many religions do) or an impersonal being, either nature, the cosmos, or global humanity.

Religious commitment. The 10-item Religious Commitment Inventory-10 (RCI-10; Worthington et al.,

2003) was used to assess one's commitment to a religion. Participants rated their agreement with each item (e.g. "My religious beliefs lie behind my whole approach to life") on a 5-point Likert scale from 1 = *Not at all true of me* to 5 = *Totally true of me*. In a variety of samples, Worthington et al. (2003) found Cronbach's alpha coefficients ranging from .88 to .98. Estimates of temporal stability (3 week and 5 month) were .84 to .87, respectively. The RCI-10 also showed evidence of construct validity. Participants who endorsed salvation as one of the top five values on Rokeach's Value Survey scored significantly higher on the RCI-10 than participants who did not endorse salvation as one of the top five values (Worthington et al., 2003). The RCI-10 was significantly and positively correlated with a single-item measure of religiosity, the frequency of attendance of religious activities, and self-rated spiritual intensity. Furthermore, when comparing Buddhists, Christians, Hindus, Muslims, and nonreligious participants on the RCI-10, the nonreligious group scored significantly lower on the RCI-10 than did all religious groups (Worthington et al., 2003).

Social Desirability. The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) consists of 33 items that measure the need for social approval. Participants read statements concerning personal attributes and traits, and indicated whether each statement is true or false for them personally. The MCSDS had a Kuder-Richardson coefficient estimate of .88 (Crowne & Marlowe, 1960). Estimated one-month temporal stability was .89. The scale also shows evidence of construct validity, and was positively related to another scale measuring social desirability (Crowne & Marlowe, 1960).

Transgression-Sacred (TS) relationship. The TS relationship was assessed with the 10-item Sacred Desecration Scale (SDS; Pargament et al., 2005), which measures the extent to which participants see the target offense as a loss of something sacred or the desecration of something sacred. Participants responded to items (e.g., "This event involved losing a gift from God") on a 5-point scale ranging from 1 = *Not at all* to 5 = *Very much*. Pargament et al. (2005) reported that the Cronbach's alpha for Sacred Desecration was .92.

Offender-Sacred (OS) relationship. The OS relationship was assessed with Spiritual View of the Offender Scale (SVOS; Davis et al., 2009), which measures the extent to which participants view an offender as spiritually similar to themselves. Participants responded to (how many) items (e.g., "I

thought about how similar my basic religious beliefs were to his/hers"; spiritual similarity; or "I thought to myself that this person was a brother/sister human"; human spirituality) on a 7-point scale ranging from 0 = *Completely disagree* to 6 = *Completely agree*. Cronbach's alphas ranged from .87-.93 for Spiritual Similarity and from .79-.86 for Human Similarity. The SVOS showed evidence of construct validity, being correlated with religious commitment and other measures of religiosity. In addition, it showed evidence of criterion validity, being correlated with empathy and forgiveness.

Unforgiveness. The Avoidance and Revenge subscales of the Transgression-Related Interpersonal Motivations Inventory (TRIM; McCullough et al., 1998) were used to measure unforgiving motivations towards a specific offender (i.e., the subscale scores were added together). Participants rated each item (e.g., "I'll make him or her pay") on a 5-point scale from 1 = *Strongly disagree* to 5 = *Strongly agree*. The TRIM had Cronbach's alphas ranging from .84 to .93 for the avoidance and revenge subscales. Estimated three-week temporal stability in a sample of people who had difficulty forgiving ranged from .79-.86 for the avoidance and revenge subscales. Estimated eight-week temporal stability in a sample of recent victims ranged from .44-.53 for the avoidance and revenge subscales. The scale shows evidence of construct validity, and was found to be positively correlated with other measures of forgiveness, relationship satisfaction, and commitment.

Results and Discussion

Scores on scales were assessed for missing data, the presence of outliers, and normality. There was a small amount of missing data that was handled with pairwise deletion. Items had a small number of outliers that fell within the range of expected values (i.e., 1 through 5) and were thus retained in the analysis. Items met normality assumptions, with skewness values less than one and kurtosis values less than two.

Means, SD, alphas, and intercorrelations for all scales hypothesized to correlate with the DS are summarized in Table 2. Consistent with our hypotheses, the DS was positively and strongly associated with religious commitment and was unrelated to social desirability. The DS was also positively correlated with measures of forgiveness.

To show evidence of incremental predictive validity, we conducted a hierarchical linear regression

TABLE 3
Test of Incremental Predictive Validity of the DS (Study 3)

	B	SE	β	p
Step 1				
(Constant)	32.25	3.32		.00
Religious commitment	-.09	.12	-.08	.43
Step 2				
(Constant)	28.19	3.61		.00
Religious commitment	-.02	.11	-.02	.85
Desecration	.50	.10	.41**	.00
Spiritual similarity	.10	.17	.06	.57
Human similarity	-.61	.24	-.28**	.01
Step 3				
(Constant)	33.44	3.76		.00
Religious commitment	.24	.13	.19	.07
Desecration	.55	.10	.46**	.00
Spiritual similarity	.04	.17	.03	.81
Human similarity	-.60	.23	-.27**	.01
DS	-.53	.15	-.35**	.00

Note. R^2 for Step 1 = .01, p = .43; $R^2\triangle$ for step 2 = .22, p < .001; $R^2\triangle$ for step 3 = .08, p = .001;

with unforgiveness for a specific transgression as the criterion variable. Religious commitment (RCI-10) was entered in Step 1. Desecration, spiritual similarity to the offender, and human similarity to the offender (i.e., the TS and OS relationships) were entered in Step 2. Then we entered the DS in Step 3 to see whether it could account for additional variance in unforgiveness. Results of the regression are described in Table 3. In short, religious commitment did not predict forgiveness in Step 1. Other spiritual appraisals (i.e., using the relational spirituality model at the level of a specific transgression) accounted for 22% additional variance. Even with this stringent test of incremental predictive validity, the DS still accounted for 8% additional variance in unforgiveness.

To show evidence of criterion-related validity, we conducted an analysis of variance to compare scores on the DS between participants who understood the Sacred as a personal being and those who understood the Sacred as impersonal (i.e., nature, cosmos, or humanity). As predicted, those who viewed the Sacred as a Personal Being reported significantly greater (M = 26.04, SD = 7.73) commitment to the Sacred than those who viewed the Sacred as an impersonal being (M = 18.48, SD = 9.29, $t(116)$ = 4.81, p < .001).

The results of Study 3 provided initial evidence for the construct validity of the DS. The DS was strongly related to religious commitment and unrelated to social desirability. The DS predicted unforgiving motivations, even after removing variance accounted for by religious commitment and other appraisals of relational spirituality (i.e., desecration and spiritual and human similarity). Finally, DS scores were higher for participants who viewed the Sacred as a personal rather than impersonal being.

We provided some initial normative data by collapsing the three samples of college students (total N = 506; see Appendix B). In particular, we identified college students who identified themselves as Christians (n = 310) and compared their score on the DS with college students identifying as atheists or no religion (n = 101) and other religions (n = 57). A one-way ANOVA revealed that DS scores were different, F (2, 465) = 77.30, p < .001. Tukey's post hoc tests revealed that Christians scored higher, M = 24.76, SD = 7.25, than atheist/nonreligious, M = 14.11, SD = 8.48, and other religions, M = 20.36, SD = 7.34 (ps < .01). DS scores did not differ by gender, F (2, 16.73) = .23, p = .79. Likewise, scores did not differ by ethnicity, F (5, 9.28) = 1.10, p = .42.

General Discussion

In the present series of three studies, we advanced the measurement of the role of religion in forgiving a specific transgression. We developed the Dedication to the Sacred Scale and provided initial evidence for its psychometric adequacy. Therefore, measures exist for all three appraisals of relational spirituality within our model.

Our model employs a different strategy from most previous research on spirituality and forgiveness. Previous research has measured spirituality with personality-like constructs of spirituality such as religiosity. That line of research has yielded little practical knowledge about when and why one's spirituality can help or hinder forgiveness. To address some of these limitations, we examined ways that a victim can perceive that a transgression has spiritual significance. Namely, victims relate the Sacred to themselves, the transgression, and the offender.

The third study of this article provided a test of the full model of relational spirituality and forgiveness. Previous tests of the model lacked measures for at least one of appraisals of relational spirituality (Davis et al., 2008, 2009). We found that appraisals of relational spirituality were stronger predictors of forgiveness of an actual offense than trait-like measures of spirituality. In fact, religious commitment was unrelated to forgiveness in Study 3. In contrast, appraisals of relational spirituality accounted for 31% of the variance in unforgiveness scores. In previous research, trait-like measures of spirituality have typically predicted about 5% of the variance in forgiveness scores (e.g., Tsang et al., 2005). A strength of our model is that it includes not only constructs that may help someone forgive, but constructs that likely make forgives more difficult.

Unlike Davis et al. (2009), we did not find a relationship between spiritual similarity and forgiveness in Study 3. Understanding the discrepancy may require using longitudinal designs. Davis et al. (2009) found that spiritual similarity was also associated with more hurtful offenses. We hypothesize that offenses by spiritually similar offenders will tend to be initially more hurtful (Davis et al., 2009). Offenses by ingroup members may be seen as betrayals, which are more difficult to forgive. On the other hand, victims may have greater motivation to forgive spiritually similar offenders. They may have more commitment to the relationship. In addition, they may have greater support (or group pressure) to forgive from the spiritual community. Thus, over time, we hypothesize that victims will be more forgiving of spiritually similar offenders.

Limitations

The current studies had several limitations. First, all three samples were college students. The samples were predominately Christian and were from the same Mid-Atlantic University. To provide evidence that the model applies to an array of spiritual and religious groups, research is needed that strategically targets specific religious and spiritual groups from various community samples and more geographically diverse universities and colleges.

Second, our test of the model does not allow causal inferences to be made because we used a cross-sectional, correlational design. Forgiveness implies a change in the victim's emotions and motivations towards an offender, which would be best studied with longitudinal data (McCullough, Fincham, & Tsang, 2003). Such designs may reveal complex relationships between spirituality and forgiveness that must be interpreted carefully. For example, Krumrei, Pargament, and Mahoney (2008) examined how leaning on God for support affected divorced individuals' relationships with their ex-partners. They found that leaning on God was assisted with greater hurt at Time 1. Those who increased in how much the leaned on God over a year showed declines in their relationship with their ex-partner. With a longitudinal design, the research can explore such complex relationships by controlling for initial differences in hurtfulness and then examining how changes in relational spirituality might affect the time course of forgiveness.

Directions for Future Research

There are additional studies needed to supply more evidence for the psychometric adequacy of the DS. (Only so much can be done in the present initial article.) For example, we have claimed that the DS is particularly useful when events might affect one's relationship with the Sacred. A manipulated experiment would be useful. Participants could complete the DS and then be randomly assigned to either (a) ruminate about a particularly hurtful offense or (b) read inspirational or devotional writings, or (c) pray and worship silently while listening to praise music or hymns. On a retest, the DS scores should be expected to move in different directions. As another

example of needed future research, one might be tested in reference to an active grudge. People might participate in a Christian-tailored psychoeducational group to promote forgiveness, such as Worthington's (2003) five steps to REACH forgiveness, which has been shown to be effective with college students (Lampton et al., 2006; Stratton et al., 2008). Then the participants could be retested at the end of the group and after a follow-up. Both forgiveness and DS should be expected to change (a) over time and (b) in comparison with a control condition.

The next step is to use the model to test theories of how interpersonal relationships and spirituality affect each other, such as Sandage and Shults's (2007) provocative theory of spiritual transformation. They propose that spiritual transformation often occurs in the crucible of relationships. A crucible is a chamber that is used to contain reactions that occur when substances are mixed together. If the crucible can withstand the intensification of heat, the substances are transformed into something new. Originally, Schnarch (1991) used the metaphor of a crucible to describe how sexual intimacy grows in marriage. Shults and Sandage extended the theory to describe spiritual transformation. Using our model, we could put the theory to the test. What helps some people learn to repair their relationships and remain close? Why do others disengage? We believe that spiritual experiences, such as viewing one's partner as spiritually similar or praying for the offender (McMinn et al., 2008), can promote spiritual commitment and intimacy that helps couples 'stand the heat.' However, other spiritual experiences, such as seeing one's partner as a spiritual outsider or viewing offenses as desecrations, may create 'cracks in the crucible.'

After over 15 years of little progress, research on spirituality and forgiveness is ripe for a new strategy. Relational spirituality provides exciting new directions for the future of forgiveness research. Importantly, as researchers discover how relational spirituality and forgiveness affect each other, the findings will yield new insight into how to promote forgiveness among spiritual and religious individuals.

REFERENCES

Beck, R. (2006). Communion and complaint: Attachment, object-relations, and triangular love perspectives on relationship with god. *Journal of Psychology & Theology, 34*(1), 43-52.

Chadwick, H. (1986). *Augustine: A very short introduction.* Oxford: Oxford University Press.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

Davis, D. E., Hook, J. N., & Worthington, E. L., Jr. (2008). Relational spirituality and forgiveness: The roles of attachment to God, religious coping, and viewing the transgression as a desecration. *Journal of Psychology and Christianity, 27*, 293-301.

Davis, D. E., Worthington, E. L., Jr.,. Hook, J. N., Van Tongeren, D. R., Green, J. D., & Jennings, D. J., Jr. (2009). *Assessing a victim's understanding of an offender's spirituality: Development of the Spiritual View of the Offender Scale.* Unpublished manuscript under editorial review, Virginia Commonwealth University, Richmond, VA.

Hall, T. W., & Edwards, K. J. (2002). The spiritual assessment inventory: A theistic model and measure for assessing spiritual development. *Journal for the Scientific Study of Religion, 41*, 341-357.

Kirkpatrick, L. A. (2005). *Attachment, evolution, and the psychology of religion.* New York: Guilford Press.

Krumrei, E., Pargament, K. I., & Mahoney, A. (2008). Turning to God to forgive: More than meets the eye. *Journal of Psychology and Christianity, 27*, 302-310.

Lampton, C., Oliver, G., Worthington, E.L., Jr., & Berry, J.W. (2006). Helping Christian college students become more forgiving: An intervention study to promote forgiveness as part of a program to shape Christian character. *Journal of Psychology and Theology, 33*, 278-290.

Leak, G. K., & Fish, S. (1989). Religious orientation, impression management, and self-deception: Toward a clarification of the link between religiosity and social desirability. *Journal for the Scientific Study of Religion, 28*, 355-359.

McCullough, M. E., Fincham, F. D., & Tsang, J.-A. (2003). Forgiveness, forbearance, and time: The temporal unfolding of transgression-related interpersonal motivations. *Journal of Personality and Social Psychology, 84*, 540-557.

McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology, 75*, 1586-1603.

McCullough, M. E., & Worthington, E. L., Jr. (1999). Religion and the forgiving personality. *Journal of Personality, 67*, 1141-1164.

McMinn, M. R., Fervida, H., Louwerse, K. A. Pop, J. L., Thompson, R. D., Trihub, B. L., & McLeod-Harrison, S. (2008). Forgiveness and prayer. *Journal of Psychology and Christianity, 27*, 101-109.

Morewedge, C. K., & Clear, M. E. (2008). Anthropomorphic God concepts engender moral judgment. *Social Cognition, 26*, 182-189.

Noar, S. M. (2003). The role of structural equation modeling in scale development. *Structural Equation Modeling, 10*, 622-647.

Pargament, K. I., Magyar, G. M., Benore, E., & Mahoney, A. (2005). Sacrilege: A study of sacred loss and desecration and their implications for health and well-being in a community sample. *Journal for the Scientific Study of Religion, 44*, 59-78.

Pargament, K. I., & Mahoney, A. (2005). Sacred matters: Sanctification as a vital topic for the psychology of religion. *International Journal for the Psychology of Religion, 15*, 179-198.

Rowatt, W. C., & Kirkpatrick, L. A. (2002). Two dimensions of attachment to God and their relation to affect, religiosity, and personality constructs. *Journal for the Scientific Study of Religion, 41*, 637-651.

Sandage, S. J., & Shults, F. L. (2007). Relational spirituality and transformation: A relational integration model. *Journal of Psychology and Christianity, 26*, 261-269.

Saroglou, V., Pichon, I., Trompette, L., Verschueren, M., & Dernelle, R. (2005). Prosocial Behavior and Religion: New Evidence Based on Projective Measures and Peer Ratings. *Journal for the Scientific Study of Religion, 44*, 323-348.

Schnarch, D. M. (1991). *Constructing the sexual crucible: An integration of sexual and marital therapy*. New York: Norton Press.

Shults, F. L., & Sandage, S. J. (2006). *Transforming spirituality*. Grand Rapids, MI: Baker Academic.

Stanley, S. M., & Markman, J. G. (1992). Assessing commitment in personal relationships. *Journal of Marriage and the Family, 54*, 595-608.

Stratton, S. P., Dean, J. B., Nooneman, A. J., Bode, R. A., & Worthington, E. L., Jr. (2008). Forgiveness interventions as spiritual development strategies: Workshop training, expressive writing about forgiveness, and retested controls. *Journal of Psychology and Christianity, 27*, 347-357.

Tsang, J.-A., McCullough, M. E., & Hoyt, W. T. (2005). Psychometric and rationalization accounts of the religion-forgiveness discrepancy. *Journal of Social Issues, 61*, 785-805.

Worthington, E. L., Jr. (2003). *Forgiving and reconciling: Bridges to wholeness and hope*. Downers Grove, IL: InterVarsity Press.

Worthington, E. L., Jr. (2006). *Forgiveness and reconciliation: Theory and practice*. New York: Brunner-Routledge.

Worthington, E. L., Jr. (2009). *Just forgiving*. Downers Grove, IL: InterVarsity Press.

Worthington, E. L., Jr. (in press). New spiritual information from the scientific study of forgiveness. In C. L. Harper, Jr. (Ed.), *Spiritual information* (pp.). Philadelphia: Templeton Foundation Press.

Worthington, E. L., Jr., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., et al. (2003). The Religious Commitment Inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology, 50*, 84-96.

Authors

DAVIS, DON, E. *Address*: Counseling program at Virginia Commonwealth University. *Title*: Doctoral student. *Degree*: MS. *Specializations*: Forgiveness, humility, and religious and spirituality.

WORTHINGTON JR., EVERETT L. *Address*: Counseling program at Virginia Commonwealth University (APA accredited) with affiliations with the Social Psychology and Developmental Psychology programs. *Title*: Professor of Psychology. *Degree*: PhD. *Specializations*: Forgiveness, the Hope-Focused Couple Approach, religion and spirituality, and humility.

HOOK, JOSHUA, N. *Address*: Counseling Psychology program at Virginia Commonwealth University. *Title*: Doctoral student. Degree: MS. *Specializations*: Forgiveness, couple counseling, sexuality, and religion/spirituality.

VAN TONGEREN, DARYL, R. *Address*: Social Psychology program at Virginia Commonwealth University. *Title*: Graduate student. *Degree*: MA. *Specializations*: meaning, morality, religion, and forgiveness.