The Religious and Spiritual Struggles Scale: Development and Initial Validation

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Many people experience struggle around religious and spiritual aspects of life, as shown in a steadily growing body of research. A need now exists for more comprehensive, reliable, concise measurement of religious and spiritual (r/s) struggles through a scale that covers multiple domains. This article describes the development and initial validation of a 26-item measure, the Religious and Spiritual Struggles (RSS) Scale. The measure assesses six domains of r/s struggle: *divine* (negative emotion centered on beliefs about God or a perceived relationship with God), *demonic* (concern that the devil or evil spirits are attacking an individual or causing negative events), *interpersonal* (concern about negative experiences with religious people or institutions; interpersonal conflict around religious issues), *moral* (wrestling with attempts to follow moral principles; worry or guilt about perceived offenses by the self), *doubt* (feeling troubled by doubts or questions about one's r/s beliefs), and *ultimate meaning* (concern about not perceiving deep meaning in one's life). Study 1 used factor analytic techniques in two adult samples (Ns = 400 and 483) to refine the item pool for the RSS. Study 2, which sampled 1141 undergraduates, showed very good fit for a six-factor model using confirmatory factor analysis. Study 2 also provided evidence of convergent, discriminant and predictive validity by relating RSS scores to measures of religiousness, r/s struggle and mental health. Several potentially important demographic differences emerged on the RSS. For example, undergraduates without committed romantic relationships and those who self-identified as homosexual reported greater r/s struggles across multiple domains.

Keywords: religion, spirituality, God, spiritual struggles, religious coping

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Religion and spirituality (r/s) constitute a major domain of life for many people across the world. By *spirituality,* we are referring to a search for the sacred—elements of life that are seen as manifestations of the divine, transcendent or ultimate, either inside or outside of a specific religious context (Pargament, 1999; Pargament, Mahoney, Exline, Jones, & Shafranske, 2013). *Religion* takes place in the larger context of established institutions and structures that aim to facilitate spirituality (Pargament et al., 2013). Over the past several decades, many studies have pointed to potential benefits of r/s. For example, r/s can serve as a source of attachment security (see Granqvist & Kirkpatrick, 2013, for a review) or comfort (e.g., Exline, Yali,

& Sanderson, 2000) or a facilitator of self-control (e.g., McCullough & Willoughby, 2009). Given these potential benefits, it may be easy to view r/s mainly as resources—as sources of comfort, social support or meaning, for example. Yet if r/s are framed exclusively in resource terms, one might miss another important point: Many people experience struggles around r/s, and these struggles have shown consistent associations with difficulties in the areas of mental health and well-being (for recent reviews, see Exline, 2013; Exline & Rose, 2013; Pargament, 2007). To date, there are few measures that have made r/s struggles their primary focus. A need now exists for a measure that can provide more comprehensive, reliable, concise measurement of multiple domains of struggle. This article describes the development and preliminary validation of a new self-report measure of r/s struggles, one that assesses six types of struggle.

Religious/Spiritual (R/S) Struggles from a Psychological Perspective

Religious/spiritual (r/s) struggles occur when some aspect of r/s belief, practice or experience becomes a focus of negative thoughts or emotions, concern or conflict (Exline, 2013). R/s struggle can take many forms (for reviews, see Exline & Rose, 2005, 2013; Pargament, 2007; Pargament, Murray-Swank,

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Magyar, & Ano, 2005). Two types of struggles focus on beliefs about supernatural agents: *Divine struggle* (e.g., Exline, 2013; Exline & Rose, 2013; Pargament et al., 2005) involves negative emotion or conflict centered on beliefs about a deity or a perceived relationship with a deity. (The meaning of *divine struggle* here differs from its usage in some religious studies sources, where it can refer to a struggle experienced by a deity, e.g., Rayappan, 2002; Tunyogi, 1991.) *Demonic struggle* (e.g., Exline & Rose, 2013) involves concern that the devil or evil spirits are attacking an individual or causing negative events. *Interpersonal struggle* (Exline, 2013; Exline & Rose, 2013; Pargament et al., 2005) involves negative experiences with religious people or institutions or conflict with others around religious issues. Other r/s struggles are *intrapersonal* (Exline, 2013; Pargament et al., 2005): They have an inward focus on one's own thoughts or actions. Three types of intrapersonal struggle are of interest here. The first involves *moral struggle,* in which a person wrestles with attempts to follow moral principles or feels intense guilt in response to perceived transgressions. Two other intrapersonal struggles are *doubt-related struggle*, in which people are troubled by doubts or questions about their r/s beliefs, and *struggle around ultimate meaning,* in which concern centers on a lack of perceived deep meaning in life. (Note that the notion of ultimate significance or meaning is a part of several definitions of spirituality (e.g., Pargament et al., 2013); however, ultimate meaning does not necessarily imply belief in the supernatural.)

Several recent findings suggest that people may be reluctant to disclose certain types of r/s struggle. For example, many people see anger toward God as morally wrong (Exline, Kaplan, & Grubbs, 2012), and those who disclose such feelings to others may receive stigmatizing responses (Exline & Grubbs, 2011). Yet despite the potential barriers to reporting r/s struggles, it has become clear that many people experience and report r/s struggles (e.g., Bryant & Astin, 2008; Johnson & Hayes, 2003; McConnell, Pargament, Ellison, & Flannelly, 2006).

There is now an extensive literature linking r/s struggles with emotional distress and poor physical health (for reviews, see Ano & Vasconcelles, 2005; Exline, 2013; Exline & Rose, 2005, 2013; Smith, McCullough, & Poll, 2003; Pargament, 2007; Pargament et al., 2005). Many studies have documented links between r/s struggles and emotional distress (e.g., Bryant & Astin, 2008; Ellison & Lee, 2010), including depressive symptoms (e.g., Ano & Vasconcelles, 2005), anxiety and signs of other emotional disorders (e.g., McConnell et al., 2006), and suicidal ideation (e.g., Exline et al., 2000; Rosmarin, Bigda-Peyton, Öngur, Pargament, & Björgvinsson, 2013). Although most studies have been cross-sectional, longitudinal work has shown that r/s struggles predict increases in depressive symptoms (e.g., Park, Brooks, & Sussman, 2009; Pirutinsky, Rosmarin, Pargament, & Midlarsky, 2011), worsening of HIV/AIDS symptoms (Trevino et al., 2010), poorer rehabilitation outcomes (Fitchett, Rybarczyk, DeMarco, & Nicholas, 1999), and even higher mortality rates (Pargament, Koenig, Tarakeshwar, & Hahn, 2001). Taken together, these findings highlight the clinical relevance of r/s struggles.

Assessment of R/S Struggles

Prior Attempts to Assess R/S Struggle

Many of the existing measures of r/s struggle focus on one specific domain of struggle. By far, divine struggle has received the most attention. Five of the seven struggle items in the widely used Brief RCOPE (Pargament, Smith, Koenig, & Perez, 1998) assess divine struggle. Also, the Cancer and Deity Scale (Bowman, Beitman, Palesh, Prez, & Koopman, 2009), the Attitudes toward God Scale-9 (Wood et al., 2010), the Spiritual Assessment Inventory (Hall & Edwards, 1996, 2002), and measures of attachment to God (Beck & McDonald, 2004; Rowatt & Kirkpatrick, 2002) and anger toward God (e.g., Exline, Park, Smyth, & Carey, 2011) tap divine struggle. Other measures assess religious doubt (e.g., Altemeyer & Hunsberger, 1997; Krause & Ellison, 2009), a search for life's meaning (Steger, Frazier, Oishi, & Kaler, 2006), interpersonal concerns around religion (e.g., Ellison, Krause, Shepherd, & Chaves, 2009), fear and guilt around religious issues (Exline et al., 2000) and related constructs such as scrupulosity (e.g., Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002). Although many of these measures show good evidence of reliability and validity, it would be useful to assess these different types of struggle in one measure.

Several measures do exist that assess multiple domains of r/s struggle. The most comprehensive is the full RCOPE (Pargament, Koenig, & Perez, 2000). The RCOPE is a broad-based measure of both positive and negative religious coping, where negative religious coping can be framed in terms of r/s struggle. However, the full RCOPE is not often used because of its length (105 items; 21 subscales with five items each, although three-item subscales can also be used). More widely used is the 14-item Brief RCOPE (Pargament et al., 1998), which has two subscales: positive and negative religious coping, each with seven items. Although the scale is quite thorough in its assessment of divine struggle (five items), it contains only one demonic item, one interpersonal item, and no intrapersonal items. Another measure that includes multiple domains is the Religious Comfort and Strain Scale (Exline et al., 2000). However, this measure assesses only three types of struggle: alienation from God (divine), fear and guilt (intrapersonal), and interpersonal. Although all of these measures show some utility, a need remains for a relatively brief measure that can assess supernatural, interpersonal and intrapersonal struggles.

Current Measurement Needs

A need now exists for a self-report measure that meets several standards. First, the measure should be reliable yet concise. Second, the measure should assess supernatural, interpersonal and intrapersonal struggles (e.g., Exline, 2013; Pargament, 2007). Third, the items should focus directly on the subjective experience of r/s struggle (e.g., negative thought or emotion, concern, interpersonal or intrapersonal conflict) rather than on thoughts or behaviors used to cope with struggle. Fourth, it would be helpful to have a measure that could be used flexibly, either focusing on a specific event (as in the religious coping measures) or a given timeframe (e.g., now; the past week or month). Fifth, such a measure would ideally have relevance to people who self-identify as r/s and those who do not—and by those who believe in super-

natural agents (e.g., God or gods; the devil or evil spirits) as well as those who do not. Sixth, the measure should avoid language that is highly specific to any one theistic tradition (e.g., words such as "church," "temple," "sin," "salvation"). This article describes the development of a measure that could begin to meet these needs.

Overview of Studies: Scale Development Process and Key Hypotheses

Our aim was to develop a concise, reliable self-report measure to assess a variety of r/s struggles. We realized that we could not be exhaustive, either in terms of conceptual breadth or in terms of applicability to diverse faith traditions. Our more modest goal was to tap into the three basic forms of struggle (supernatural, interpersonal, intrapersonal) that had received attention in prior research. More specifically, we assessed six types of struggle: two types of supernatural struggle (divine and demonic), interpersonal struggle, and three types of intrapersonal struggle (moral, ultimate meaning, and doubt). Our aim was to generate a measure with four to five items per subscale, for a total of 24–30 items. We began our task by conducting factor analytic and validation studies in several samples (two general adult samples and one undergraduate sample). We also examined demographic differences on the new measure.

Our aim was to develop a measure that could be used flexibly, focusing either on a specific timeframe or responses to a specific life event. We thus varied our prompts across the surveys with this aim in mind. Study 1a focused on a specific timeframe (the past month), as did Study 2 (past few months). Study 1b focused on responses to a stressful event from the past year. If a similar factor structure were to emerge regardless of which prompt was used, this would suggest more flexibility in use of the measure.

Study 1 involved a two-stage process, using exploratory factor analyses to refine the item pool and generate a draft version of the scale. Study 2 began with a confirmatory factor analysis (CFA) for a six-factor model. Study 2 also included validity tests for the new measure, the Religious and Spiritual Struggles (RSS) Scale. Because we deliberately used the language of negative emotion and conflict in our items, we expected moderate correlations with other measures of emotional distress (Study 2), as found in prior work on r/s struggle (for reviews, see Ano & Vasconcelles, 2005; Exline, 2013). Also, because past work has shown some significant ties among different types of struggle, we expected moderate correlations between RSS subscales and other indicators of r/s struggle (Study 2).

We also performed tests of convergent and discriminant validity for each subscale (Study 2). For each RSS subscale, we included one to three other measures of related r/s struggle constructs. We expected that in regression equations, the RSS subscales of interest would stand out, predicting unique variance in the measures to which they were conceptually similar. For instance, we predicted that the Divine subscale would predict unique variance in other measures of divine struggle. Demonic struggle should predict a tendency to attribute r/s struggles to the devil, whereas moral struggle should predict attribution of such struggle to the self. There were also some cases in which we expected more than one RSS subscale to predict unique variance in other indicators of r/s struggle, as elaborated in Study 2.

In terms of mental health measures, we expected struggle around ultimate meaning to emerge as a clear predictor of emotional distress (e.g., depression, anxiety, anger, lower life satisfaction), because this struggle reflects difficulties in a core life domain: a sense that one's life lacks deep meaning or purpose. Because many studies have shown links between divine struggle and emotional distress (e.g., Ellison & Lee, 2010; McConnell et al., 2006), we expected similar connections here. Some more nuanced predictions could also be made about certain RSS subscales and mental health measures. For example, because interpersonal conflicts around religion often include offenses or disagreements related to other people, we expected the RSS Interpersonal subscale to predict unique variance in state anger. We concluded our project with exploratory analyses of demographic differences on the RSS subscales.

Studies 1a and 1b: Exploratory Factor Analysis and Refinement of Item Pool

In preparation for our first study, we generated 61 items to assess six types of r/s struggle. Categories included supernatural (divine: 16 items; demonic: 8 items), interpersonal (13 items), and three types of intrapersonal struggle: moral (10 items), ultimate meaning (6 items), and doubt (8 items). The pool contained new items by the project team and items from existing measures that had been authored or coauthored by team members: the RCOPE (Pargament et al., 2000), the Religious Comfort and Strain Scale (Exline et al., 2000), and the Attitudes toward God Scale-9 (Wood et al., 2010). The aim of Study 1 was to develop a draft measure via exploratory factor analysis (EFA). Study 1a refined the initial item pool. Study 1b included further refinement of items to form the 26-item Religious and Spiritual Struggles (RSS) Scale.

Method

Participants and procedure. Participants for Study 1 were U. S. adults from Amazon's Mechanical Turk (MTurk) worker database, which now has over 500,000 workers. Social science research has shown that MTurk samples are similar to other adult samples and that results derived from this source are psychometrically sound (e.g., Buhrmeister, Kwang, & Gosling, 2011). Each participant received $0.50 for completing a web-based survey entitled "Spiritual Struggles Scale" (Study 1a) or "Spiritual Struggles Follow-Up" (Study 1b). Surveys included several validation items to confirm that participants were paying attention. Anyone who responded incorrectly to a validation item was exited from the survey. For Study 1a, $N = 400$: 262 women, 138 men, $M_{age} = 33.9$ years, $SD = 13.0$, ages ranging from 18 to 88. For Study 1b, $N = 483$: 316 women, 167 men; $M_{age} = 34.6$ years, $SD = 13.1$, ages ranging from 18 to 82. Table 1 presents additional demographic data.

Measures: Demographics. The survey assessed gender, age, race/ethnicity, marital status and religious affiliation.

Religious/spiritual struggle items. In Study 1a, the prompt for the 61 r/s struggle items read, "At times in life, many people experience struggles, concerns or doubts regarding spiritual or religious issues. Over the last month, to what extent have you had each of the experiences listed below? There are no right or wrong answers; the best answer is the one that most accurately reflects your experience." Options included *not at all* (1), *a little bit* (2),

Table 1
Demographic Variables: Studies 1 and 2

	Study 1a (Adult web) (*N* = 400)	Study 1b (Adult web) (*N* = 483)	Study 2 (Undergraduates) (*N* = 1141)
Ethnicity (Some selected multiple categories)			
White/Caucasian	317 (79%)	388 (80%)	820 (72%)
Asian/Pacific Islander	32 (8%)	38 (8%)	164 (14%)
African American/Black	30 (8%)	47 (10%)	103 (9%)
Latino/Hispanic	22 (6%)	24 (5%)	102 (9%)
Native American/Amer. Indian/Alaska Native	13 (3%)	10 (2%)	18 (2%)
Middle Eastern	0 (0%)	1 (0.2%)	11 (1%)
Other/mixed	3 (1%)	1 (0.2%)	14 (1%)
Marital status			
Single, not living with partner*	149 (37%)	200 (41%)	1114 (98%)
Married	157 (39%)	156 (32%)	8 (1%)
Living with romantic partner	66 (16%)	89 (18%)	11 (1%)
Divorced/separated	25 (6%)	36 (8%)	0 (0%)
Widowed	2 (0.5%)	3 (1%)	0 (0%)
*Single but in committed relationship (Study 3)	—	—	[407 (36%)]
Highest education level			
Some high school	7 (2%)	10 (2%)	—
High school diploma	42 (10%)	61 (13%)	—
Technical college/trade school	30 (8%)	35 (7%)	—
College courses/degree	261 (65%)	284 (59%)	—
Graduate courses/degree	60 (15%)	93 (20%)	—
Household income			
Under $25,000	102 (26%)	145 (30%)	—
$25,000 to $49,999	123 (31%)	148 (31%)	—
$50,000 to $74,999	76 (19%)	102 (21%)	—
$75,000 to $100,000	56 (14%)	44 (9%)	—
Over $100,000	42 (10%)	44 (9%)	—
Religious affiliation			
Catholic	69 (17%)	79 (16%)	204 (18%)
Protestant	100 (25%)	94 (20%)	302 (27%)
Eastern Orthodox	5 (1%)	—	8 (1%)
Unspecified Christian	69 (17%)	85 (18%)	381 (34%)
Jewish	10 (2%)	15 (3%)	12 (1%)
Muslim	3 (1%)	3 (1%)	9 (1%)
Hindu	4 (1%)	4 (1%)	8 (1%)
Buddhist	4 (1%)	8 (2%)	7 (1%)
Spiritual but not religious	14 (4%)	24 (5%)	6 (0.5%)
Atheist	26 (6%)	47 (10%)	48 (4%)
Agnostic	42 (10%)	60 (12%)	56 (5%)
No affiliation	42 (10%)	49 (10%)	69 (6%)
Other/unsure	11 (3%)	15 (3%)	8 (1%)

somewhat (3), *quite a bit* (4) and *a great deal* (5). Participants were asked to skip items that did not make sense within their belief system. Factor analysis results were similar regardless of whether those who skipped questions were included (with missing items filled in as 1s) or removed.

In Study 1b, participants were asked to focus on the most stressful event they had faced in the past year. They then read this prompt: "In response to this specific event, have you responded in each of these ways?" The list included 48 struggle items: 37 retained from Study 1a plus 6 new doubt items and 5 new interpersonal items. Response options were from 1 to 5 (as in Study 1a), except that a "n/a" (*does not apply*) column was added. We recoded n/a responses as 1s (*not at all*) after confirming that factor analyses yielded the same factors regardless of whether those endorsing n/a were included. Scoring and descriptive statistics are described in the Results.

Results and Discussion

Study 1a: Initial refinement of item pool. Because we expected moderate correlations among factors, we entered the 61 items into a factor analysis using maximum likelihood extraction and direct oblimin rotation (Fabrigar, Wegener, MacCallum, & Strahan, 1999). A principal components analysis yielded similar findings. As space constraints do not permit item-by-item descriptions of all decisions, we instead provide a summary of our decision process.

The original solution yielded 11 factors with eigenvalues over 1 (Kaiser, 1960), accounting for 70% of the total variance. Factors 7, 8, 10 and 11 were difficult to interpret. This ambiguity, combined with a scree plot and results of a parallel analysis (Horn, 1965; O'Connor, 2000), suggested that these four factors should not be retained. We did retain items from Factor 9, which focused on interpersonal struggles, for closer examination in Study 1b. We

deleted other items because of low loadings (less than .50), sub-stantial cross-loadings (.30 or higher on pattern matrix; Fabrigar et al., 1999), large skews, or potential ambiguity in interpretation.

A few details from Study 1a are important to note. First, two interpersonal factors emerged. One focused on negative feelings or experiences regarding religion or religious people. Another focused on interpersonal problems faced by religious people. We developed five new interpersonal items for Study 1b in an attempt to clarify whether interpersonal struggles would be best framed as one versus two factors. Second, we recognized that four items intended to assess doubt actually assessed the idea of faith being lost or shattered, which we concluded was better framed as an outcome rather than a form of struggle; we thus dropped those four items. We retained three of the doubt items and developed six new ones for Study 1b. Rather than overtrimming, we kept an average of six items per subscale (37 items from the initial pool of 61), with the aim of making final decisions in Study 1b.

Study 1b: Final item selection. Approximately one year after Study 1a, the 48 items (37 retained plus 11 new: 9 divine, 5 demonic, 15 interpersonal, 9 doubt, 5 ultimate meaning, 5 moral) were administered to a second adult sample from the MTurk worker database ($N = 483$). We entered the 48 items into a maximum-likelihood analysis with direct oblimin rotation. The initial solution yielded seven factors with eigenvalues over 1; however, the last factor, which had only two high-loading items, focused on a specific interpersonal issue that we viewed as too narrow to warrant a separate factor (concern that others did not share or respect one's beliefs). This last factor also fell below the acceptable threshold on a parallel analysis (O'Connor, 2000). We thus deleted the two items with high loadings on this subscale. We continued trimming items based on low loadings (less than .5 on pattern matrix or lowest loader on subscale; 15 items) or excessive conceptual overlap with other items or measures (five items). This left 26 items.

We conducted a final EFA in the second sample with the trimmed pool of 26 items. This EFA, combined with analysis of a scree plot, suggested a six-factor solution corresponding to our six proposed domains, explaining 76% of total variance. Table 2 shows eigenvalues, percent of variance explained, and the pattern matrix with items and factor loadings. (Structure matrix is in Appendix 1, online supplemental materials.) Items were assigned to factors as shown in boldface.

Because subscales were similar in size (4–5 items), the total RSS was scored by averaging all 26 items ($M = 1.8$, $SD = 0.7$, $\alpha = .91$). Each subscale was scored by averaging across items. All subscales correlated positively with the total RSS score and with each other. Correlations ranged from .16 (Interpersonal and Demonic) to .68 (Divine and Doubt), $ps < .001$. (For a full matrix of intercorrelations, see Appendix 2, online supplemental materials.) Bonferroni-corrected comparisons showed that Ultimate Meaning was endorsed most highly ($M = 2.3$, $SD = 1.2$, $\alpha = .89$, $p < .05$ for all comparisons), followed by Interpersonal ($M = 1.8$, $SD = 1.0$, $\alpha = .85$), Moral ($M = 1.9$, $SD = 1.0$, $\alpha = .88$), and Doubt ($M = 1.8$, $SD = 1.0$, $\alpha = .90$), all endorsed at similar levels (for these three, $p > .05$). Divine ($M = 1.7$, $SD = 1.0$, $\alpha = .93$) and Demonic ($M = 1.6$, $SD = 1.0$, $\alpha = .93$) scores were lower than the other subscales ($p < .05$ except for marginal difference between

Divine and Moral, $p = .07$), but did not differ significantly from each other ($p > .05$).

Study 2: Confirmatory Factor Analysis and Initial Validity Testing. Study 2 began with a confirmatory analysis (CFA) of the proposed 26-item measure, followed by several validity tests. To complement the MTurk studies, this study used a large sample of undergraduates and focused on struggles within a specific timeframe (the past few months). Study 2 included various measures of r/s struggle and mental health for validity testing.

Method

Participants and procedure. Participants were 1141 under-graduates (427 men, 712 women) from three U.S. universities. Two of the universities are located in the Midwest; of these, one is public and the other private. The third site, a private Christian university, is located on the West Coast. All participants received partial credit in introductory psychology. The mean age was 19.0 years ($SD = 1.8$). Table 1 provides additional demographic data.

Measures. Measures are listed below in the order in which they appeared in the survey.

Demographics. As in Study 1, participants reported their gen-der, age, relationship status (including, for singles, whether or not they were in a committed relationship; 36% said yes), and race/ethnicity. The survey also assessed sexual orientation: heterosex-ual (94%), homosexual (2%), bisexual (2%), asexual (0.5%), and prefer not to say (2%).

Religiousness. The survey included a five-item measure of religious belief salience by Blaine and Crocker (1995), with items (e.g., "Being a religious person is important to me") rated from *strongly disagree* (0) to *strongly agree* (10). Participants also rated their participation in five religious behaviors (e.g., praying or meditating; attending r/s services or meetings) over the past month from 0 (*not at all*) to 5 (*more than once a day*) (Exline et al., 2000). Both measures were scored by averaging across items. For belief salience, $M = 6.3$, $SD = 3.4$, $\alpha = .97$; for participation, $M = 1.8$, $SD = 1.3$, $\alpha = .92$. The two measures were highly correlated, $r(1138) = .76$, $p < .01$. As in earlier studies (e.g., Exline & Grubbs, 2011), we formed an index of religiousness by standard-izing and averaging scores on the two measures ($M = 0.0$, $SD = 0.9$, $\alpha = .86$).

Doubts about God's existence. After rating their belief in God, participants rated responses to this item from *not at all* (0) to *extremely* (10): "Do you have doubts or questions about whether God exists?" ($M = 3.6$, $SD = 3.8$).

Religious and spiritual struggles (RSS). Participants read, "Over the past few months, to what extent have you had each of the experiences listed below?" They then completed the 26 RSS items using a scale from 1 (*not at all/does not apply*) to 5 (*a great deal*). The full scale and subscales were scored by averaging across items. The Results section gives descriptive statistics.

Expecting negative social responses to struggle. Drawing from Exline and Grubbs (2011), participants were asked, "Imagine that you were having a struggle (e.g., questions, tensions, conflict) related to religion or spirituality. How do you think that most of your friends and family members would respond if you told them about this struggle?" Two items assessed negative responses: "They would say or do things to make me feel guilty or ashamed" and "They would suggest that it was wrong to have such feelings."

Table 2

Study 1b: Exploratory Factor Analysis Showing Final 26 Items and Factor Loadings From Pattern Matrix[1] (Maximum Likelihood Extraction With Direct Oblimin Rotation)

		Factor loadings and descriptive statistics					
		1 Divine	2 Demonic	3 Interpers	4 Moral	5 Ultimate Meaning	6 Doubt
	Eigenvalue	10.0	3.0	2.8	1.7	1.3	1.0
	% of var.	38.3%	11.5%	10.6%	6.5%	5.0%	3.8%
	M (*SD*)	1.7 (1.0)	1.6 (1.0)	1.8 (1.0)	1.9 (1.0)	2.3 (1.2)	1.8 (1.0)
	Alpha	.93	.93	.85	.88	.89	.90
Items[1]	Fig. 1 label						
Felt as though God had let me down	Di5	**.889**	.031	.045	.035	.067	.045
Felt angry at God	Di1	**.853**	.033	−.020	−.038	−.005	−.036
Felt as though God had abandoned me	Di3	**.809**	−.076	−.003	.057	−.008	−.122
Felt as though God was punishing me	Di4	**.726**	−.082	−.011	−.143	.038	.033
Questioned God's love for me	Di2	**.661**	−.062	.042	−.019	−.020	−.165
Felt tormented by the devil or evil spirits	De4	.029	**−.914**	.055	.066	.106	.035
Worried that the problems I was facing were the work of the devil or evil spirits	De3	−.028	**−.911**	.012	.015	.039	−.034
Felt attacked by the devil or by evil spirits	De1	.059	**−.804**	−.041	−.054	−.027	.019
Felt as though the devil (or an evil spirit) was trying to turn me away from what was good	De2	.040	**−.801**	−.003	−.109	−.037	−.023
Felt hurt, mistreated, or offended by religious/spiritual people	I5	.036	−.012	**.841**	.042	−.009	.027
Felt rejected or misunderstood by religious/spiritual people	I2	.078	−.037	**.791**	−.061	.020	.041
Felt as though others were looking down on me because of my religious/spiritual beliefs	I3	−.033	−.054	**.698**	−.107	−.008	−.013
Had conflicts with other people about religious/spiritual matters	I1	−.107	−.107	**.675**	−.001	−.078	−.156
Felt angry at organized religion	I4	.054	.141	**.617**	.022	.084	.032
Wrestled with attempts to follow my moral principles	Mo3	−.070	.045	.044	**−.878**	.082	−.034
Worried that my actions were morally or spiritually wrong	Mo2	.068	−.054	−.022	**−.758**	−.004	−.009
Felt torn between what I wanted and what I knew was morally right	Mo4	.063	.028	.051	**−.752**	−.013	−.009
Felt guilty for not living up to my moral standards	Mo1	.015	−.107	.003	**−.673**	.024	−.032
Questioned whether life really matters	Me3	.063	−.055	.046	.137	**.884**	.007
Felt as though my life had no deeper meaning	Me2	−.006	−.058	−.011	−.071	**.778**	−.011
Questioned whether my life will really make any difference in the world	Me4	−.013	.000	−.020	−.138	**.729**	−.008
Had concerns about whether there is any ultimate purpose to life or existence	Me1	.024	.044	.011	−.017	**.649**	−.193
Struggled to figure out what I really believe about religion/spirituality	Do1	.070	.076	−.017	−.052	.051	**−.797**
Felt confused about my religious/spiritual beliefs	Do3	.091	.027	−.001	.034	.066	**−.787**
Felt troubled by doubts or questions about religion or spirituality	Do2	.123	−.044	.040	.028	.053	**−.729**
Worried about whether my beliefs about religion/spirituality were correct	Do4	−.053	−.061	.038	−.090	.016	**−.726**

[1] Structure matrix appears in the appendix. [2] Items for each factor are listed in descending order based on loadings. Boldfaced text indicates items assigned to each factor. All RSS subscales correlated positively, despite negative loadings listed for Factors 2, 4 and 6 from this factor analysis (maximum likelihood; direct oblimin).

Items were rated from 0 (*not at all*) to 10 (*extremely*) and were averaged (*M* = 2.5, *SD* = 2.6, α = .80).

Religious doubt. Participants completed 20 items by Altemeyer and Hunsberger (1997), each rated from 0 (*this issue has not caused any questions or doubts for me*) to 6 (*this issue has caused extreme questions or doubts for me*). Items were averaged (*M* = 2.2, *SD* = 1.6, α = .96).

Instability in perceived relationship with God. Participants endorsing some belief in a relationship with God (*n* = 1022) completed the nine-item Instability subscale from the Spiritual Assessment Inventory (Hall & Edwards, 2002). Items were rated from 1 (*not at all true*) to 5 (*very true*) and averaged (*M* = 2.0, *SD* = 0.8, α = .88).

Anger/disappointment toward God. Participants endorsing some belief in a relationship with God (*n* = 1022) completed the four-item Anger/Disappointment subscale of the Attitudes toward God Scale-9 (ATGS-9; Wood et al., 2010). Items were rated from 0 (*not at all*) to 10 (*extremely*) and averaged (*M* = 1.5, *SD* = 2.4, α = .91).

Religious fear and guilt. Participants completed a six-item measure of religious fear and guilt (Exline, Grubbs, & Homolka, in press) adapted from the Religious Comfort and Strain Scale (Exline et al., 2000). Items were rated from 0 (*not at all*) to 10 (*extremely*) and averaged (*M* = 2.6, *SD* = 2.2, α = .85).

Life satisfaction. A five-item measure by Diener, Emmons, Larsen, and Griffin (1985) assessed life satisfaction. Respondents rated their agreement with five statements from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses were summed (*M* = 23.1, *SD* = 6.3, α = .87).

Depressive symptoms. The survey included the 10-item version of the Center for Epidemiological Studies-Depression Scale (Andresen, Malmgren, Carter, & Patrick, 1994). Participants rated the extent to which they have experienced 10 depressive symptoms in the past week from 0 (*rarely or none of the time; less than once a day*) to 3 (*most or all of the time; 5–7 days*). Items were summed, with two reverse-scored (*M* = 10.7, *SD* = 5.4, α = .82).

Generalized anxiety. Participants completed the Generalized Anxiety Scale-7 (Spitzer, Kroenke, Williams, & Lowe, 2006). Respondents rated the extent to which seven symptoms of generalized anxiety had bothered them within the past 2 weeks, using a scale from 0 (*not at all*) to 3 (*nearly every day*). Responses were summed (*M* = 14.2, *SD* = 5.2, α = .91).

State anger. The survey included the 15 state-based items from the State Trait Anger Scale (Spielberger, Jacobs, Russell, & Crane, 1983). Items were rated from 1 (*almost never*) to 4 (*almost always*). Responses were summed (*M* = 26.3, *SD* = 9.6, α = .95).

Meaning in life. The 10-item Meaning in Life Questionnaire (Steger et al., 2006) assessed presence of and search for meaning in life using items rated from 1 (*absolutely untrue*) to 7 (*absolutely true*). Subscales were scored by averaging. For presence of meaning, *M* = 4.8, *SD* = 1.3, α = .89; for search for meaning, *M* = 4.4, *SD* = 1.4, α = .90.

Loneliness. We included a brief loneliness measure designed for large survey studies (Hughes, Waite, Hawkley, & Cacioppo, 2004). Three items were assigned ratings of 1 (*hardly ever*), 2 (*some of the time*), or 3 (*often*). Responses were summed (*M* = 5.2, *SD* = 1.8, α = .82).

Responsibility attributions regarding a specific struggle. As in earlier projects (e.g., Exline & Grubbs, 2011), participants who reported a specific r/s struggle from the past few months (*n* = 403) rated the responsibility of various parties for the struggle from 0 (*not at all*) to 10 (*extremely*). Four items were of interest here: oneself ("you"; *M* = 7.3, *SD* = 3.1), God (*M* = 2.8, *SD* = 3.5), another person or group (*M* = 4.6, *SD* = 3.6), and the devil or evil spirits (*M* = 3.1, *SD* = 3.6).

Results and Discussion

Confirmatory factor analysis. We used AMOS version 20 to conduct a CFA of the RSS using six factors (see Figure 1; for summaries of fit indices, see Bentler, 1990; Jackson, Gillaspy, & Purc-Stephenson, 2009). The model showed a very good fit to the data, χ^2(284, *N* = 1141) = 878.03, *p* = .000, CFI = .968, RMSEA = .042, PCLOSE = 1.0. (Note: significant chi-squares are common in large samples (e.g., Bentler & Bonett, 1980) and do not necessarily indicate poor fit, particularly when other, more reliable indices, indicate good fit.) Good fit indices were also found when we limited the sample to participants who were white/Caucasian (RMSEA = .046), nonwhite (RMSEA = .052), women (.RMSEA = .052), men (RMSEA = .041), Christians only (RMSEA = .040), and non-Christians only (RMSEA = .059).

RSS descriptive statistics. In the Study 2 undergraduate sample, Bonferroni-corrected comparisons showed the highest scores for Moral (*M* = 2.5, *SD* = 1.1, α = .88; *p* < .05 for comparisons against all other subscales), followed by Ultimate Meaning (*M* = 2.0, *SD* = 1.0, α = .87, *p* < .05 for comparisons against all other subscales). Next were Doubt (*M* = 1.9, *SD* = 1.0, α = .89) and Interpersonal (*M* = 1.8, *SD* = 0.9, α = .82), which did not differ from each other (*p* > .05). Demonic was significantly lower (*M* = 1.7, *SD* = 1.0, α = .90, *p* < .05), with Divine endorsed the least (*M* = 1.6, *SD* = 0.8, α = .89, *p* < .05). As in Study 1b, the RSS subscales were positively correlated, with *r*s ranging from .28 (Moral and Demonic) to .58 (Ultimate Meaning and Divine; Doubt and Divine; Ultimate Meaning and Doubt), all *p*s < .001. (For a full matrix of intercorrelations, see Appendix 2, online supplemental materials.)

Average RSS scores in Study 2 (*M* = 1.9, *SD* = 0.7) did not differ significantly from those in Study 1b (*M* = 1.8, *SD* = 0.8), *t*(1618) = 1.14, *ns*. These means were similar despite different types of samples (U.S. adults in Study 1; college students in Study 2) and prompts (event-specific in Part 2 of Study 1; past several months in Study 2). In future work, we would expect to see variability in RSS scores based on different types of samples (e.g., higher scores among those experiencing traumatic events or mental health crises) and prompts (e.g., higher scores if focusing on a specific stressful event as opposed to more typical, everyday feelings).

Associations between the RSS and religiousness. We expected several correlations between religiousness and RSS subscale scores. First, because religion often involves attempts to regulate behavior according to moral codes (McCullough & Willoughby, 2009), we expected a positive correlation between religiousness and the Moral subscale. Second, we expected a positive correlation between religiousness and the Demonic subscale, because religiousness should be associated with more belief in supernatural agents, including the devil and evil spirits. In addition, religious individuals from these samples were predominantly Judeo-Christian, and biblical narratives discuss demonic activity (e.g., Deuteronomy 32:17; Matthew 8:16). Third, because religion
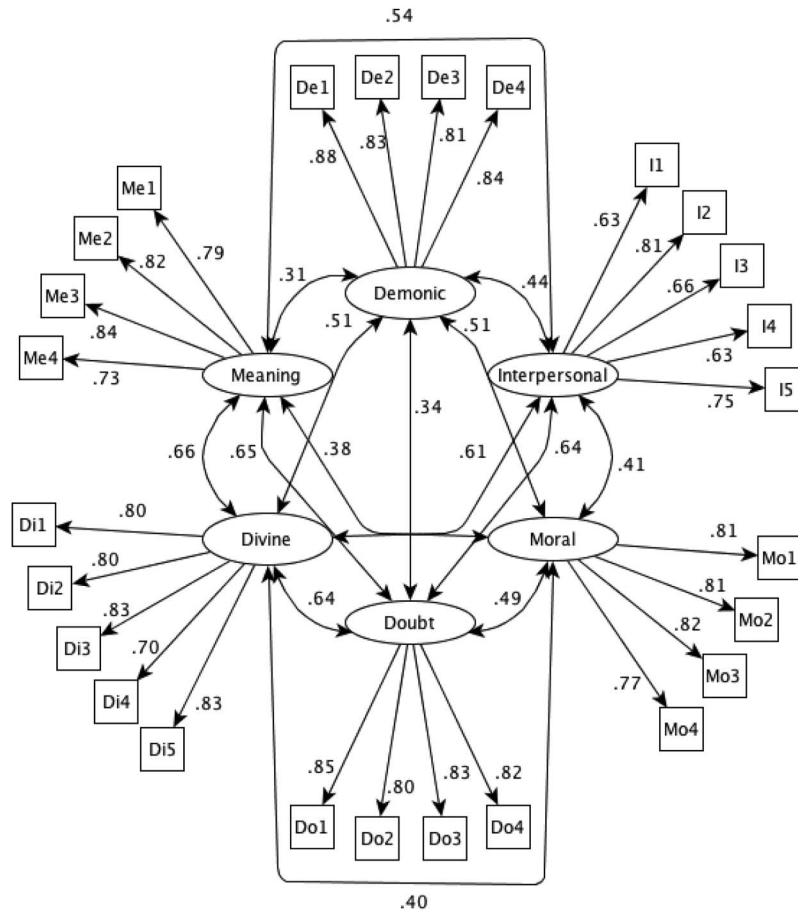
Figure 1. Study 2: Confirmatory factor analysis of six-factor model for Religious and Spiritual Struggles (RSS) Scale. Note. Fit indices: $\chi^2(284, N = 1141) = 878.03$, $p = .000$, CFI = .968, RMSEA = .042, PCLOSE = 1.0. See Table 2 for items corresponding to the labels (e.g., Di5; Mo3).

often provides people with a meaning system (Park, Edmondson, & Hale-Smith, 2013), we expected a negative correlation between religiousness and the Ultimate Meaning subscale. These hypotheses were clearly supported (see Table 3). Based on these results, we decided that when examining links between RSS subscales and other variables, it would be prudent to control for religiousness.

Mixed predictions could be made about religiousness and the RSS Doubt subscale. On the one hand, high religiousness would suggest greater acceptance of religious beliefs and teachings, which would point toward less doubt (see Hunsberger, Pratt, & Pancer, 2002). On the other hand, people might need a certain level of religious engagement in order to devote time and energy to questioning their beliefs. Also, in comparison to less religious people, highly religious people may feel more concern or worry about their doubts. In this sample the correlation between religiousness and Doubt was not significant, perhaps reflecting these competing ideas about religiousness and tendencies to doubt or question beliefs. Supplemental regressions revealed a modest but significant quadratic relationship between religiousness and Doubt ($R^2 = .013$, $p < .01$). For people who were not religious (>1 SD below the mean), there was a positive correlation between religiousness and Doubt, $r(220) = .19$, $p < .01$. However, for other

participants (i.e., average or high religiousness), there was a small negative correlation between religiousness and Doubt, $r(921) = -.10$, $p < .01$. Also, using Bonferroni-corrected mean comparisons, the moderately religious group (within 1 SD of the mean) had higher Doubt scores ($M = 1.9$, $SD = 1.0$) than the most religious group ($M = 1.7$, $SD = 0.8$; $p < .01$). The least religious group scored between the other two groups ($M = 1.8$, $SD = 1.0$, ns).

The correlation between religiousness and the RSS Divine subscale was not significant (see Table 3). However, a modest but significant quadratic trend was found between religiousness and the Divine subscale ($R^2 = .015$, $p < .01$). For people who were below the mean in religiousness, there was a positive correlation between religiousness and the Divine subscale, $r(562) = .16$, $p < .01$. However, for those above the mean in religiousness, there was a marginally significant negative correlation between religiousness and the Divine subscale, $r(579) = -.08$, $p = .06$. Using Bonferroni-corrected mean comparisons, those scoring average in religiousness (within 1 SD of the mean) reported higher Divine scores ($M = 1.6$, $SD = 0.8$) than those whose religiousness scores were low ($M = 1.4$, $SD = 0.7$, $p < .01$) or high ($M = 1.5$, $SD = 0.6$, $p < .05$).

Table 3

Study 2: Religious/Spiritual Struggle Scale (RSS) and Subscales: Correlations With Measures of Religiousness, R/S Struggle, and Mental Health

	RSS (full scale)	RSS Subscales: Specific types of struggle					
		Divine	Demonic	Interpersonal	Moral	Ultimate Meaning	Doubt
Religiousness							
Religiousness (index)	.14**	.04	.42**	.01	.33**	−.17**	−.02
Rlg. belief salience	.09*	.01	.36**	−.06*	.33**	−.19**	−.04
Rlg. participation	.16**	.07*	.42**	.08*	.29**	−.14**	.00
R/S Struggle Measures							
Anger/disappt. w/ God	.49**	.59**	.25**	.40**	.16**	.42**	.38**
Attribute struggle to God	.26**	.31**	.08	.17**	.01	.23**	.25**
Religious fear & guilt	.55**	.46**	.35**	.37**	.43**	.40**	.43**
Instability (SAI)	.60**	.58**	.38**	.43**	.37**	.43**	.46**
Attribute struggle to devil/evil spirits	.16**	.08	.54**	.03	.36**	−.10+	−.06
Attribute struggle to other person/group	.16**	.06	−.06	.30**	.07	.06	.17**
Expect negative social responses	.39**	.32**	.23**	.35**	.22**	.29**	.32**
Attribute struggle to self	.05	−.02	.10+	−.10*	.25**	.01	−.03
Search for life meaning	.23**	.16**	.08*	.12**	.15**	.27**	.23**
Religious doubt	.28**	.24**	−.07*	.35**	−.03	.38**	.37**
Doubt re: God's existence	.19**	.18**	−.11**	.18**	−.05+	.34**	.32**
Mental Health Measures							
Depressive symptoms	.42**	.38**	.23**	.29**	.22**	.44**	.26**
Generalized anxiety	.40**	.35**	.22**	.30**	.22**	.38**	.27**
State anger	.34**	.31**	.17**	.31**	.15**	.32**	.22**
Loneliness	.35**	.26**	.15**	.30**	.18**	.38**	.26**
Life satisfaction	−.21**	−.24**	−.07*	−.14**	−.04	−.32**	−.11**
Presence of life meaning	−.22**	−.20**	.08*	−.18**	.01	−.45**	−.23**

+ $p < .10$. * $p < .05$. ** $p < .01$.

Links with other measures of r/s struggle. Next we evaluated the convergent and discriminant validity of the RSS subscales in relation to other indicators of r/s struggle. We examined bivariate correlations first (see Table 3). As expected, the RSS and its subscales correlated positively with most r/s struggle measures. We then did simultaneous regressions (see Table 4) predicting each r/s struggle indicator from the six RSS subscales entered together (controlling for religiousness). Our aim was to evaluate whether each of the RSS subscales would predict unique variance (beyond the roles of religiousness and the other RSS subscales) in the indicators most conceptually relevant to them. There were no issues with multicollinearity (i.e., no VIFs greater than 10); the highest VIF was 2.2. We discuss each subscale in turn.

Divine subscale. As Table 4 shows, the RSS Divine subscale consistently predicted unique variance in all other measures of divine struggle: anger/disappointment, attributing a specific struggle to God, religious fear and guilt, and instability. The Divine subscale also predicted slightly greater expectation of negative social responses in response to r/s struggle. This finding fits with other recent data (Exline & Grubbs, 2011) suggesting that when people admitted to being angry at God, about half received stigmatizing responses from friends and family. Notably, the Divine subscale did not predict unique variance in doubts about God's existence, despite positive correlations (see Table 3). These findings echo those of Study 1a, in which a proposed RSS item on questioning God's existence loaded on a different factor from those emphasizing more emotionally focused struggles with God.

Demonic subscale. As expected, the Demonic subscale was the only one that predicted demonic attributions for a specific

struggle (see Table 4). Demonic struggle also predicted small amounts of unique variance in religious fear and guilt and instability, suggesting that people who see the devil as more active in their lives are more likely to fear God's disapproval.

Interpersonal subscale. As predicted, the Interpersonal subscale predicted unique variance in the two interpersonally focused measures (see Table 4): interpersonal attributions for a specific struggle and expectation of negative social responses in response to disclosure of r/s struggle. We also expected the Interpersonal subscale to emerge as a distinct predictor of anger toward God, because three of the five interpersonal items tap into feelings of anger or offense. This prediction was supported. In addition, we expected the Interpersonal subscale to predict unique variance in the religious doubt measure (Altemeyer & Hunsberger, 1997), which assesses several interpersonal concerns about religion (e.g., hypocrisy or unhappiness of religious people). This hypothesis was supported. The Interpersonal subscale also predicted lower levels of attribution to the self for a specific r/s struggle. Although not hypothesized, this finding fits with the idea that interpersonal resentments or conflicts around religion would be associated with less self-blame.

Moral subscale. We expected that the self-focused Moral subscale would predict a greater tendency to attribute a specific r/s struggle to the self. This hypothesis was supported (see Table 4). Moral struggle also predicted slightly less anger toward God and less attribution of responsibility to God for a specific r/s struggle. These connections make sense if people are blaming themselves rather than externalizing blame to God. The other two indicators of divine struggle (religious fear and guilt, instability) focus largely

Table 4
Study 2: Simultaneous Regressions Predicting Indicators of R/S Struggle and Mental Health From RSS Struggle Subscales and Religiousness

	R^2	Divine βs	Demonic βs	Interpers. βs	Moral βs	Ultimate Meaning βs	Doubt βs	Rlg. index[1] βs
R/S Struggle Measures								
Anger/disappointment with God	.37**	.51**	.00	.11**	−.08*	.06	.01	−.06*
Attribute struggle to God	.13**	.24**	−.03	.00	−.11*	.07	.15*	.09
Religious fear & guilt	.32**	.22**	.10**	.00	.25**	.04	.13**	−.05
Instability	.39**	.38**	.11**	.11**	.04	.12**	.01	−.03
Attribute struggle to devil/evil spirits	.35**	−.03	.51**	−.04	−.02	−.10+	.05	.18**
Attribute struggle to other person/group	.13**	−.05	−.10+	.34**	.08	−.10	.04	−.10+
Expect negative social responses	.16**	.09*	.06+	.19**	.04	.07+	.08*	−.03
Attribute struggle to self	.10**	−.05	.00	−.14*	.26**	.08	−.04	.09
Search for life meaning	.08**	−.04	.00	−.05	.04	.23**	.12**	−.01
Religious doubt	.42**	.00	−.04	.22**	−.09**	.12**	.22**	−.42**
Doubt re: God's existence	.31**	−.01	−.04	.01	−.09*	.17**	.28**	−.36**
Mental Health Measures								
Depressive symptoms	.23**	.17**	.08*	.06+	.07*	.31**	−.11**	−.09**
Generalized anxiety	.18**	.13**	.07*	.09**	.06+	.23**	−.04	−.07*
State anger	.16**	.15**	.07*	.17**	.05	.14**	−.09*	−.16**
Life satisfaction	.16**	−.15**	−.07+	.00	.00	−.26**	.15**	.22**
Loneliness	.17**	−.01	.01	.17**	.04	.29**	−.02	−.04
Presence of life meaning	.36**	.00	.02	−.01	.00	−.38**	.00	.39**

[1] The religiousness index was formed by standardizing and averaging scores on religious belief salience and religious participation.
+ $p < .10$.   * $p < .05$.   ** $p < .01$.

on concern about one's own misdeeds and perceptions of God's disapproval toward the self. As such, we expected that the Moral subscale would explain unique variance of both indicators, and this prediction was supported. Unexpectedly, the Moral subscale also predicted slightly less doubt—both religious doubt and doubt about God's existence. This finding makes sense considering that moral struggles appear to characterize the devoutly religious, as shown in the moderate correlation between the Moral subscale and the religiosity index (see Table 3). Devout individuals, rather than doubting their belief systems, are engaged with the faith and trying to follow its prescriptions.

Ultimate Meaning subscale. Our main prediction about the Ultimate Meaning subscale was that it would predict more effort in searching for life meaning. We also reasoned that a sense of ultimate meaning would offer some protection against doubt. We thus expected that higher scores on Ultimate Meaning (i.e., more struggle about meaning) would predict more religious doubt and more doubt about whether God exists. These hypotheses were supported (see Table 4).

Doubt subscale. We expected the Doubt subscale to predict higher scores on both doubt indicators: religious doubt and doubt about whether God exists. This hypothesis was supported (see Table 4). We also expected that Doubt would be associated with a slightly greater sense of searching for life meaning, and this prediction was supported. Unexpectedly, Doubt also predicted slightly greater divine struggle on three of the four measures. This may, in part, reflect the strong correlation between the Doubt and Divine subscales ($r = .58$), suggesting that people who are having serious doubts about their beliefs are also likely to feel alienated from God. The Doubt subscale also predicted expectations of slightly more negative interpersonal responses to r/s struggle. This finding fits with the idea that many people have doubts about

religion because of negative experiences with religious people (Altemeyer & Hunsberger, 1997).

Links with mental health measures. As Table 3 shows, all of the RSS subscales were associated with more emotional distress, as expected. Simultaneous regressions (see Table 4) showed that as a group, the subscales predicted moderate amounts of variance in the mental health criteria (R^2 of .16 to .36). The highest VIF was 2.0; thus multicollinearity was not an issue. Depression, anxiety, anger, and low life satisfaction showed similar profiles in their relationships to the struggle subscales: In each case, the Ultimate Meaning and Divine subscales predicted more distress. The Demonic, Interpersonal, and Moral subscales also predicted slightly greater distress on several indicators. As anticipated, the Interpersonal and Ultimate Meaning subscales were significant predictors of loneliness, whereas the Ultimate Meaning subscale predominated in predicting a lack of perceived meaning in life.

The general pattern was that each RSS subscale was useful in predicting some facet of emotional distress. However, there was one unanticipated and provocative finding: Although Doubt was correlated with greater distress, when considered alongside the other subscales in regression analyses, Doubt actually predicted slightly *less* depression and anger and slightly *more* life satisfaction. Supplemental analyses clarified that positive associations between the Doubt subscale and mental health were suppressed by Doubt's high correlations with the Ultimate Meaning, Divine, and (for anger and depression only) Interpersonal subscales. When these subscales were all included in regression equations, the association between Doubt and mental health shifted from negative to slightly positive. Although awaiting replication, these findings suggest that religious doubts and questioning might be part of a healthy process in some cases, as suggested by studies on quest approaches to religion (e.g., Batson & Schoenrade, 1991).

Summary. Study 2 provided a CFA to evaluate a six-factor solution for the 26-item RSS, suggesting a very good fit. The study also provided preliminary data supporting the validity of the RSS and its subscales. Overall, correlations and regressions showed that the RSS correlated with other indicators of mental and physical health in expected ways based on prior research.

Demographic Differences and Correlates on the RSS and Its Subscales

We conducted analyses in the samples from Study 1b and Study 2 to explore demographic differences and correlates. In analyses that involved multigroup comparisons, we used Bonferroni corrections where appropriate and omitted groups with fewer than 10 participants.

Gender and age. The Study 1b dataset showed no significant differences in RSS or subscale scores based on gender or age. In Study 2, two subscales showed small gender differences: Men showed higher Interpersonal scores ($M = 1.9$, $SD = 0.9$) than women ($M = 1.8$, $SD = 0.8$), $t(1137) = 2.25$, $p < .05$. Men also showed more struggle on the Ultimate Meaning subscale ($M = 2.1$, $SD = 1.0$) than women ($M = 1.9$, $SD = 1.0$), $t(1137) = 2.75$, $p < .01$.

Sexual orientation. Sexual orientation was assessed in Study 2 only. As Table 5 shows, there were clear and consistent differences in struggles based on sexual orientation. Relative to those who self-identified as heterosexual, those identifying as homosexual reported higher RSS scores. Homosexual participants had higher scores than heterosexual participants on the Divine, Interpersonal, Ultimate Meaning, and Doubt subscales but not on the Demonic or Moral subscales. The lack of difference on the Moral subscale may reflect the fact that the Study 2 undergraduates, as a group, showed higher scores on the Moral subscale than any other subscale. Scores of bisexual participants did not differ significantly from the other two groups.

Relationship status. Study 1b revealed no differences in struggles based on relationship status. In Study 2, participants showed consistent RSS differences based on whether they were in a committed relationship (see Table 5). Compared with those in committed relationships (38%), those who were not (62%) had higher scores on the full RSS and on all subscales except one (Doubt).

Race/ethnicity. Few consistent differences were found based on race/ethnicity. Study 1b revealed no significant differences. In Study 2, African American/black participants had higher RSS scores ($M = 2.1$, $SD = 1.8$) than those identifying as white/Caucasian/European American ($M = 1.8$, $SD = 0.6$), Bonferroni-corrected $p < .05$. However, the only RSS subscale showing significant group differences was the Demonic subscale, on which the white/Caucasian/European American group showed lower scores ($M = 1.8$, $SD = 0.6$) than any of the other groups (African American/black: $M = 2.3$, $SD = 1.1$; Latino/Hispanic: $M = 2.1$, $SD = 1.1$; Asian/Pacific Islander: $M = 2.1$, $SD = 1.2$), all Bonferroni-corrected ps $< .05$.

Education and income. Study 1b assessed education and income levels. Spearman correlations showed that greater education was associated with slightly lower RSS scores (Spearman's rho [ρ] $= -.11$, $p < .01$), including lower scores on Divine ($ρ = -.13$, $p < .01$), Demonic ($ρ = -.09$, $p < .01$), and Ultimate Meaning struggles ($ρ = -.10$, $p = .01$). Greater income also showed small negative correlations with RSS scores (Spearman's $ρ = -.11$, $p = .01$), including lower scores on Divine ($ρ = -.12$, $p < .01$) and Demonic ($ρ = -.16$, $p < .01$), and marginally lower scores on Doubt ($ρ = -.08$, $p = .09$). (These associations remained significant using partial correlations in which religiousness was controlled.)

Religious affiliation. For simplicity, and also to provide more power for group comparisons, we created four religious affiliation groups for Study 1: Christian, Jewish, spiritual but not religious, and atheist/agnostic/none. Most participants (93%) fit into one of

Table 5

Studies 1b & 2: Demographic and Religious Differences in Religious/Spiritual Struggle[1]

	N	Total struggle (average of 26 items)	Divine	Demonic	Interpersonal	Moral	Ultimate Meaning	Doubt
Study 1b								
Religious affiliation								
Christian	256	2.0 (0.8)[a]	1.9 (1.1)[c]	1.9 (1.2)[e]	1.8 (0.9)[g]	2.1 (1.1)[h]	2.2 (1.2)[j]	2.0 (1.0)[k]
Jewish	15	1.5 (0.7)[ab]	1.3 (0.7)[cd]	1.1 (0.4)[f]	1.8 (1.0)[g]	1.7 (1.0)[hi]	1.8 (1.0)[j]	1.5 (1.1)[kl]
Spiritual, not religious	46	1.5 (0.4)[b]	1.1 (0.4)[d]	1.0 (0.3)[f]	2.2 (1.1)[g]	1.4 (0.6)[i]	2.0 (1.1)[j]	1.3 (0.6)[l]
Atheist/agnostic/none	130	1.7 (0.6)[b]	1.5 (1.0)[d]	1.1 (0.5)[f]	1.8 (1.0)[g]	1.6 (0.8)[i]	2.4 (1.2)[j]	1.7 (1.1)[kl]
Study 2								
Sexual orientation								
Heterosexual	1068	1.9 (0.7)[a]	1.5 (0.8)[c]	1.7 (1.0)[e]	1.8 (0.8)[f]	2.5 (1.1)[i]	1.9 (1.0)[j]	1.8 (1.0)[l]
Homosexual	23	2.3 (0.9)[b]	2.1 (1.3)[d]	1.6 (1.2)[e]	2.8 (0.9)[g]	2.4 (1.2)[i]	2.7 (1.4)[k]	2.5 (1.3)[m]
Bisexual	25	2.0 (0.9)[ab]	1.7 (1.0)[cd]	1.6 (0.9)[e]	2.2 (1.1)[gh]	2.5 (1.1)[i]	2.2 (1.2)[jk]	2.0 (1.3)[lm]
In committed relationship?								
No	688	1.9 (0.7)[a]	1.6 (0.8)[c]	1.8 (1.0)[e]	1.9 (0.8)[g]	2.5 (1.1)[i]	2.0 (1.0)[k]	1.9 (1.0)[m]
Yes	420	1.8 (0.7)[b]	1.5 (0.7)[d]	1.6 (0.9)[f]	1.7 (0.8)[h]	2.4 (1.1)[j]	1.8 (1.0)[l]	1.8 (1.0)[m]
Religious affiliation								
Christian	885	1.9 (0.7)[a]	1.6 (0.8)[c]	1.8 (1.0)[e]	1.8 (0.8)[g]	2.6 (1.1)[i]	1.9 (1.0)[k]	1.9 (0.9)[m]
Jewish	12	1.7 (1.0)[ab]	1.4 (1.1)[cd]	1.5 (1.2)[ef]	1.7 (0.8)[gh]	2.1 (1.2)[ij]	1.7 (1.1)[kl]	1.8 (1.2)[m]
Atheist/agnostic/none	173	1.7 (0.7)[b]	1.3 (0.8)[d]	1.2 (0.6)[f]	2.1 (1.0)[h]	1.8 (0.9)[j]	2.2 (1.2)[l]	1.8 (1.1)[m]

[1] In each column of each section, means with shared subscripts do not differ at $p < .05$ (using Bonferroni correction when appropriate).

these categories. As Table 5 shows, Christians showed higher RSS scores than those who identified as spiritual but not religious or as atheist/agnostic/none. This same pattern was found for the Divine, Demonic, and Moral subscales. Christians also had higher Demonic scores than Jewish participants. In addition, Christians showed higher Doubt scores than those who identified as spiritual but not religious. There were no significant group differences on the Interpersonal or Ultimate Meaning subscales.

In Study 2 (see Table 5), Christians showed higher RSS scores than those who listed their affiliation as atheist/agnostic/none. As in Study 1b, this same pattern was found for the Divine, Demonic, and Moral subscales. However, Christians reported lower scores on the Interpersonal and Ultimate Meaning subscales than those who identified as atheist/agnostic/nonaffiliated.

Correlations with validity indicators across demographic groups. Although we do not report details here for the sake of brevity, the overall patterns of correlations between RSS scores and the various validity indicators were similar across the major demographic groups represented (gender, race/ethnicity as white/Caucasian/European American vs. other groups, Christian and non-Christian). Across all of these groups, higher RSS scores were associated with slightly higher religiosity, more emotional distress, and higher scores on other measures of r/s struggle.

Summary. Few consistent differences were found on the RSS in terms of age, gender, or race/ethnicity. Lower education and income were associated with slightly more struggle (Study 1). In Study 2, participants in committed relationships reported less struggle than those not in committed relationships, and homosexual participants reported more struggle than heterosexual participants. Christians in both samples showed higher RSS scores and higher scores on the Divine, Demonic, and Moral subscales than those without a religious affiliation; however, Study 2 Christians also reported lower scores on Interpersonal and Ultimate Meaning than atheist/agnostic/nonaffiliated participants. Correlations between RSS scores and validity indicators were similar across demographic groups based on gender, ethnicity, and religion.

General Discussion

Studies have shown that religious/spiritual (r/s) struggles are common (e.g., Bryant & Astin, 2008; Johnson & Hayes, 2003; McConnell et al., 2006) and are linked with emotional distress (see Exline, 2013, for a review). A need exists for a measure that can provide more comprehensive, reliable, concise assessment of multiple domains of r/s struggle: supernatural, interpersonal, and intrapersonal. As described in this article, two studies provided preliminary evidence for reliability and validity of the 26-item Religious and Spiritual Struggle (RSS) Scale, which has six subscales: Divine, Demonic, Interpersonal, Moral, Ultimate Meaning, and Doubt. The project used two general adult samples (Study 1) and an undergraduate sample (Study 2).

A confirmatory factor analysis suggested a very good fit for the proposed six-factor model. The full RSS and its six subscales showed good internal consistency and evidence of convergent, discriminant, and predictive validity. On the whole, r/s struggles were quite common. In both the general adult and undergraduate samples, supernatural struggles (divine and demonic) were endorsed less than the other struggles. In the general adult sample (Study 1b), struggle around ultimate meaning was endorsed the

most. Among undergraduates (Study 2), moral struggle was most commonly endorsed, followed by struggle around ultimate meaning.

Associations With Religiousness and Religious Affiliation

As predicted, Study 2 showed that religiousness correlated positively with the Demonic and Moral subscales but negatively with the Ultimate Meaning subscale. The positive links between religiousness, demonic struggles, and moral struggles suggest that some struggles may be common facets of religious life. The Divine and Doubt subscales showed curvilinear associations with religiousness, in which moderate religiousness was associated with the most struggle. Based on the many links between religiousness and RSS subscales, we controlled religiousness in regressions predicting other measures of r/s struggle and mental health.

It is worth noting that when speaking of religious individuals in these U.S. samples, we are mainly referring to Christians—the most represented group. An important next step will be to examine the reliability, validity, and overall endorsement of RSS subscales in other religious groups. For example, in a tradition that does not emphasize belief in demons, we would expect very low scores on the Demonic subscale and no link between Demonic scores and religiousness.

Convergent and Discriminant Validity: Associations with Other R/S Struggle Measures. As anticipated, the RSS subscales showed moderate intercorrelations and significant correlations with other indicators of r/s struggle (see Table 3), consistent with the idea that they are all assessing negative emotion and conflicts associated with r/s. More precise information for validity testing came from regressions that included all of the RSS subscales (plus religiousness).

Taken together, the regression analyses predicting other r/s struggles (see Table 4) provided good evidence for the convergent and discriminant validity of the RSS and its subscales. The RSS subscales predicted unique variance in constructs closely associated with them (convergent validity) and, in most cases, did not predict unique variance in irrelevant struggle constructs (discriminant validity). For example, the RSS Divine subscale predicted unique variance in all four measures designed to assess divine struggle, and the only other struggle measure for which it predicted a small amount of unique variance was the expectation of stigmatizing responses to struggle—a finding consistent with prior literature showing that many people see anger toward God as morally wrong (Exline et al., 2012; Exline & Grubbs, 2011). The other five subscales also showed patterns that fit conceptually with their intended purposes.

Predictive Validity: Associations With Indicators of Mental Health

Consistent with prior research and the intended purpose of the scale, the RSS subscales correlated significantly with various measures of mental health (see Table 3). Also, when considered simultaneously in regressions (see Table 4), each subscale predicted unique variance in one or more mental health measures, although some associations were small. The Ultimate Meaning subscale stood out consistently as a predictor of unique variance in

mental health, consistent with other work showing the psychological importance of a sense of life meaning (e.g., Steger et al., 2006). Consistent with other studies on divine struggle (see Exline, 2013, for a review), the Divine subscale also predicted unique variance in four of the six mental health measures, including three clearly tied to emotion: depression, anxiety, and anger. The Demonic, Moral, and Interpersonal subscales also predicted modest amounts of unique variance in several mental health measures. An unexpected finding was that when considered alongside the other RSS subscales, the Doubt subscale actually predicted slightly better mental health on three measures (depression, anger, life satisfaction). Although not anticipated, this finding fits with the idea that doubt about religious beliefs may be part of a normal developmental process (see Tamminen, 1994).

Demographic Differences

We also conducted exploratory analyses to examine demographic differences on the RSS. There were no strong, consistent differences based on gender, age, or ethnicity. However, Study 1b revealed small but significant negative correlations between r/s struggles with education and income level. These correlations remained significant when religiousness was controlled.

The clearest demographic differences came from the relationship-oriented variables in Study 2. Specifically, undergraduates in committed relationships reported less struggle than those not in committed relationships. Another consistent set of findings centered on sexual orientation: Those who identified as homosexual reported more struggle than heterosexual participants (see Fontenot, 2013, for a discussion) overall and on four of the six subscales. An interesting exception to this pattern was that moral struggles, which were the most highly endorsed struggles among college students, did not differ based on sexual orientation. Although these findings are cross-sectional and do not allow causal inferences, they do suggest connections between relational factors and the propensity for r/s struggle.

Limitations and Future Directions

Our intent was to develop a self-report measure. However, it is important to note that self-report measures have limitations. Response biases cannot be ruled out, and participants may be reluctant to report certain struggles because of concern about stigma (e.g., Exline & Grubbs, 2011). These data were also cross-sectional. In subsequent work it will be important to examine factors that predict development of these struggles over time (e.g., situational, personality, attachment style; see Ano & Pargament, 2012; Bryant & Astin, 2008), as well as how struggles predict subsequent outcomes (e.g., mental health; physical health; coping responses). Other limitations focus on sampling. First, for these initial studies focused on measure development, we used broad-based samples rather than clinical samples. In future work, clinical samples could prove helpful for examining nuanced relationships between types of r/s struggle and types of psychopathology. Studies with clinical samples will also be important in attempts to identify cutoffs indicating significant areas of struggle. Second, study titles referred to religion or spirituality, creating some potential for self-selection bias. Third, participants were adults. Future work should evaluate the appropriateness of the RSS for

children and adolescents. Fourth, both studies used samples from the U. S., and most participants identified as Christian. In the future it will be important to examine the validity of the RSS in other cultures and religious groups. Several RSS subscales (Moral; Ultimate Meaning; Doubt; some Interpersonal items) may apply to people from a wide variety of belief systems, including those who are nonreligious. However, some items may need to be modified for use in other groups. For example, it may be necessary to modify the divine items for polytheistic faiths (e.g., referring to "gods" rather than "God") or for individuals who do not have a concept of a personal God. Similarly, those who are nonreligious or who do not believe in supernatural forces are likely to see some items as inapplicable, underscoring the need to include a "does not apply" option or to list it as part of the lowest response category ("not at all/does not apply.")

Conclusion

In the growing literature on religious and spiritual struggle, a clear need has arisen for an assessment tool that can reliably assess multiple domains of struggle (supernatural, intrapersonal, and interpersonal) in a relatively brief format. Our aim was to develop such a measure for use in U.S. samples. These studies provide preliminary validation for the Religious and Spiritual Struggles (RSS) Scale, a 26-item scale with six subscales: Divine, Demonic, Interpersonal, Moral, Doubt, and Ultimate Meaning. Granted, this work represents only a modest step toward assessing r/s struggles, which are complex and multifaceted. However, the RSS may help researchers and clinicians to assess r/s struggle in a focused yet multidimensional manner that will help to advance research in this rapidly growing area.

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