### When suffering contradicts belief: measuring theodical struggling

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### Abstract

Global meaning systems help people make sense of their experiences, but suffering can violate global meaning and create distress. One type of potential violation is conflict between one's experience of suffering and one's deeply-held beliefs about God as loving, powerful, and just. The problem of theodicy—why an all-powerful and all-loving God would allow suffering—has long been an important theological and philosophical concern, but little is known about how theodicy plays out psychologically for religious individuals facing serious life difficulties. To address this issue within a specific religious tradition, Christianity, we drew upon philosophy, Christian theology, and psychology to develop the construct of theodical struggling. Through theological and philosophical input, we generated a 28-item pool and conducted 10 cognitive interviews with a diverse sample of Christian adults. In three consecutive online studies of Christian adult samples, we reduced the scale to 11 items through PCA, found a strong one-factor solution using EFA, and found support for the one-factor solution along with preliminary reliability and validity. This newly-developed Theodical Struggling Scale represents an important advance in understanding individuals' experiences of ruptures in their beliefs regarding God's goodness and paves the way for future research on this topic.

Keywords Measurement · Theodicy · Suffering · Spiritual struggling

According to the meaning making model, people possess global meaning systems comprising complex sets of global beliefs and goals. For example, people possess beliefs about the world, such as the extent to which it is fair, just, benevolent, random, predictable, and controllable (Clifton et al.,

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2019; Janoff-Bulman, 1989). People also possess beliefs about themselves and their interactions with the world (e.g., identity, self-worth, controllability of their lives) (Park, 2010). Individuals' global beliefs help them to understand and make sense of their experiences and navigate through the world (Park, 2016). While every individual has a unique constellation of beliefs, these beliefs are typically fairly benign (Janoff-Bulman, 1989; Park, 2013).

Individuals generally perceive their global beliefs as congruent with their experience, but experiences that they appraise as violating their beliefs can result in distress (Park, 2010). For example, experiences of traumatic events such as sexual assault or homicide of a loved one can badly shake individuals' beliefs in the safety and benevolence of the world and other people (Dworkin et al., 2019; Park, 2017). Similarly, terrorism or destructive natural disasters can violate beliefs in the controllability, fairness and justice of the world (Park & Blake, 2020) as can diagnoses of serious illness (Krok et al., 2021). These violations of one's global beliefs have been associated with high levels of distress in studies of military veterans (Owens et al., 2009), cancer survivors



(Park et al., 2008), and people dealing with COVID-19 stressors (Milman et al., 2020).

One specific type of belief violation that has received extensive attention in philosophy and theology is caused by negative events that seem to conflict with beliefs in God's loving and omnipotent nature. However, this topic has been the direct focus of only a small amount of empirical psychological research. From the time of Epicurus (341 - 270 BC), the existence of evil and suffering has been a major source of skeptical arguments against the existence of an all-powerful, all-good God (Long, 2011). Accordingly, theodicies—ways of reconciling views of a loving and powerful God with evil and suffering in the world (Furnham & Brown, 1992)—have long been a topic of interest in theology and philosophy (Alston, 1991; Hick, 1966; Plantinga, 1974; Stump, 2010).

The existence of evil provides a particularly serious challenge to theistic versions of religion such as Judaism, Islam, and Christianity. However, non-theistic religions such as Hinduism, Buddhism, and Greco-Roman Paganism do not advocate belief in a single all good, all powerful deity. Therefore, the existence of evil and suffering is generally not in conflict with central beliefs of such non-theistic religions since they do not advocate the existence of a theistic deity. The experience of evil and suffering do not cause the same sorts of violation of global systems of meaning because these experiences are to be expected in a world without such perfect metaphysical origins. Furthermore, these negative experiences are generally explained by principles within these religions such as bad karma (Reicherbach, 1988) or the potential conflict between feuding deities (Davies, 2011). Suffering may still be an important practical problem to be faced, coped with, and overcome through strategies such as those encoded in Buddhism's eight-fold path. But in the context of non-theistic religions, experiences of evil and suffering generally do not entail a direct threat to a central belief within the adherent's global system of meaning.

In theistic philosophy, responses to the problem of evil have generally come in two forms. First, formal theodicy suggesting that God has a good, loving, and morally sufficient reason for allowing evil has existed since Classical Times (Augustine, 1960). Allowing evil may ultimately benefit humans by being necessary for valuable types of free will, a superior type of moral development, a more freelyembraced and un-coerced relationship with God, a broader range of qualitatively superior types of life meaning, some other good, or some combination of these goods (Hick, 1966; Silverman et al., 2023; Stump, 2010). Second, skeptical theism, arguing that humans are not properly situation to know how a good God would act in both the construction of the world generally and in particular human situations specifically. While theodicies focus on claims within ethics and value theory, skeptical theism focuses on claims within epistemology concerning the nature of knowledge and what sorts of knowledge humans actual possess about how a good God might act. (Alston, 1991; Wykstra, 1996)

Theodicy became an even more salient topic following the Holocaust, when many Jewish scholars and religious adherents struggled to reconcile this tragic experience with their understanding of God (Friedlander, 1999). Theodicy attempts to establish the plausible coexistence of three seemingly contrary elements: (a) the existence of evil such as suffering as a potential threat to or reason for doubting the existence or character of God; (b) an affirmation of the goodness and/or love of God; and (c) an affirmation of the power of God including the ability of God to control all circumstances (Stump, 2010). While the problem of theodicy has emerged as a pressing theological and philosophical concern, little is known about how these beliefs play out psychologically for individuals who face serious life difficulties.

Although some theologians have questioned the value or appropriateness of attempting a theodicy (e.g., Swinton, 2007), many individuals struggle psychologically with this issue (Bradshaw & Fitchett, 2003). Furthermore, religious explanation of God's reasons for allowing suffering is one of the oldest philosophical/theological conversations, going as far back as the Hebrew Bible's book of Job. Similarly, St. Augustine gave substantial attention to the importance of theodicy in the *Confessions* and elsewhere, viewing the problem of evil as the most serious intellectual challenge to theistic belief. (Augustine, 1960)

In the past few decades, psychologists have begun to delineate individuals' distinct ways of appraising suffering (Furnham & Brown, 1992; Hale-Smith et al., 2012). One recent effort to this end identified eight different theodicies (e.g., God has providential control over suffering) and created a scale (the Views of Suffering Scale; VOSS) to assess them. Subsequent research using the VOSS demonstrated that more benevolent theodicies (e.g., that God has a deeper purpose in the suffering) were linked to higher psychological well-being in samples of college students (Wilt et al., 2016, study 1), community residents in the US (Wilt et al., 2016, study 2), and Veterans Administration chaplains (Currier et al., 2017).

This growing research on theodicies suggests their importance in myriad aspects of health and well-being. The question then arises whether people encountering experiences of significant suffering might appraise those experiences as discrepant with or violating their deeplyheld and influential theodicies (McMartin & Hall, 2021). For example, a traumatic assault or death of a loved one might be experienced as incompatible with believing that God is loving, protective and all-powerful (Hall & Johnson, 2001). While the assumption seems to be that suffering frequently triggers theodical discrepancies, actual prevalence of theodical struggle is unknown, with some qualitative studies suggesting they occur relatively infrequently (Hall et al., 2019). One study of people coping with the aftermath of a disastrous flood found that benevolent theodicies protected survivors from posttraumatic stress by mitigating the effects of violated global beliefs, although that study did not specifically assess theodicy violations (McElroy-Heintzel et al., 2018).

To advance research on this question, we aimed to create an assessment tool to explicitly measure the extent to which people experience their suffering as in conflict with their beliefs about God as loving, powerful and protective. Consistent with recent psychological work on suffering, we defined suffering as "the undesired experience, of considerable intensity or duration, of a negative physical or affective state" (VanderWeele, 2019, p. 58).

In both psychology and philosophy, there has long been a distinction between mere pain and actual suffering. Pain is the bare experience of a kind of physical or affective state that is typically viewed negatively. Yet suffering requires a kind of interaction with our attitude towards that state, that it is undesired. Of course, it is possible to have strategies to avoid suffering that focus on changing one's desires, such that pain is no longer in conflict with one's desires. This strategy was essential to ancient Stoicism (Inwood, 2018). However, such strategies have largely fallen out of favor. Our definition of suffering has the benefit of capturing both the importance of one's physical and affective state as well as one's volitional attitudes towards that state.

We focused not just on the beliefs themselves, but on the experience of discrepancy between a belief and an experience. We labeled this experience "struggling" to situate our scale in the growing psychological literature on religious and spiritual struggles (e.g., Pargament & Exline 2023), as theodical struggling is a specific type of religious struggle. Exline (2013) defined religious and spiritual struggle as "a form of distress or conflict in the religious or spiritual realm" (p. 460). We focused on Christian beliefs because of the emphasis that Christianity puts on the immanence of divine goodness and love toward the individual believer makes it particularly vulnerable to the problem of evil (Augustine, 1960). According to Christian theology, God is not supposed to be merely good in a generic manner, but a God of love with personal concern for the individual, a loving Father to His children. Accordingly, Thomas Aquinas cited the existence of evil as one of only two plausible arguments he considered against God's existence (Aquinas, 1911–1925).

We drew upon philosophy, Christian theology, and psychology to create a Christian-specific framework of theodicies emphasizing beliefs in God's existence, loving nature, and omnipotence, and trust in God's mystery (Hick, 1966; Plantinga, 1974; Stump, 2010). We used this framework to create a systematic measure and conducted a series of four studies to develop and refine it.

### The present studies

We present the results of four consecutive studies documenting the development of the Theodical Struggling Scale. In the first study, we report on item development and test the items for clarity across different Christian groups using cognitive interviewing. In the second study, we report on the reduction of survey items. The third study presents the results of exploratory factor analysis of these items. In the fourth study, we address factor stability and construct validity and also test the usefulness of the instrument in the incremental prediction of well-being.

## Study one: Item development and cognitive interviewing

The first study aimed to develop items broadly representing theodical struggles and evaluate initial content validity of those items via cognitive interviews. Items were developed to encompass the four aspects of theodical struggling noted above: struggling with simultaneous belief in God's existence, benevolence, omnipotence, as well as trust in divine mystery. The items were reviewed from a Christian perspective by three reviewers with expertise in related areas. All held terminal degrees in philosophy, psychology, or theology. The experts examined the items for face validity, construct fidelity, and clarity of wording; provided open-ended feedback about the scale items; and suggested additional items. This process resulted in 28 items.

These 28 items were then subjected to cognitive interviewing. They were reviewed for clarity by focusing on the cognitive processes that are engaged in responding to items: comprehension, recall, judgment, and response. An additional purpose was to ascertain whether the range of interpretations associated with the evaluated items varied acceptably between diverse Christian groups, an objective known as semantic equivalence (Daouk-Oyry & McDowal, 2013). In order to achieve this goal, we drew from methods developed for cross-cultural cognitive interviewing (Willis, 2015).

### **Study 1 Method**

Cognitive interview sampling aims for diverse perspectives rather than representativeness. Because representation from diverse Christian traditions was desired, two participants from each of the following groups were recruited: conservative Protestant, mainline Protestant, Pentecostal, Catholic, and Orthodox. Our resulting sample of ten is within recommended guidelines (Peterson et al., 2017). Personal contacts and snowball sampling were used to obtain participants who were religiously-committed, self-reflective, and verbal, and who had faced a significant life challenge sometime in the recent past. We also attempted to achieve age, gender, and ethnic diversity. Online interviews, which also included items from other scales, lasted approximately 1½ hours, and participants were compensated with a \$50 gift card. We used a combination of think-aloud and verbal probe procedures with each item (Peterson et al., 2017), as is normative in cross-cultural cognitive interviewing (Willis, 2015). All interviews were audio-recorded. The resulting sample consisted of 4 men and 6 women ranging in age from 22 to 68 (M=35.7, SD=16.89). With respect to ethnicity, 6 were White/European American (non-Hispanic), 3 were Hispanic/ Latinx, and 1 was Asian-American.

### **Study 1 Analysis and discussion**

Two researchers reviewed the qualitative data gathered for all items and assessed each for difficulties in comprehension, recall, judgment, and response. They also evaluated any comprehension differences between religious groups and found no differences in comprehension between religious groups. Participants showed difficulties with one item ("I feel like my suffering makes no sense in light of my religious beliefs") in the areas of comprehension, judgment, and response selection; the item was deleted.

## Study 2: Item reduction and principal components analysis

The second study aimed to select items describing theodical struggling through principal components analysis (PCA).

### **Study 2 Method**

### Participants and procedure

After receiving IRB approval, a new sample of participants was recruited from Amazon's Mechanical Turk (MTurk) and compensated \$2.50. Eligible participants were aged 18 or older, resided in the United States, had at least a 95% MTurk approval rating, and had completed at least 500 successful tasks on MTurk. The project was advertised as an anonymous survey for Christians who are active in their faith and have encountered a serious stressful experience that has "caused substantial suffering" in the past 6 months. The sample included 540 cases. Data cleaning revealed that 13.3% of cases were duplicate or empty (n=72), 15.8% failed automated/"bot" checks (n=85), and 10.6% failed attention checks (n=57). After all invalid cases were

removed, 92.5% of the remaining 358 valid cases (66.3%) fully completed the Theodical Struggling items (n = 331).

Participants had a mean age of 37.6 years (SD = 10.9) and were 51.7% male (n = 171). Most participants were White (75.8%; n=251), while Black or African American (13.3%; n=251)n=44) and Asian or Asian American (5.4%; n=18) responses were less frequent. The remaining participants reported being American Indian or Alaska Native (1.8%; n=6) and Multiracial or other (3.6%; n=12). Slightly below 1/6th of participants were Hispanic or Latinx (15.1%; n = 50). Most participants were married or cohabitating (77.3%; n = 256), with far fewer single, divorced or separated, or widowed (18.1%, 4.2%, and 0.3%; ns = 60, 14, and 1, respectively). Median annual income was \$40,000 - \$59,999. Slightly more than half of participants reported being "Christian," with no indication of specific denomination, (51.4%; n=170), while fewer reported being Roman Catholic (10.3%; n = 34) or Baptist (8.8%; n=29). The remaining participants reported various other denominations, with the highest reports being for Christian Missionary Alliance (3.9%; n=13), Protestant (3.6%; n=12), and Lutheran (3.3%; n = 11).

### Measures

Demographic information was assessed with a self-developed questionnaire asking about participant age, gender, race, ethnicity, religious affiliation, marital status, education level, and income. The initial Theodical Struggling Scale was developed as a Likert scale. Each item asked the degree to which participants struggled to understand their stressful experience vis-a-vis God's plan or how God would let such suffering occur using a six-point Likert scale: 1 = not at all, 2 = a very small amount, 3 = a moderate amount, 4 = a large amount, 5 = a great deal, 6 = a very large amount.

### **Study 2 Results**

We reduced the number of items included by performing missingness analysis and principal components analyses (PCA). In examining initial content validity, items with the highest number of missing cases (compared to the median of missing cases) were examined and considered for exclusion within valid cases (n=358). Only one item contained four more missing cases than the median of two. Given the theoretical importance of this item and no apparent issues with item comprehension in Study 1 cognitive interviews, this item was retained.

To reduce the number of items representing theodical struggling, a series of PCA were conducted. Oblimin rotation (Delta=0) was utilized, allowing the discovery of correlated components. Scree plots were examined to determine the number of factors (eigenvalue  $\geq 1$ ). The first PCA included all items, which were removed if they displayed

factor loadings below 0.50 or cross-loaded on multiple factors above 0.50. Seven items were removed. From there, another PCA was conducted without the removed items, and the same exclusion criteria were followed until no further items were excluded. At that point, items and components therein were qualitatively examined for theoretical meaning and/or redundancy through discussion between study authors. If any items were chosen for addition or removal, another PCA was conducted on the revised item list. If no items met the exclusion criteria, that solution was retained; otherwise, the above exclusion process continued. In the first round of PCA, one component was extracted, so no rotation was conducted (initial variance explained: 77.2%). The final PCA solution contained one component with 11 items.

### **Study three: Factor analysis**

The third study aimed to identify factors underlying the selected items with exploratory factor analysis (EFA) and to provide a measure of internal consistency reliability.

### Study 3 Method

### Participants and procedure

The University of Connecticut IRB approved survey materials for the present research. The sample for Study 3 participants were recruited from Prolific. Eligibility for participation included being aged 18 or older and living in the U.S. The present research project was posted as an anonymous survey for Christians who had experienced a serious stressful experience that generated considerable suffering in the past 6 months. The measure of Theodical Struggling was a part of a larger project that also included items for other measure development. Participants responded to the Theodical Struggling Scale using a six-point Likert scale: 1 = not at all, 2 = a very small amount, 3 = a moderate amount, 4 = a large amount, 5 = a great deal, 6 = a very large amount.

We conducted checks to allow us to detect and delete responses that were inappropriate (e.g., bots). The first attention check was performed on participants' qualitative responses about their stressful experiences. If qualitative responses did not make sense (e.g., numbers, meaningless words) after two independent raters categorized them, the cases were deleted. As the second check, cases with duplicate, empty, and other types of invalid responses were removed.

Of the 383 participants who responded to the Theodical Struggling Scale, duplicate or empty cases (0.5%, n=2)and automated/"bot" cases (3.9%, n=15) were detected and removed. Of the remaining 366 cases, we analyzed data from the 357 participants (97.5% out of 383) who fully completed the Theodical Struggling Scale.

Participants' mean age was 34.4 years (SD = 8.99, Range = 18-77). Most of the sample was male (74.3%, n=256) and more than half was White (56.9%, n = 203). Other participants were Black (37.0%, n = 132), Native Hawaiian or Pacific Islander (2.0%, n=7), Bi/Multiracial group (1.1%, n=4), Asian or Asian American (0.8%, n=3), and Middle Eastern (0.3%, n=1). As for participants' ethnicity, 4.8% were Hispanic (n=17). Most participants were married or cohabitating (75.9%, n=271), followed by single (21.0%, n=75), divorced or separated (2.2%, n=8), and widowed (0.3%, n=1). Median household income was \$80,000 - \$99,999. More than twofifths of participants had a master's degree (43.1%, n = 154), while a third had a bachelor's degree (33.6%, n = 120). Less than one out of ten had a doctoral degree (5.6%, n=20), a high school diploma/ GED (5.3%, n=19), some college (4.8%, n=17), an associate degree (4.5%, n=16), or a professional degree such as a J.D. or M.D. (2.5%, n=9). Regarding Christian denomination, 40.9% were Roman Catholic (n = 146) and 16.8% were simply "Christian Church" (n=60). Other denominations included Baptist (8.1%, n = 29), Pentecostal (6.7%, n=24), Protestant (6.2%, n=22), and Non-denominational church (3.1%, n=11). An index of participants' stressful experiences that occurred in the past 6 months are listed in Supplemental Table 1. Most common were "other work issues" (17.9%, n=64), illness or injury of self (12.9%, n=46), and death of someone close (12.9%, n=46). Time since event, severity of event, and event chronicity are shown in Table 1.

### **Study 3 Results**

Considering the meaningful PCA solution in Study 2, EFA that applied principal axis factoring (PAF) was also performed to test if there would be any underlying factors by following the same item reduction process described above. Similar to the results of PCAs, the EFA indicated a one-factor solution. Since loadings for all items were greater than 0.50, the final Theodical Struggling Scale includes 11 items (See Table 2). Moreover, the EFA showed strong adequacy sampling (KMO=0.96) and item correlation ( $\chi^2$  [55]=3865.86, p < .001). The Cronbach's alpha for the scale was 0.96. The lowest item-total correlation (0.68) and intraclass correlation for a single measure (0.69) were also good. In Study 3, the average level of Theodical Struggling was 2.31 (SD=1.35, Range=1–6). The final questionnaire is found in Appendix 1.

# Study four: Confirmatory factor analysis, construct validity, and incremental validity analyses

The final study aimed to confirm the factor structure of the Theodical Struggling Scale and evaluate its construct validity. In addition, we evaluated the utility of this **Table 1** Event time, severity,and chronicity for Study 3 andStudy 4

	Study 3 (A	/=357)	Study 4 ( <i>N</i> =375)	
	n	M(SD)/%	n	M(SD)/%
How long ago did this occur?				
Less than a month ago	82	23.0	108	28.8
1 month ago	59	16.5	55	14.7
2 months ago	50	14.0	42	11.2
3 months ago	43	12.0	56	14.9
4 months ago	51	14.3	35	9.3
5 months ago	34	9.5	43	11.5
6 months ago	38	10.6	36	9.6
More than 6 months ago	0	0.0	0	0.0
How severely has this serious str ful experience impacted your l		3.53 (1.07)		4.04 (0.85)
1 = Not at all	11	3.1	0	0.0
2 = A small amount	51	14.3	12	3.2
3 = A moderate amount	103	28.9	93	24.8
4 = A large amount	115	32.2	139	37.1
5 = A very large amount	72	20.2	131	34.9
Is this experience chronic/ongoi	ng?			
No	198	55.5	133	35.5
Yes	159	44.5	242	64.5

Table 2 Items and factor loadings of the one-factor solution from Study 3 (EFA) and Study 4 (CFA)

	Facto loadi	
Items	EFA	CFA
Based on my understanding of God's goodness, my current suffering leads me to doubt God's goodness.	0.88	0.89
Based on my understanding of God's mighty power in the world, my current suffering leads me to question God's ability to help me.	0.86	0.84
Based on my understanding of God's mighty power in the world, my current suffering leads me to worry that God can't take care of me when I really need Him.	0.86	0.88
Based on my understanding of God's goodness, my current suffering leads me to worry that God won't take care of me when I really need Him.	0.86	0.87
Based on my understanding of God's goodness, my current suffering leads me to feel like God doesn't love me.	0.85	0.84
Based on my understanding of God's presence, my current suffering makes me question if God is really here for me.	0.85	0.85
Based on my understanding of God's mighty power in the world, my current suffering leads me to doubt God's ultimate ability to control things.	0.85	0.85
Based on my understanding of God's presence, my current suffering makes me question God's existence.	0.85	0.84
Based on my understanding of God's presence, my current experience makes me feel like my suffering makes no sense in light of my religious beliefs.	0.84	0.85
Based on my understanding of God's goodness, my current suffering leads me to question God's caring for me.	0.76	0.74
Based on my understanding of God's mighty power in the world, my current suffering leads me to wonder whether God can right all of the wrongs around the world.	0.68	0.67

newly-identified construct through a series of incremental validity analyses. With respect to convergent validity, we hypothesized that theodical struggling would correlate moderately strongly and positively with negative religious coping, specifically spiritual discontent, but negatively with actively surrendering one's suffering to God and intrinsic religiousness. We anticipated that theodical struggling would be moderately positively correlated with insecure attachment to God and protest behaviors. We also expected moderately strong positive relationships with rumination, especially its more negatively-toned brooding and depressive aspects. With respect to discriminant validity, we expected nonsignificant or small correlations with extrinsic religiousness. With respect to incremental validity, because negative aspects of religious coping have been shown to predict poorer well-being (see Koenig, 2012; Koenig et al., 2012), we hypothesized that theodical struggling would inversely predict aspects of distress typically measured in studies of major life stressors (i.e., PTSD, depression, anxiety) above and beyond spiritual discontent.

### **Study 4 Method**

### Participants and procedure

After receiving IRB approval, a new sample of participants was recruited through Prolific. The present research project was posted as an anonymous survey for Christians who had experienced a serious stressful experience that generated considerable suffering in the past 6 months. The Prolific data included checks for participant validity so no additional attention checks to identify automated responses (i.e., "bots") were included. However, as a further criterion to detect "bots", participants' descriptions of stressful experiences were reviewed by two independent raters. If their descriptions included numbers or meaningless words, the cases were considered "bots." We also investigated cases with duplicate or empty responses and removed them. No duplicate or empty cases or automated/ "bot" cases were found in the 382 participants who provided Theodical Struggling Scale data, and 98.2% completed the Theodical Struggling Scale (n=375). For test-retest validity, a subsample 100 of the participants were reassessed three weeks later (n=89).

The average age of the final sample was 35.62 years (SD = 14.09), and 66.7% were female (n = 250). As for participants' race/ethnicity, 66.9% were White, non-Hispanic (n = 251), followed by Black, non-Hispanic (10.1%, n = 38), and Asian, non-Hispanic (5.9%, n = 22). The remainder of the participants were of other races (4.0%, n = 15), American Indian (0.8%, n = 3), Bi/Multiracial (0.8%, n = 3), and Middle-Eastern (0.3%, n = 1). Of the participants, 10.9% were Hispanic (n = 41). Slightly less than half were single (48.3%, n = 181) and 41.9% were married or cohabitating (n = 157). Few were divorced or separated (7.5%, n = 28) or widowed (1.9%, n = 7). Median household income of the participants was \$60,000 - \$79,999.

More than one-third of participants had a bachelor's degree (37.6%, n=141), followed by some college (23.7%, n=89), a high school diploma or GED (14.4%, n=54), a master's degree (10.4%, n=39), or an Associate degree (10.1%, n=38). Others had professional degrees such as a J.D. or M.D. (1.9%, n=7) or a doctoral degree (1.6%, n=6). As for the religious affiliation of participants, 23.5% reported being Roman Catholic (n=88) and 23.2% simply reported "Christian Church" (n=87). Others included Baptist (14.1%, n=53), Non-denominational Church (11.2%, n=42), and Protestant (4.5%, n=17).

Participants' stressful experiences identified within the past 6 months. Most common were death of someone close (20.0%, n = 75), illness or injury of self (10.1%, n = 38), and illness or injury of someone close (9.3%, n = 35).

### Measures

**Spiritual surrender** The Christian Spiritual Surrender Scale (CSSS; Shannonhouse et al., 2023) was employed to assess participants' beliefs, faith, and action in how they dealt with (or are dealing with) a recent stressful experience. The scale includes ten items (e.g., "I actively chose to turn my suffering over to God because I knew God loved me"). Participants respond to the items using a five-point Likert scale from 1 (*not at all*) to 5 (*a great deal*). The score is calculated by averaging all items; higher scores indicate higher surrender to God. Cronbach's alpha in this study was 0.96.

Attachment to God The Attachment to God Inventory (AGI; Beck & McDonald, 2004) was used to estimate adult attachment tendencies in emotional relationships with God. The AGI includes 28 items covering two subscales: Anxiety (e.g., "I worry a lot about damaging my relationship with God") and Avoidance (e.g., "I am uncomfortable being emotional in my communication with God"). Each scale is reported using 14 items and averaged after reversing some items. Participants respond to each item using a seven-point Likert scale from 1 (*disagree strongly*) to 7 (*agree strongly*). Higher scores on the Anxiety subscale indicate more anxious preoccupation about the status of the participants' relationship with God, and higher scores on the Avoidance subscale indicate greater difficulty relying on God. Cronbach's alphas of the Anxiety and Avoidance scales in this study were 0.93 and 0.89, respectively.

**Behaviors toward God: protest** The Behaviors Toward God Scale (Exline et al., 2021) consists of 16 items that assess four types of behaviors toward God (i.e., Protest, Relation-ship-Building, Disengagement-Exit, and Suppression). The present study used the Protest subscale, which has four items (e.g., "Complained to God," "Argued with God"). Participants respond to each item using a four-point Likert scale from 0 (*not at all*) to 3 (*a great deal*). The score is calculated by averaging items, and higher scores indicate higher levels of protest behaviors toward God. Cronbach's alpha in this study was 0.88.

**Ruminative responses** The Ruminative Responses Scale (Nolen-Hoeksema & Morrow, 1991) was used to estimate how individuals think and behave when feeling depressed. The scale consists of 22 items describing three subscales: Reflection (e.g., "Analyze recent events to try to understand why you are depressed"), Brooding (e.g., "Think 'What am I doing to deserve this?""), and Depression-related (e.g., "Think about how alone you feel"). Each item is reported using a

four-point Likert scale from 1 (*almost never*) to 4 (*almost always*). The scale is scored by summing all items; higher scores indicate a higher level of rumination. Cronbach's alpha of the scale in this study was 0.95. Moreover, Cronbach's alpha of the Reflection, Brooding, and Depression-related subscales were 0.94, 0.83, and 0.79, respectively.

Intrinsic/Extrinsic religiousness The Intrinsic/Extrinsic-Revised scale (I/E-R; Gorsuch & McPherson, 1989) was used to assess individual orientation toward intrinsic or extrinsic religiousness. The scale includes 14 items comprising two subscales: Intrinsic religiousness (e.g., "I try hard to live my life according to my religious beliefs") and Extrinsic religiousness (e.g., "What religion offers me most is comfort in times of trouble and sorrow"). Participants respond using a five-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Subscales are scored by summing items in the specific subscale; higher scores indicate higher levels. Cronbach's alpha of the Intrinsic and Extrinsic religiousness scales in this study were 0.83 and 0.72, respectively.

**PTSD symptoms** PTSD symptoms were measured using the PTSD Checklist (PCL-5; Weathers et al., 2013) in reference to the identified event. The checklist includes 20 items describing PTSD symptoms suggested by DSM-5 (American Psychiatric Association, 2013). Sample PCL-5 items include having "Repeated, disturbing, and unwanted memories of the stressful experience" and "Trouble remembering important parts of the stressful experience." Participants rate how much they were bothered by each symptom in the last month using a four-point Likert scale from 0 (*not at all*) to 4 (*extremely*). The score is calculated by summing all items, and higher scores indicate that individuals feel more bothered by PTSD symptoms. Cronbach's alpha of the PCL-5 in this study was 0.95.

**Depressive symptoms** Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale-Revised (CESD-R; Van Dam & Earleywine, 2011). The scale includes 20 items presenting nine symptoms of depression (e.g., sadness, loss of interest, and appetite). Participants report the frequency of experiencing these symptoms in the past two weeks using a five-point Likert scale from 0 (*not at all or less than 1 day*) to 4 (*nearly every day for two weeks*). The score is calculated by summing all items, and higher scores indicate higher levels of depressive symptoms. Cronbach's alpha for depressive symptoms in the present study was 0.95.

**Anxiety** Anxiety was assessed using the Generalized Anxiety Disorder Screener (GAD-7; Spitzer et al., 2006). The scale has seven items asking how often participants have been bothered by anxiety-related problems in the past two weeks. The items include: "Feeling nervous, anxious, or on edge" and "Not being able to stop or control worrying." Participants responded to each item using a four-point scale from 0 (*not at all*) to 3 (*nearly every day*). The scale is scored by summing all seven items, and higher scores indicate a higher level of anxiety severity. Cronbach's alpha of GAD-7 in this study was 0.93.

**Spiritual discontent** Spiritual discontent was assessed with the Spiritual Discontent subscale of the Religious Coping (RCOPE) measure, referencing how they attempted to cope with their identified stressor (Pargament et al., 2000). The Spiritual Discontent subscale comprises five items tapping into responses to a stressor that reflect anger towards and distance from God. Sample items are, "Wondered if God really cares" and "Felt angry that God was not there for me." Participants report how much they used each item on a four-point Likert scale from 0 (*not at all*) to 3 (*a great deal*). The score is calculated by summing five items after reversing three items, and higher scores indicate greater use of spiritual discontent. Cronbach's alpha in this study was 0.92.

### Study 4 Results and discussion

### **Cross-validation**

A confirmatory factor analysis (CFA) was performed to test how well the scale proposed by EFA in Study 2 would be fitted to a new data set. Mplus 8.1 (Muthén & Muthén, 1998–2017) was used to perform the CFA. Results revealed that loadings were similar and fit indices were acceptable:  $\chi^2$ [44] = 321.01, p < .001, RMSEA = 0.13 [0.12 - 0.15], CFI=0.93, SRMR=0.04. Cronbach's alpha of the Theodical Struggling Scale in this sample was 0.96. The lowest item-total correlation (0.75) and intraclass correlation for single measure (0.70) were strong. The mean level of Theodical Struggling was 1.98 (*SD*=1.21, Range=1–6).

### **Construct validity**

**Correlations with theoretically related measures (convergent validity)** As expected, theodical struggling was moderately and negatively associated with spiritual surrender (r = -.47, p < .001) and intrinsic religiousness (r = -.53, p < .001). Moreover, theodical struggling was moderately and positively associated with anxious attachment to God (r = .57, p < .001), avoidant attachment to God (r = .43, p < .001), and protest behaviors (r = .56, p < .001). Theodical struggling was highly related to spiritual discontent coping (r = .82, p < .001). We also found positive associations between theodical struggling and ruminative responses: depression-related (r = .39, p < .001); brooding (r = .45, p < .001); and reflection (r = .27, p < .001). All correlations are presented in Table 3. These association provide evidence of the new measure's convergent validity. Correlations with theoretically unrelated measure (discriminant validity) As expected, there was no significant association between theodical struggling and extrinsic religiosity (r=.06, p=.235), providing evidence of discriminant validity of the new measure.

**Test-retest correlations** The test-retest correlation of the Theodical Struggling Scale was moderately strong (n=89; r=.46, p<.001).

**Incremental validity analyses** We hypothesized that theodical struggling would contribute variance to indices of distress above and beyond the variance explained by the combined effects of intrinsic religiosity and spiritual discontent. A hierarchical multiple regression was performed for three distress variables: PTSD, depressive symptoms, and anxiety. In Step 1 of each analysis, spiritual discontent was entered. In Step 2 of each analysis, theodical struggling was entered. Theodical struggling showed incremental validity with respect to PTSD and anxiety. Regression analyses results are presented in Table 4. These results suggest the potential value of the new measure in predicting distress.

### **General discussion**

This set of studies provides promising preliminary results regarding the newly-identified construct of theodical struggling. While the violation of one's beliefs in a loving and omnipotent God by experiences of extreme suffering has long been recognized as problematic by philosophers and theologians (Hick, 1966), this construct has rarely been examined empirically. Results of the four studies taken together provide a solid foundation for future work to better understand how and why people struggle to reconcile their beliefs about God with their experiences of suffering and how their struggling might resolve. Such work likely has important implications for interventions to help people who are suffering from highly stressful or traumatic situations. Examples of clinical implications include improved identification of unresolved theodical struggles undergirding distress, research-informed clinical interventions for reducing stress inducing theodical discrepancies, and facilitation of greater clergy and mental health professional collaboration.

Previous qualitative work has suggested that, at least in some contexts, theodical concerns are not common (e.g., Black & Rubinstein, 2004; Lowery et al., 1993). For example, one study of women with breast cancer found that only about 25% reported struggling with issues of meaning and theodicy (Taylor et al., 1999). Our data generally supported this notion of fairly low average levels of struggling,

<b>Table 3</b> Bivariate correlations among Study 4 variables $(N=375)$	ong Study 4 v	ariables ( $N=3$	375)										
	1	2	3	4	5	6	7	8	6	10	11	12	13
1. Theodical struggling													
2. Spiritual surrender	$-0.47^{***}$												
3. Anxious attachment to God	$0.57^{***}$	$-0.32^{***}$											
4. Avoidant attachment to God	$0.43^{***}$	$-0.67^{***}$	$0.21^{***}$										
5. Behaviors toward God: Protest	$0.56^{***}$	$-0.34^{***}$	$0.50^{***}$	$0.16^{**}$									
6. RumDepression-related <sup>a</sup>	$0.39^{***}$	$-0.22^{***}$	$0.51^{***}$	$0.11^{*}$	$0.39^{***}$								
7. RumBrooding <sup>a</sup>	$0.45^{***}$	$-0.21^{***}$	$0.55^{***}$	0.10	0.45***	$0.82^{***}$							
8. Rum-Reflection <sup>a</sup>	$0.27^{***}$	-0.07	$0.26^{***}$	-0.01	$0.26^{***}$	$0.66^{***}$	$0.61^{***}$						
9. Intrinsic religiousness	$-0.53^{***}$	$0.64^{***}$	$-0.24^{***}$	$-0.75^{***}$	$-0.24^{***}$	$-0.17^{**}$	$-0.21^{***}$	-0.09					
10. Extrinsic religiousness	0.06	$0.18^{***}$	0.05	-0.14*	-0.05	0.03	0.08	0.06	0.03				
11. PTSD	$0.39^{***}$	$-0.17^{**}$	$0.48^{***}$	0.07	$0.32^{***}$	$0.70^{***}$	$0.62^{***}$	$0.47^{***}$	$-0.20^{***}$	0.03			
12. Depressive symptoms	$0.38^{***}$	$-0.23^{***}$	$0.48^{***}$	$0.11^{*}$	$0.35^{***}$	0.75***	$0.62^{***}$	$0.47^{***}$	$-0.18^{**}$	-0.06	$0.81^{***}$		
13. Anxiety	$0.42^{***}$	$-0.26^{***}$	$0.53^{***}$	$0.15^{**}$	$0.38^{***}$	$0.72^{***}$	$0.66^{***}$	$0.48^{***}$	$-0.25^{***}$	0.04	0.75***	$0.77^{***}$	
14. Spiritual discontent	$0.82^{***}$	$-0.47^{***}$	$0.62^{***}$	$0.33^{***}$	$0.67^{***}$	$0.44^{***}$	0.47***	$0.24^{***}$	$-0.43^{***}$	-0.01	$0.42^{***}$	$0.44^{***}$	$0.44^{***}$
"Subscales of Ruminative Responses. $*p < .05$ , $**p < .01$ , $***p < .001$	ses. $*p < .05, *$	$**p < .01, ***_{l}$	<i>p</i> < .001										

### Deringer

Table 4Unique contributionof theodical struggling aftercontrolling for negativereligious coping in Study 4

Criterion	Model	Variable	β	р	$\Delta R^2$	F	р
PTSD	Model 1				0.17	73.60	< 0.001
		Spiritual discontent	0.42	< 0.001			
	Model 2				0.01	39.88	< 0.001
		Spiritual discontent	0.26	0.002			
		Theodical struggling	0.19	0.022			
Depressive symptoms	Model 1				0.19	82.21	< 0.001
		Spiritual discontent	0.44	< 0.001			
	Model 2				0.003	41.83	< 0.001
		Spiritual discontent	0.35	< 0.001			
		Theodical struggling	0.10	0.24			
Anxiety	Model 1				0.19	86.34	< 0.001
		Spiritual discontent	0.44	< 0.001			
	Model 2				0.01	46.68	< 0.001
		Spiritual discontent	0.28	< 0.001			
		Theodical struggling	0.20	0.02			

falling somewhere between a "very small" and a "moderate" amount. Similar findings have been found for other negatively-toned religious constructs, such as negative religious coping and anger at God (e.g., Exline et al., 2021).

The systematic development of the struggling measure yielded a measure with good psychometric properties: the items are well-understood across different denominations of Christianity, the factor structure comprises a single factor, and the reliability and preliminary validity of the scale were demonstrated. These results suggest that across Christian denominations, the scale can be used to accurately assess theodical struggling in the context of suffering. The fact that theodical struggling uniquely predicted several aspects of distress when controlling for spiritual discontent coping is impressive, particularly given the high association between spiritual discontent coping and theodical struggling and the relatively low levels of each reported by participants. This ability to predict distress suggests that theodical struggling is indeed a potentially important phenomenon warranting further investigation.

This set of studies is preliminary and its limitations must be acknowledged. The samples were not necessarily representative of the population of Christians in the US, which may limit generalizability. We did not examine differences by denomination or the specific type of stressful event that caused suffering. Although theoretically distinct, theodical struggling is highly associated with spiritual discontent so its additional contribution to accounting for distress is small. The cross-sectional nature of the study design does not allow any inferences of temporal sequencing; theodical struggling may give rise to spiritual discontent, or both processes may occur in tandem, possibilities awaiting future research.

An additional consideration in interpreting our results is that these studies were conducted in the context of the COVID-19 pandemic. While some of the stressors individuals reported were explicitly related to COVID-19, many others may have been related (e.g., death, illness of self or others, financial hardship); we only asked for a very brief description in our surveys. The COVID-19 pandemic created a background level of stress that the index stressor was imposed upon, and it is impossible to know how these finding would generalize to suffering in more ordinary times.

In spite of these limitations, these studies advance our understanding of this newly-elaborated construct, theodical struggling, and provide a springboard for future work to further illuminate it. With this scale in hand, many research questions can be posed to advance our understanding. One set of questions concerns the determinants of theodical struggling. Perhaps certain types of beliefs or theodicies render people more or less predisposed to struggling when they endure severe suffering. Different types of suffering might also lead to more or less struggling. For example, events for which a clear human agent can be identified might produce less suffering than would events for which no agent is identifiable (e.g., natural disasters, accidents). Another set of questions regards the processes of making meaning, through which people engage in struggling and other meaning making processes that may help restore harmony among their global beliefs and their understanding of their stressful experiences. In addition, it would be worthwhile to include additional measures of suffering and distress in addition to those studied here (i.e., psychological distress) such as isolation, silence, and withdrawal from one's social relationships or community. Studies conducted to address these questions will yield greatly increased understanding of theodical struggling and may then inform pastoral and clinical work with suffering people who are attempting to reconcile their understanding of God with their experiences.

### **Appendix 1**

### Theodical Struggling Scale

Not at all (1)	A very small amount	A moderate amount	U	A great deal (5)	A very large amount (6)
	(2)	(3)			

Sometimes when people encounter challenging or difficult situations, they struggle to understand how their experiences fit into God's plan or how God might allow such experiences to happen. Please answer the following questions in response to your stressful experience you just described and the suffering you have experienced as a result of it. How much have you experienced each of the following thoughts or feelings over the past week?

- 1. Based on my understanding of God's goodness, my current suffering leads me to question God's caring for me.
- 2. Based on my understanding of God's mighty power in the world, my current suffering leads me to wonder whether God can right all of the wrongs around the world.
- Based on my understanding of God's goodness, my current suffering leads me to feel like God doesn't love me.
- Based on my understanding of God's mighty power in the world, my current suffering leads me to question God's ability to help me.
- Based on my understanding of God's presence, my current suffering makes me question if God is really here for me.
- 6. Based on my understanding of God's goodness, my current suffering leads me to doubt God's goodness.
- 7. Based on my understanding of God's mighty power in the world, my current suffering leads me to doubt God's ultimate ability to control things.
- Based on my understanding of God's presence, my current experience makes me feel like my suffering makes no sense in light of my religious beliefs.
- Based on my understanding of God's mighty power in the world, my current suffering leads me to worry that God can't take care of me when I really need Him.
- 10. Based on my understanding of God's goodness, my current suffering leads me to worry that God won't take care of me when I really need Him.
- 11. Based on my understanding of God's presence, my current suffering makes me question God's existence.

*Note.* The total Theodical Struggling Scale score is calculated by averaging all items

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**Data availability** Datasets are publicly available at the Open Science Framework.

**Code availability** Measurement EFA dataset and codebook: https://osf. io/YFBKT/.

### Declarations

**Ethics approval** This study was conducted under the oversight and with the ethical guidance of the Internal Review Board of the University of Connecticut and the protocol was approved by same.

**Consent to participate** Informed consent was obtained from all individual participants included in the study.

**Conflicts of interest/competing interests** The authors have no conflicts of interest to declare that are relevant to the content of this article.

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