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Psychometric Investigation of the Attachment to God Inventory and its Implications for the Psychology of Religion and Spirituality

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Doctor of Philosophy

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ABSTRACT

A Psychometric Investigation of Attachment to God Inventory
and Its Implications for the Psychology
of Religion and Spirituality

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The purpose of this study is to conduct a psychometric investigation of the Attachment to God Inventory (AGI; Beck & McDonald, 2004) using a national sample of socioeconomically and religiously diverse young adults commonly referred to as *millennials* (i.e., persons born between 1980 and 1996; Pew Research Center, 2018). Confirmatory factor analytic (CFA) results failed to yield satisfactory fit for the AGI model using the entire sample and a Christian-only subsample. Alternative model specifications that accounted for method factors, higher-order factors, and bi-factors also failed. Exploratory factor analysis (EFA) suggested alternative factor solutions that were cross-validated using CFA. Support for an orthogonal, 2-factor, 8-item model possessed excellent model fit ($\chi^2(20) = 172.186$; RMSEA = .051 [.044–.058]; CFI/TLI = .955/.993). Configural, metric, and scale measurement invariance were supported based on gender- and ethnic-identity considerations; however, invariance was not supported based upon religious affiliation. The resulting model consisted of two constructs that were labeled *divine rejection* (McDonald's ω = .838 [95% CI: .827–.849]) and *divine dependence* (McDonald's ω = .862 [95% CI: .852–.872]) and were found to be invariant only for individuals who identified as Christian. Latent profile analysis (LPA) of the standardized scores of the two factors yielded a five-class solution whose classes were labeled *intrinsic*, *independent, everyday, strained,* and *detached believers*. Class membership was found to be most associated with *divine rejection*. Rather than considering the resulting model to be an improved model based on attachment to God theory, this study concludes that the resulting model is most consistent with social comparison theory. Several hypotheses and recommendations for future research are made.

Keywords: attachment to God, attachment theory, the psychology of religion and spirituality, psychometric investigation

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DESCRIPTION OF DISSERTATION STRUCTURE AND CONTENT

The format of this dissertation, *Psychometric Investigation of the Attachment to God Inventory and Its Implications for the Psychology of Religion and Spirituality*, is different from the typical dissertation layout. Instead of having sections separated by chapters (as they are in most traditional dissertations), the body of this dissertation is written in the length and style of a standard journal article. The full literature review is included in Appendix A. Psychometric analyses of the other measures used in this study are presented in Appendix B. Tables and figures are presented in Appendix C. Study measures and materials are presented in Appendix D. University Institutional Review Board (IRB) documentation is available in Appendix E. The preliminary pages and supporting documents in the appendices in this document remain in the traditional dissertation format.

Introduction

Conceptualizing religious belief and behavior as an attachment process has emerged as a promising field of research in the psychology of religion and spirituality (Granqvist, 2020; Granqvist & Dickie, 2006; Granqvist & Kirkpatrick, 2004, 2008, & 2013; Kirkpatrick, 1999; Kirkpatrick, 2005). Proponents of this approach have argued that extending attachment theory into the scientific study of religion and spirituality has accomplished two critical needs in the discipline. First, religion-as-attachment integrates a widely established theoretical model (see Cassidy & Shaver, 2008) into a discipline with little agreement on conceptual definitions or theoretical operationalization (see Hill et al., 2000; Hill & Pargament, 2008; Zinnbauer & Pargament, 2005). Second, attachment theory offers an integrated biopsychosocial and spiritual framework from which empirical investigations of diverse religious and spiritual beliefs and practices can be tested (Flannelly & Galek, 2010; see also Batson, 1987). As such, religion-as-attachment scholars argue that incorporating attachment theory would benefit research conducted in the psychology of religion and spirituality by incorporating this well-established theory into a discipline that has long sought mainstream attention (Hood et al., 2009; cf. Gorsuch, 1988).

Integral to the religion-as-attachment model is the notion that the relationship between religious believer and deity can be conceptualized within the framework of attachment theory (see Kirkpatrick & Shaver, 1992). To begin, these scholars, herein referred to as attachment to God[1] theorists, observed that the etymology of "religion" (from the Latin *religare*) literally means "being bound" or "connected" (Ferm, 1945, as quoted by Granqvist & Kirkpatrick, 2013,

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[1]Throughout this study the terms "God," "deity," and "divine" are used interchangeably as a reference to a divine being. The capitalized form of "God" will be preferred over "god."

p. 141). Additionally, these scholars cited religious liturgy and scriptural narratives from the Abrahamic traditions (i.e., Judaism, Christianity, and Islam) to suggest that the attachment relationship between an individual and deity is a core component of religious worship and spiritual practice (Granqvist, 2010). Lastly, based on exhaustive reviews of the literature inside and outside of attachment theory and the psychology of religion and spirituality, the theorists asserted that the perceived relationship between religious believer and deity satisfies the established criteria for an attachment relationship, which include the following: (a) seeking and maintaining proximity to God, (b) seeing God as a safe haven, (c) seeing God as a secure base, (d) responding to separation and loss, and (e) perceiving God as "stronger and wiser" (see Granqvist & Kirkpatrick, 2008, 2013; Kirkpatrick, 1999, 2005; Granqvist et al., 2010; Kimball et al., 2013).

To assess individuals' attachment relationships with deity, researchers have utilized self-report measures culled from research on adult attachment. Of interest to this investigation is the adaptation of the Experiences in Close Relationship Questionnaire (ECR; Brennan et al., 1998)—one of the more prominent measures in research on adult attachment—into the Attachment to God Inventory (AGI; Beck & McDonald, 2004), which has attained comparable status in religion-as-attachment research. Although both measures are frequently used in their respective fields, the AGI has yet to receive psychometric scrutiny like that of its progenitor, which has produced significant revisions based on classical test (ECR-R; Fraley et al., 2000) and item-response theories (ECR-12; Lafontaine et al., 2015). More importantly, critical research into the theoretical conceptualization and operationalization of the ECR has encouraged researchers to develop alternative measures based on the observation that item content of the ECR may not adequately represent core concepts of adult attachment theory (see Cameron et al.,

2012; Fraley & Shaver, 2000; Scharfe, 2016; Mikulincer & Shaver, 2007). Unfortunately, a review of the literature on attachment to God revealed that empirical investigations into the psychometric properties of the AGI are sparse. Thus, the purpose of this study is to conduct a psychometric investigation of the AGI.

Construction and Test Development of the Attachment to God Inventory

Derived from the Experiences in Close Relationships Scale (Brennan et al., 1998), the AGI was developed by Beck and McDonald (2004) to assess the "attachment dimensions of avoidance of intimacy and anxiety about abandonment as they apply to [the] relationship with God" (Beck & McDonald, 2004, p. 94). Specifically, these authors sought to develop a psychometrically refined instrument that could more adequately measure the compensation and correspondence hypotheses in research on attachment to God. In keeping with the theoretical tenets of attachment theory, the authors researched, developed, and published a two-dimensional scale that possessed simple factor structure, high internal consistency, and minimal shared variance between the two hypothesized subscales.

The two adult attachment domains—*attachment avoidance* and *attachment anxiety*—operationalized by the ECR were reconceptualized by Beck and McDonald (2004) as *avoidance of intimacy with God* (14 items) and *anxiety over abandonment* (14 items). *Avoidance of intimacy with God* was defined as "avoidance of intimacy and compulsive self-reliance," and *anxiety over abandonment* was defined as the "potential [for] abandonment and lack of intrinsic lovability" (Beck & McDonald, 2004, p. 100). Following a facet-based approach similar to that of the ECR, the authors developed the AGI to assess several hypothesized components subsumed within the two attachment to God domains (see Table C1). Facets within the *avoidance of intimacy with God* construct included (a) difficulty depending on God (i.e., anxiety about

depending, relying, or counting on God), (b) unwillingness to be emotionally intimate with God (i.e., trouble with expressing affection or communicating intimately), and (c) a need for self-reliance (i.e., need for autonomy and independence within the relationship). *Anxiety over abandonment* facets included (a) fear of potential abandonment or rejection by God, (b) angry protest (i.e., anger at the perceived non-responsiveness from God), (c) jealousy of God's seeming differential intimacy with others (i.e., concerns that God prefers others compared to oneself), (d) anxiety over one's lovability in God's eyes (i.e., concerns that one is not loved or is unlovable), and (e) preoccupation with the relationship with God (i.e., worry, rumination, or obsession with the status of the relationship). For a comparison of the ECR and AGI items and attachment dimensions, the reader is referred to Table C2 and Table C3.

.The authors conducted a pilot study (Study 1; $n = 507$) that was followed by two replication studies using a sample of Christian undergraduate and graduate students (Study 2; $n = 118$) and religious, churchgoing adults ($n = 109$). However, the authors published the methods and results of only the pilot study (see Table C4). The authors reported that the AGI's test-construction methodology used a principal component analysis (PCA) that employed the orthogonal varimax rotation method. The authors retained two factors based on Cattell's scree plot and Kaiser's eigenvalue-greater-than-one rule, and items that possessed factor loadings ≥ .40 and cross-loadings ≤ .25 were also retained. The authors reported good internal consistency across three studies for the *avoidance of intimacy with God* (Cronbach's $\alpha = .84, .84, .86$) and *anxiety over abandonment* (Cronbach's $\alpha = .84, .80, .87$) constructs. Shared variance was reported as being modest in the two university student samples (Study 1: $r = .248$, $r^2 = .062$; Study 2: $r = .21$, $r^2 = .044$); however, a stronger relationship was observed in the sample of the adult community (Study 3: $r = .560$, $p < .001$; $r^2 = .314$).

As the prominent measure in research on attachment to God, the AGI has primarily been used to investigate the social correspondence and compensation hypotheses. In discussing their findings based on their pilot investigations, the authors found evidence to support both hypotheses but with evidence "trending" toward the correspondence hypothesis (Beck & McDonald, 2004, pp. 100–101). Notably, the authors stated that the "pattern of correlations is more ambiguous than what either the correspondence or compensation hypotheses would have anticipated" (p. 96). With these unclear findings, the authors encouraged researchers to incorporate the AGI in future studies to test the correspondence and compensation hypotheses further with additional measures and diverse samples (for an overview of research conducted using the AGI, the reader is referred to Appendix A).

Efforts to use diverse samples to test the correspondence and compensation hypotheses have primarily occurred by first translating the AGI from English into various foreign languages, such as Chinese (Yeo, 2011), Italian (Rossi & Tagini, 2011), Korean (Kim et al., 2017), and Portuguese (August et al., 2018). After the translation process, these authors submitted their items to exploratory factor analyses (EFA) and confirmatory factor analyses (CFA) but failed to replicate the original AGI model. For example, Yeo's (2011) dissertation study, which investigated a Chinese translation using data collected from a Taiwanese sample, identified a two-factor, 13-item model that was derived from EFA but possessed poor model fit (RMSEA = .070; CFI = .905; GFI = .923). Portuguese and Italian translations suggested 17- and 18-item models, respectively, after failing to replicate the original AGI model. Perhaps most promising was a study of a Korean translation. This study successfully replicated the original AGI model with good fit ($\chi^2(307)$ 413.50; NFI = .87, CFI = .96, GFI = .90); however, these authors noted the model appeared "very busy and complex because of the many covariances between error terms

(27 pairs) and cross-loadings between latent variables and items (9 items)" (Kim et al., 2017, p. 583). Indeed, the number of adjustments used in this model would indicate that the model is over-identified and less than parsimonious.

The failure to replicate Beck and McDonald's (2004) model in these studies could very well be a result of language and cultural issues. For example, Yeo (2011) cited this issue as a possible explanation for the poor model fit of her Chinese translation; however, she continued, "it is possible that the AGI validated in the American samples could have resulted in a poor model fit if it were analyzed by a CFA" (p. 110). Indeed, despite the prominent use of the AGI in the psychology of religion and spirituality, it is surprising that researchers have not conducted psychometric studies of the English version of the AGI.

Evidence for the need to evaluate the AGI can be found when reviewing the measure's construction and published psychometric properties (see Table C4). For example, most of the item communality estimates (h^2), which represent the proportion of variance an item explains based on the number of extracted factors, fall below the generally accepted guidelines of ≥ 0.40 (Costello & Osborne, 2005; Gorsuch, 1983) to ≥ 0.50 (Streiner, 1994). According to these guidelines, between 13 (46.43%) and 27 (96.43%) of the AGI's 28 items would be considered for elimination. Additionally, although not as concerning as the preponderance of items with low communality estimates, three of the 28 items possess cross-loadings that exceed recommended guidelines (Henson & Roberts, 2006; Park et al., 2002).

One possible explanation for the AGI's poor item properties could be found in the test construction method employed by Beck and McDonald (2004). These authors submitted the data to principal component analysis (PCA) using the orthogonal varimax rotation method and retained factors based on Cattell's scree plot and Kaiser's eigenvalue-greater-than-one rule.

Collectively, this method is commonly referred to as the "Little Jiffy" approach (Kaiser, 1970, p. 402). Although widely used across psychology, this method has been strongly criticized because it is widely agreed that PCA is distinct from EFA (see Velicer et al., 2000) and that the orthogonal varimax rotation artificially constrains factors that, in the case of psychological and social science research, are often related (see Comrey & Lee, 1992; Fabrigar et al., 1999; Henson & Roberts, 2006; Park et al., 2002; Preacher & MacCallum, 2003). As such, oblique rotations, which allow for factors to share variances, have been suggested to be used first and only constrain the factors to be uncorrelated if supported by the data (Ford et al., 1986; Fabrigar et al., 1999). Additionally, several contemporary factor retention methods have been found to be superior to the eigenvalue-greater-than-one rule, which is prone to factor over-extraction (Hayton et al., 2004).

Methodological Considerations and Advances in Classifying Attachment Styles

Another area of concern is that the AGI seeks to classify an individual's style of attachment to God using a 2 × 2 categorical framework. Underlying this framework are the two adult attachment dimensions—*attachment avoidance* and *attachment anxiety* (Main & Solomon, 1990; Bartholomew, 1990; Bartholomew & Horowitz, 1991), which are reconceptualized by the AGI as *avoidance of intimacy with God* and *anxiety over abandonment*, respectively (Beck & McDonald, 2004). These two dimensions are conceptualized as orthogonal to create a space wherein individuals are classified into one of four possible attachment styles—*secure*, *preoccupied*, *dismissing avoidant*, and *fearful avoidant* (see Figure 1C).

The simplicity of the 2 × 2 framework has been frustrated by the complexity of accurately classifying an individual's attachment style. With the publication of the ECR, researchers were provided accessible and understandable computer syntax that classified

individual attachment style based on the average (i.e., mean) *attachment avoidance* and *attachment anxiety* scores. Mean scores were then were submitted to Fischer's linear discriminant analysis using coefficients from Brennan et al.'s (1998) sample in order to classify individuals' attachment styles. Classifying in this manner was simple, accessible, and empirical and likely contributed to the ECR's rapid adoption and prominence. However, Fraley and Waller (1998; see also Fraley et al., 2015), whose article was published concomitantly with Brennan et al.'s study, strongly cautioned against the application of mean score categorization methods based on findings from their taxonometric analyses, which suggested that attachment styles are more continuous than categorical in nature (for a review see Mikulincer & Shaver, 2007; Crowell et al., 2008) and that the two domains are not as orthogonal as theorized (Cameron et al., 2012).

Even though the AGI did not endorse any specific categorization or classification scheme, given the authors' acknowledgment that their measure was an adaptation of the ECR, it is understandable that research using the AGI has employed mean-scoring schemes and has cited Brennan et al. (1998) as a justification (e.g., Cooper et al., 2009; Bruce et al., 2011; Homan, 2012; Homan & Boyatzis, 2010; Beck, 2006a, 2006b; Okozi, 2010). Notwithstanding, evidence that the two AGI constructs are not orthogonal and are at least moderately correlated is not only observed in Beck and McDonald's (2004) publication, but has also been found in the literature (r range: $r = -0.28$ [Morúa, 2008] to $r = 0.36$ [Homan, 2012]).

The debate over attachment classification versus categorization is ongoing (for a review see Fraley et al., 2015) and has left researchers without a widely agreed-upon alternative to identifying a respondent's attachment style from self-report data. Recent advances in mixture modeling, however, may offer an attractive alternative. Mixture models assume data may be

sampled from separate, underlying heterogeneous subpopulations, and the observed distribution of scores represents a mix of parameters from separate subpopulations or classes (see Bauer & Curran, 2004). One form of mixture modeling, referred to as latent profile analysis (LPA), assesses class membership based on continuous data, such as standardized subscale or factor scores. The application of LPA may be useful in illuminating how individual differences can be meaningfully and empirically interpreted in order to classify them into attachment style subgroups.

Aims of This Study

Noting the prominence of the AGI in religion-as-attachment research and the simultaneous lack of psychometric investigation, this study seeks to be the first to examine the AGI's reliability and validity by using a national and religiously heterogeneous sample of individuals who are often termed by researchers and demographers as *millennials* (i.e., persons born between 1980 and 1996; see Pew Research Center, 2018) and by using item-centered and person-centered modeling. This study follows the observation that "none of the existing studies of attachment to God have been tested on large representative samples" (Manglos, 2012, p. 191).

To this end, this study will first conduct a confirmatory factor analysis (CFA) of the AGI to test the replicability of the published model. This analysis will follow psychometric studies that test for method factors, higher-order factors, and bi-factor models in order to exhaust alternative model specifications (see McKay et al., 2014; Martín-Albo et al., 2007; Supple et al., 2013).

Because test-construction methods have advanced beyond the "Little Jiffy" method, items of the AGI will also be submitted to exploratory factor analysis (EFA) following current methodological recommendations. This analysis will be conducted based on the observation that

the methodological oversights identified in the AGI's construction may contribute to conflicting results in research on attachment to God (see Appendix A). Suitable factor solutions will then be cross-validated via CFA as a test of structural validity and via tests of measurement invariance based on gender, ethnicity, and religious affiliation.

Once a suitable model has been identified, external validity will be assessed by placing constructs within the nomological network (Cronbach & Meehl, 1955; Campbell & Fiske, 1959) of the psychology of religion and spirituality. Such a network illuminates the placement of model constructs in relation to others used within the field of the psychology of religion and spirituality.

In order to assess the generalizability and applicability of the four-category adult attachment model to the attachment to God theory, mixture modeling will be performed using latent profile analysis (LPA). This analysis will attempt to identify respondent subgroups, or classes, that emerge from individual response patterns. Once an optimal class solution is obtained, 21 constructs derived from 11 measures that were simultaneously administered as part of this study (see Appendix B) will be submitted to multinomial logistic regression in order to assess the predictors of class membership. The conjoint application of LPA with multinomial logistic regression will allow for a rich and descriptive understanding of each class, an understanding that can encourage further theoretical development and inform clinical practice.

Method

The data were collected through an internet survey as part of a cross-sectional study conducted by principal investigators at Teachers College at Columbia University from April 2013 to February 2015. Individuals were recruited from undergraduate and graduate institutions in the United States. To incentivize participation, the researchers informed individuals that they would receive a personalized report with selected scholarly references on the measures used in

the study and gain entry in a random drawing for a $500 Amazon gift card. The parameters of this study and data collection were approved by the ethics committees of the corresponding universities (see Appendix E). The data were collected anonymously via Qualtrics (qualtrics.com), which hosted the data on a secure server. Participants were asked for their consent and were given the option to withdraw from this study before, during, and after data collection.

Participants

The study was completed by 4,336 of 4,750 (91.28%) individuals who accessed the survey. Exclusion criteria included individuals who endorsed non-theistic orientations (e.g., agnosticism, atheism, secular humanism; n = 786) and individuals who were not considered millennials (i.e., not born between 1980 and 1996; n = 32). Pre-analysis screening for multivariate outliers on AGI responses was performed using the Mahalanobis distance test, and 244 individuals were identified for removal (5.63%). The resulting sample included 2,981 individuals (68.75% of participants who completed the study). The mean age was 20.53 (σ = 3.04; range: 18–34; median: 20; mode: 18; 25th percentile: 18; 75th percentile: 21; IQR: 3). The individuals in the sample were largely single or never married (n = 2,346; 78.7%), female (n = 2,116; 71.0%), heterosexual (n = 2,328; 78.09%), Christian (n = 2,663; 89.33%) and Caucasian (n = 2,011; 67.46%) with an estimated personal annual income of less than $15,000 ($n$ = 2,491; 83.56%). The majority of respondents indicated that religion or spirituality was “highly important” (n = 1,784; 59.85%) and attended church at least once a week (n = 1,692; 56.76%). For a detailed description of the sociodemographic and religious characteristics of participants in this study, the reader is referred to Table C5.

Measures

The study battery comprised self-report measures from social psychology, health psychology, and the psychology of religion and spirituality (see Appendix D). These measures included the (a) Attachment to God Inventory (AGI; Beck & McDonald, 2004), (b) Brief Multidimensional Measure of Religiousness and Spirituality (BMMRS; Fetzer Institute/National Institute of Aging Working Group, 1999/2003), (c) Spirituality Scale (SS; Delaney, 2005), (d) Index of Core Spiritual Experiences (INSPIRIT; Kass et al., 1991), (e) Self-Transcendence subscale of the Temperament and Character Inventory (TCI-ST; Cloninger et al., 1994), (f) Quest Scale (QS; Batson & Schoenrade, 1991a, 1991b), (g) Intrinsic Spirituality Scale (ISS; Hodge, 2003), (h) Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), (i) Friendship Scale (FS; Hawthorne, 2006), (j) Experiences in Close Relationships Scale–Short Form (ECR-S; Wei et al., 2007), (k) Generalized Anxiety Disorder Scale (GAD-7; Spitzer et al., 2006), and (l) Patient Health Questionnaire (PHQ-9; Spitzer et al., 2001). Frequency and categorical response proportions of the AGI are displayed in Table C6, and inter-item correlations are displayed in Table C7. The reader is referred to Appendix B for detailed discussion, psychometric analysis, and descriptive statistics for each measure.

Data Analytic Strategy

The study sample was randomly stratified into two samples based on a participant's age, gender, sexual orientation, ethnic identity, estimated parental income, type of growing-up environment, religious denomination, religious attendance, and religious importance (see Table C5). A total of 1,482 (49.7%) participants were assigned to the EFA group and 1,499 (50.3%) to the CFA group. Analyses performed with separate samples provided three essential requirements needed in psychometric validation research.

First, separate samples offer a straightforward assessment of the replicability of the published AGI within a CFA framework. Prior to performing an EFA, the factorability of the data was assessed using the Kaiser-Meyer-Olkin (KMO), Bartlett's (Bartlett, 1951), Jennrich's (1970), and Steiger's (1980) tests. The data were deemed appropriate for EFA with statistically significant ($p < .05$) test results and a KMO statistic $\geq .60$. The number of factors to extract was based on a comparison of the results produced by *FACTOR 10.8* (Lorenzo-Seva & Ferrando, 2006, 2013) and *SPSS R-Menu* (Basto & Pereira, 2012), which performed Kaiser's rule, Cattell's scree test, Raîche et al.'s (2006) optimal coordinate and acceleration factor methods, Revelle and Rocklin's (1979) very simple structure criterion, Velicer's (1976) minimum average partial test, Horn's parallel analysis (PA; Horn, 1965) using mean and 95th percentile eigenvalues comparison, Ruscio and Roche's (2012) comparative data analysis, and Lorenzo-Seva et al.'s (2011) hull method. Kaiser's rule and Cattell's scree test were performed to replicate Beck and McDonald (2004).

Multiple rotation methods were employed to compare idiosyncratic differences between factor solutions (see Schmitt, 2011; Schmitt & Sass, 2011). Assuming the AGI factor structure was well-developed (i.e., factor structure possesses fewer, smaller cross-loadings) and the resulting EFA would yield a simple structure, Geomin (Yates, 1987), CF-Quartimax (Crawford & Ferguson, 1970), and Direct Quartimin (Jennrich & Sampson, 1966) rotations were employed. Because of the possibility of psychometric underdevelopment in the AGI, CF-Equamax and CF-Facparsim (Crawford & Ferguson, 1970) rotations were employed to ascertain the potential for a more complex factor structure.

Factor solutions were extracted using the weighted least squares mean and variance adjusted estimator (WLSMV; Muthén & Kaplan, 1985), which has been found to outperform

maximum likelihood (ML) estimation methods when response scales are ordered-categorical (see Muthén et al., 1997; Forero et al., 2009; Flora & Curran, 2004). Missing values were imputed using full information maximum likelihood (FIML) estimation for ordinal data (Jöreskog & Moustaki, 2001, 2006). In concert with evaluating item content and theoretical considerations, item thresholds (λ) between ± 0.32 (Comrey & Lee, 1992) and communalities (h^2) < .40 (Costello & Osborne, 2005; Gorsuch, 1983) were considered for removal.

Efforts to evaluate the structural validity of the AGI followed the example of studies that investigated the factor structure of the Rosenberg Self-Esteem Scale (RSES; see McKay et al., 2014; Martín-Albo et al., 2007; Supple et al., 2013). In addition to investigating the published model, these researchers tested the possibility of method factors, bi-factor models, and higher-order factor models (see Figures C2 through C6). By testing alternative models concurrent with the published model, this study sought to avoid the contentious back-and-forth that has plagued RSES use and research.

Second, utilizing separate samples allowed EFA procedures to be conducted using contemporary psychometric methods. These methods may suggest an alternative factor structure that may better represent the data that can also be compared to the existing AGI model.

Third, cross validating the factor solutions produced via EFA procedures within a CFA framework closely follows recommended best practice in the literature on creating and validating psychometric tests (Kline, 2010; Teo & Kam, 2014).

Confirmatory factor analysis was performed using the WLSMV estimator with FIML imputation using the standardization method (i.e., item residuals were uncorrelated and all factor variances were set to 1). Model fit of congeneric models was assessed by examining the RMSEA, CFI, and TLI indices. In accordance with the recommendations of several authors,

models with RMSEA values ≤ .08 and CFI/TLI values ≥ .95 suggested satisfactory fit (see Hu & Bentler, 1998, 1999; Byrne, 2013; Marsh et al., 2004). These guidelines, however, were not considered as rigid, heuristic cutoff points but rather as information to consider in combination with item content and theoretical considerations (for a discussion see Marsh et al., 2004; Marsh et al., 2005).

Once a well-fitting congeneric model was established, tests of measurement invariance between genders (females and males), ethnicities (White/Caucasian and ethnic minority groups), and religious affiliations (Christian and non-Christian) were explored using multi-group confirmatory factor analysis (MG-CFA). For each group comparison, participants with the former characteristics (i.e., females, Caucasians, and Christians) were specified as the reference group and those with the latter characteristics (i.e., males, ethnic minority groups, and non-Christians) were specified as the comparison group. Measurement invariance testing was conducted using the WLSMV estimator with probit link and theta parameterization. Configural invariance was tested by fixing the factor variance to 1 and the factor mean to 0 in each group for identification such that all item factor loadings and thresholds were estimated. The residual variances were constrained to 1 in both groups. In accordance with Cheung and Rensvold (2002), an RMSEA ≤ .05 for the configural model was recommended prior to more restrictive invariance testing. After establishing configural invariance, metric invariance was performed by constraining factor loadings to be equal across groups in order to assess indicator and latent construct pattern similarities. Lastly, scalar invariance was tested to assess whether constructs were measured on the same scale across comparison groups. In this test, the factor variance and mean were fixed to 1 and 0, respectively, in each reference group for identification, and the factor variance and mean were then estimated for each comparison group. All factor loadings

and item thresholds were constrained to be equal across groups, and all residual variances were constrained to be equal to 1.

In accordance with guidelines for measurement invariance testing, RMSEA, CFI, Steiger's (1990) Gamma-hat (ɣ̂), and McDonald's Noncentrality Index (MNCI; McDonald, 1989) were consulted (see Chen, 2007; Cheung & Rensvold, 2002; Vandenberg & Lance, 2000). The criteria for invariance was set at ΔRMSEA $\leq .015$, ΔCFI $\leq .01$, ΔGamma-hat $\leq .001$, ΔMNCI $\leq .002$. The chi-square difference test was not used due to its oversensitivity to large sample sizes (see Brannick, 1995; Kelloway, 1995; Chen, 2007; Rutkowski & Svetina, 2014; Cheung & Rensvold, 2002).

With a satisfactory invariant model, the correlational relationship between the constructs of the AGI was assessed with those of other measures administered in the study. To achieve this goal, concomitant psychometric investigations of each measure were performed following the EFA and CFA methodology outlined above. The reader is referred to Appendix B for a detailed discussion of each measure and the results of the psychometric analyses. Pearson's product moment (r_{xy}) and disattenuated correlations (r_{pc}) of the standardized factor scores of each measure were assessed to establish convergent and discriminant validity.

Lastly, a latent profile analysis (LPA) of the standardized factor scores derived from the CFA of the AGI was performed using the robust maximum likelihood estimator (MLR). In accordance with the recommendations of Pastor et al. (2007) and Marsh et al. (2009), a one-class model was specified with additional classes added in a stepwise fashion ($k + 1$). Models were evaluated based on log likelihood (LL), Akaike's information criterion (AIC), Consistent Akaike's information criterion (CAIC), Bayesian information criterion (BIC), sample-size-adjusted BIC (SABIC), Vuong-Lo-Mendell-Rubin's likelihood ratio test (VLMR), Lo-Mendell-

Rubin's likelihood ratio test (LMR), and the bootstrap likelihood ratio test (BLRT; see Nylund et al., 2007; Foti et al., 2012; Marsh et al., 2009; Morin et al., 2011; Henson et al., 2007).

Although cutoff scores for LPA model fit do not exist, general guidelines for optimal class solutions are suggested with statistically significant ($p < .05$) VLMR, LMR, and BLRT values and larger entropy values. Lower log likelihood and information criteria statistics were preferred when compared to alternative solutions (Yang, 2006; Nylund et al., 2007). The optimal class solution was repeated twice with the optimal seed value to ensure that the best log likelihood was replicated. With an optimal latent profile solution, participants were then assigned to classes based on the probability of membership. Predictors of class membership were assessed using multinomial logistic regression with classes regressed on the first-order factors of the other constructs assessed in this study. Classes were interpreted based on the results of this analysis in concert with attachment to God theory and research (see Marsh et al., 2009; Nylund et al., 2007; Foti et al., 2012).

Data management and processing were performed using *SPSS 26* (International Business Machines, 2019), and statistical analyses were performed using *Mplus 8.2* (Muthén & Muthén, 2018).

Results

The two groups were statistically equivalent based on the stratification criteria ($F(10, 2214) = .883$, $p = .549$; Wilk's $\Lambda = .996$, partial $\eta^2 = .004$). Separate analyses of variance (ANOVAs) were conducted for each stratification variable and were found to be not significantly different based on age, gender, sexual orientation, ethnic identity, estimated parental income, type of growing-up environment, religious denomination, religious attendance, and religious

importance (see Table C8). Given these results, a CFA of the published AGI model was attempted using the designated sample.

Psychometric Investigation of the Attachment to God Inventory

Because of the theoretical assumption that the two factors of the AGI were orthogonal, uncorrelated two-factor models were first tested. As depicted in Table C9, the uncorrelated two-factor model had poor initial fit (Model 3a). When the two factors were allowed to correlate, however, model fit remained poor (Model 2a). Modification indices suggested correlated residuals among several items. In total, 66 pairs were specified, but model fit remained poor. Based on the data from study participants, the published structure of the AGI was not supported as either an orthogonal or correlated model.

Efforts to achieve satisfactory model fit were attempted by specifying positive- and negative-word method factors within the model (see Figure C3 and Figure C4). The uncorrelated two-factor model with positive- (Model 3b) and negative- (Model 3c) method factors had poor fit. Similarly, the fit of models that incorporated both positive- and negative-method factors that were uncorrelated (Model 3d) and correlated (Model 3e) were also poor. Uncorrelated two-factor models with positive- (Model 2b) and negative- (Model 2c) word method factors also had poor fit. Fit was similar for uncorrelated two-factor models with uncorrelated (Model 2d) and correlated positive- and negative-word method factors (Model 2e).

Since two-factor models failed to achieve satisfactory model fit, a unidimensional model was attempted (see Figure C2). This model hypothesized that all 28 items corresponded to an *attachment to God* factor. The model fit of this unidimensional model was poor (Model 1a) as was the fit for models that specified positive- (Model 1b) and negative-word (Model 1c) method

factors. Models with uncorrelated (Model 1d) and correlated (Model 1e) positive- and negative-word method factors also had poor fit.

A higher-order factor model that specified *anxiety over abandonment* and *avoidance of intimacy with God* factors as corresponding to an overall *attachment to God* factor was attempted (see Figure C5); however, model fit was poor (Model 4a). Models that specified positive- (Model 4b) and negative-word (Model 4c) method factors also had poor fit, as did models with uncorrelated (Model 4d) and correlated (Model 4e) method factors. Lastly, the study attempted a bi-factor model (see Figure C6), which consisted of a general *attachment to God* factor corresponding to items assigned to uncorrelated *anxiety over abandonment* and *avoidance of intimacy with God* factors, but this bi-factor model had poor model fit (Model 5).

It was hypothesized that poor model fit may be attributable to the religious diversity of this study's sample. As a reminder, the AGI was developed and tested using a Christian-only sample. Correlated and uncorrelated two-factor models were tested using individual responses who identified as Christian in the CFA sample (n = 1,328; 49.87%); however, as depicted in Table C10, model fit was poor and remained so for correlated (Models 2a–2e) and uncorrelated (Models 3a–3e) two-factor models with positive- and negative-word method factors. Unidimensional (Models 1a–1e), high-order (Models 4a–4e), and bi-factor (Model 5) models also had poor fit. Thus, based on the results of this study, the factor structure of the AGI failed to be replicated when using the entire study sample and when using a subsample of Christians. Consequently, an EFA of the 28-item AGI using the designated study sample will be conducted.

Exploratory Factor Analysis

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.924) and Bartlett's ($\chi^2(378) = 20190.601$, $p < .001$), Steiger's ($\chi^2(378) = 49341.659$, $p < .001$) and Jennrich's

($\chi^2(378) = 4082.034$, $p < .001$) tests indicated that the data were suitable for factor analysis. Factor retention methods using the EFA sample suggested the possibility of two-, four-, or five-factor solutions. The scree plot (see Figure C7), hull method (see Table C10; Figure C8), very simple structure criterion (see Table C10; Figure C9), acceleration factor, optimal coordinates, and parallel analysis suggested two factors (see Table C11; Figure C7); the MAP test (see Table C10) and comparison data method (see Figure C10) indicated four factors; and Kaiser's criterion (see Table C10) suggested five factors. One-, three-, and six-factor solutions were extracted to test the possibility of $k \pm 1$ factor models from the suggested solutions. Model retention criteria rejected the five- and six-factor solutions.

The unidimensional solution contained six items (2, 4R, 5, 7, 10, and 27) and was labeled *detached from God* (see Table C12). This model contained items that highlighted an individual's anger and jealousy resulting from their perception that God is acting in the lives of others more than in their own lives (5, 7, and 27). This perception is met with an individual's preference to not depend upon God in matters pertaining to their life (2, 4R, and 10).

The two-factor solution was equivalent across rotation methods with minor differences in factor loadings (see Table C13). The two factors were statistically orthogonal ($r = -.052$, $p < .05$ to $r = -.009$; *ns*). The first factor was labeled *divine dependence* because it conveyed an individual's emotional connection with God (8, 22, and 26) and desire to depend on God in matters pertaining to their life (2R, 4, 10R, 18, and 28). Two items (2R and 10R) were negatively associated with other items and were reverse-scored because they conveyed a sense of independence from God. The second factor was labeled *divine rejection* because it conveyed an individual's feelings of jealousy (5, 9, and 23) and anger (3, 19, and 27) toward God resulting

from their perception that God is acting in the lives of others and not their own. These sentiments were corroborated by an individual feeling rejected by God (7 and 17).

The CF-Facparsim and CF-Equamax rotations produced nearly equivalent three-factor solutions (see Table C14). Results from the other rotation methods were uninterpretable. The first factor was similar to the *divine rejection* factor identified in the two-factor solution but omitted items 9 ("I am jealous at how close some people are to God"), 23 ("I am jealous when others feel God's presence when I cannot"), and 17 ("I fear God does not accept me when I do wrong"). Nonetheless, the content of the retained items (3, 5, 7, 19, and 27) was consistent with the *divine rejection* label identified in the two-factor solution noted above. The second factor identified by the CF-Facparsim rotation (8R, 12, 16, and 26R) and was labeled *discomfort with emotional closeness.* This second factor was similar in content to the three-item factor identified by the CF-Equamax rotation. The third factor was labeled *relationship worry* (1, 11, 21, and 25) because the items related to an individual's preoccupation with damaging their relationship with God. Correlations were modest between *divine rejection* and *discomfort with emotional closeness* (r = .247 and .254, $p < .05$) and *divine rejection* and *relationship worry* (r = .231 and .258, $p < .05$). The relationship between *discomfort with emotional closeness* and *relationship worry* ($r = -.236$ and $-.273$, $p < .05$) was modest and negative.

The four-factor solutions were generally consistent in item content across rotations (see Table C15 and Table C16). The CF-Quartimax, Quartimin, and Geomin rotations produced similar factor solutions. The first factor was labeled *relationship worry* because it contained similar items from the three-factor solution. This factor contained items 1, 11, and 25 in all of the rotations except the CF-Facparsim model, which included item 17 ("I fear God does not accept me when I do wrong"). The second factor was equivalent across rotations and contained the

same items that corresponded to the *divine rejection* construct identified in the three-factor solution (3, 5, 7, 19, and 27). The third factor was similar in item content across rotations and was labeled *discomfort with emotional closeness*. The factors produced by the Geomin, CF-Quartimax, and Quartimin rotations were equivalent (2R, 4, 10R, 18, 20R, 22, and 28). The CF-Equamax solution omitted item 2 ("I just don't feel a deep need to be close to God"), and the CF-Facparsim rotation excluded item 22 ("Daily I discuss all of my problems and concerns with God"). The fourth factor contained the same four items that were found in the Geomin, CF-Quartimax, and Quartimin rotations (12, 14, 16, and 26R). The CF-Facparsim and CF-Equamax rotations added item 8R ("My experiences with God are very intimate and emotional"). Item content for this factor was consistent with the *divine dependence* construct identified in the two-factor solution. Correlation magnitudes between factors varied by rotation method, but the patterns between factors were consistent: *relationship worry* was positively and moderately correlated with *divine dependence* ($r = .190$, *ns* to .300, $p < .05$) and *divine rejection* ($r = .387$, $p < .05$ to .480, $p < .05$); *divine dependence* was moderately and negatively correlated with *discomfort with emotional closeness* ($r = -.552$, $p < .05$ to $-.402$, $p < .05$); *divine rejection* and *discomfort with emotional closeness* ($r = .180$, *ns* to .254, $p < .05$) were modestly and positively correlated. Correlations between *divine rejection* and *divine dependence* ($r = -.058$, $p < .05$ to $-.020$, *ns*) and between *relationship worry* and *discomfort with emotional closeness* ($r = -.055$, *ns* to .016, *ns*) were small and statistically orthogonal. Cross-validation of the one-, two-, three-, and four-factor models was conducted using the designated CFA sample, and acceptable fitting models were then tested using the entire study sample.

Confirmatory Factor Analysis

As outlined in Table C17, the one- and four-factor models were rejected due to unacceptable fit statistics. An initial analysis of the one-factor model revealed a poor fit. Low explained variance statistics were found in items 2 (r^2 = .473; "I just don't feel a deep need to be close to God"), 10 (r^2 = .375; "I prefer not to depend too much on God"), and 4R (r^2 = .191; "I am totally dependent upon God for everything in my life"). Model fit improved after eliminating items 4R and 10; however, the factor loading of item 2 (λ = .271) fell below acceptable limits and was significantly below that of other items (λ range .788–.908). It was decided to not remove further items as this action would leave the model just-identified and would make falsifiability testing impossible. Thus, the unidimensional model was rejected.

The four-factor models identified by the CF-Facparsim, CF-Equamax, and CF-Quartimax, Quartimin, and Geomin rotations all possessed poor initial fit statistics (see Table C17). These models did not improve after removing items with low explained variance. Since the model contained several reverse-scored items, the presence of a method factor was hypothesized. Models incorporating positive, negative, correlated, and uncorrelated method factors were specified; however, no model achieved satisfactory model fit. Based on these results, the four-factor model was rejected.

The three-factor CF-Facparsim and CF-Equamax models had poor initial fit (see Table C17). The CF-Facparsim model failed to achieve acceptable model fit after removing items with low explained variance. The CF-Equamax solution achieved acceptable model fit after eliminating items 3 ("If I can't see God working in my life, I get upset or angry"), 19 ("I often feel angry with God for not responding to me when I want"), and 21 ("I crave reassurance from God that God loves me"). Satisfactory model fit was achieved for the entire study sample.

Internal consistency estimates were acceptable for *divine rejection* (McDonald's ω = .860 [95% CI: .849–.871]), *emotional avoidance* (McDonald's ω = .629 [95% CI: .604–.653]), and *relationship worry* (McDonald's ω = .786 [95% CI: .771–.801]).

Tests of the two-factor model began by assessing the orthogonal relationship identified in the EFA solution. A model that allowed the two factors to correlate revealed a non-significant relationship (*r* = .032, *ns*). The model was respecified to constrain the factors to be uncorrelated, which produced mediocre fit (see Table C17). Acceptable model fit was achieved after removing several items with low explained variance (2R, 3, 8, 9, 10R, 17, 23, 26) in a stepwise manner (see Figure C11). Inspection of the standardized residual covariance's matrix did not indicate localized areas of ill fit. Model fit was assessed for the entire sample and was revealed to be excellent. Internal consistency of the *divine rejection* (McDonald's ω = .859 [95% CI: .849–.868]) and *divine dependence* (McDonald's ω = .853 [95% CI: .843–.862]) constructs were good (see Table C18).

According to fit statistics, the two- and three-factor models fell within acceptable limits. The two-factor model was preferred to the three-factor model based on better incremental and absolute measure fit indices and construct internal consistency estimates. The two-factor model was also preferred given that the factor structure closely resembled the orthogonal 2 × 2 attachment framework. The question of whether *divine rejection* and *divine dependence* represent attachment-related constructs or constructs from other perspectives will be addressed at a later point; however, the two-factor model was retained for further analysis.

Tests of Measurement Invariance

As displayed in Table C19, measurement invariance was tested based on participant gender (female and male), ethnicity (White/Caucasian and ethnic minority), and religious

affiliation (Christian and non-Christian). In each group comparison, participants with the latter characteristics (i.e., males, ethnic minorities, and non-Christians) were specified as the comparison group, and participants with the former characteristics (i.e., females, Caucasians, and Christians) were specified as the reference. Configural invariance was tested by fixing the factor variance to 1 and the factor mean to 0 in each group for identification such that all item factor loadings and thresholds could be estimated. Residual variances were all constrained to 1 in both groups. The data fit reasonably well for group comparisons based on gender and ethnicity. Group comparison based on religious affiliation was significantly above the RMSEA threshold of 0.50 (see Table C19). Independent CFA analyses showed the model fit better for Christian samples ($\chi^2(20) = 205.344$; RMSEA = .059 [90% CI: .052–.067]; CFI/TLI = .993/.990) than for non-Christian samples ($\chi^2(20) = 292.382$; RMSEA = .205 [90% CI: .184–.226]; CFI/TLI = .928/.899). These results suggest that the orthogonal 2 × 2 model is more appropriate for Christian respondents than for non-Christian respondents. Further invariance testing was not justified based on religious identity; however, metric invariance was justified for gender and ethnicity.

The metric invariance model did not fit significantly worse than the configural invariance model. An examination of the ΔRMSEA, ΔCFI, ΔMNCI, and $\Delta\hat{\gamma}$ fell within recommended guidelines based on gender and ethnicity (see Table C19). The observation that metric invariance held indicated that the same latent factor was being measured in each group. Given the support for metric invariance, scalar invariance was tested, and the changes in the ΔRMSEA, ΔCFI, ΔMNCI, and $\Delta\hat{\gamma}$ provided empirical support for scalar invariance for gender and ethnicity.

Overall, the results suggest that the orthogonal *divine dependence* and *divine rejection* model is sufficiently invariant based on gender and ethnic identity characteristics. The model is

not, however, suitable for non-Christian populations and suggests that these individuals are likely to have an alternative framework that characterizes their relationship with deity based on the two retained constructs. The remaining analyses were conducted using only participants who identified as Christian. Internal consistency of the two factors was reassessed for Christian participants and was found to be comparable to the sample that included non-Christians for *divine rejection* (McDonald's ω = .838 [95% CI: .827–.849]) and *divine dependence* (McDonald's ω = .862 [95% CI: .852–.872]).

Placing the Model With the Nomological Framework With the Psychology of Religion and Spirituality

With a satisfactory invariant model, the relationship of the *divine rejection* and *divine dependence* constructs with the other measures administered as part of this study was assessed by examining the correlation coefficients of the standardized factor scores. In order to achieve this goal, concomitant psychometric investigations of each measure were performed, and the reader is referred to Appendix B for a detailed discussion of each measure and psychometric results. The Pearson's product moment (r_{xy}) and disattenuated correlations (r_{pc}) of the *divine rejection* and *divine dependence* constructs, along with the other measures and constructs included in this study, are presented in Table C20. Given that the two-factor model was ill-suited for non-Christians, only the responses of Christian participants were assessed (n = 2,656). For brevity, only the relationship of the *divine rejection* and *divine dependence* constructs with the other measures will be discussed.

The *divine rejection* construct possessed moderate negative relationships with intrapsychic constructs such as self-esteem (RSES; $r_{xy} = -.434$ $r_{pc} = -.577$), a sense of life purpose and meaning (SS: *self-discovery*; $r_{xy} = -.362$, $r_{pc} = -.577$), and interpersonal loneliness

and isolation (FS; r_{xy} = −.316, −.434). These constructs were associated with an individual's self-evaluation and suggest that the *divine rejection* construct is a measure of an individual's intrinsic self-worth, satisfaction with life, and personal relationships. This connection may explain why *divine rejection* was more closely associated with depressive (PHQ-9; r_{xy} = .322, r_{pc} = .376) than generalized anxiety symptoms (GAD-7; r_{xy} = .262, r_{pc} = .300). The attachment-related constructs *concern with closeness* (ECR-S; r_{xy} = .301, r_{pc} = .352), *comfort with closeness* (ECR-S; r_{xy} = .250, r_{pc} =.302), and *dependence/disclosure* (ECR-S; r_{xy} = −.135, r_{pc} = −.158) had weak relationships with the *divine rejection* construct and may indicate that this construct is more associated with individual than romantic partner attachment concerns. Alternatively, it is possible that these individuals are not in a romantic relationship, as suggested by low FS scores.

Curiously, *divine rejection* had weak relationships with all of the constructs from the psychology of religion and spirituality. Most notably, the higher-order construct of Brief Multidimensional Measure of Religion and Spirituality (BMMRS), labeled *personal spiritual/religious beliefs and practices* (r_{xy} = −.212, r_{pc} = −.254), had a weak and negative relationship with *divine rejection*. This finding was consistent with the BMMRS's first-order factors that assessed an individual's beliefs about forgiving (BMMRS: *Forgiveness*; r_{xy} = −.248, r_{pc} = −.302), intrinsic spirituality (BMMRS: *Personal Spirituality;* r_{xy} = −.211, r_{pc} = −.269), desire to include God in one's life (BMMRS: *Experiential Comforting Faith*; r_{xy} = −.210, r_{pc} = −.245), and personal religious practices (BMMRS: *Private Religious Practice*; r_{xy} = −.079, r_{pc} = −.092). Weak relationships were also found with the Intrinsic Spirituality Scale (ISS; r_{xy} = −.166, r_{pc} = −.184); aspects of religious doubting and questioning (QS; r_{xy} = .215, r_{pc} = .282), accepting spiritual matters (TCI-ST: *Spiritual Acceptance*; r_{xy} = −.172, r_{pc} = −.211), and the integration of spiritual and religious beliefs (INSPIRIT: *Spiritual–Religious Connection*; r_{xy} = −.229, r_{pc} =

−.277) and practices into one's life (SS: *Spiritual Beliefs and Practices*; r_{xy} = −.243, r_{pc} = −.282). *Divine rejection* was minimally associated with an individual's self-consciousness (TCI-ST: *Self-forgetfulness vs. Self-consciousness*; r_{xy} = .167, r_{pc} = .208) and sense of connection with the world around them (TCI-ST: *Transpersonal Identification*; r_{xy} = −.085, r_{pc} = −.110) and with nature (SS: *Eco-awareness*; r_{xy} = −.187, r_{pc} = −.231).

In contrast, *divine dependence* was strongly associated with constructs from the psychology of religion and spirituality. The higher-order factor of the Brief Multidimensional Measure of Religion and Spirituality (BMMRS), labeled *personal spiritual/religious beliefs and practices* (r_{xy} = .717, r_{pc} = .857), was strongest. All of the BMMRS first-order factors were strongly correlated with *divine dependence*, which included those that assessed an individual's desire to include God in one's life (BMMRS: *Experiential Comforting Faith*; r_{xy} = .718, r_{pc} = .836), intrinsic spirituality (BMMRS: *Personal Spirituality;* r_{xy} = .674, r_{pc} = .857), beliefs about forgiving others (BMMRS: *Forgiveness*; r_{xy} = .632, r_{pc} = .769), and personal religious practices (BMMRS: *Private Religious Practice*; r_{xy} =.616, r_{pc} = .718). Moderate correlations with other spiritual and religious constructs included the Intrinsic Spirituality Scale (r_{xy} = .699, r_{pc} = .772) and accepting spiritual matters (TCI-ST: *Spiritual Acceptance*; r_{xy} = .517, r_{pc} = .632). A similar pattern was found in constructs that assessed the integration of spiritual and religious beliefs (INSPIRIT: *Spiritual-Religious Connection*; r_{xy} = .609, r_{pc} = .736) and practices into one's life (SS: *Spiritual Beliefs and Practices*; r_{xy} = .537, r_{pc} = .621). The strong correlations between spiritual and religious beliefs and practices with the *divine dependence* construct are likely the reason that correlations with religious doubting and questioning were weak (QS; r_{xy} = −.182, r_{pc} = −.238).

Divine dependence was also associated with higher levels of self-exploration (SS: *Self-discovery*; r_{xy} = .315, r_{pc} = .377) and a positive perspective on one's life experiences (INSPIRIT: *Positive Emotional Experiences*; r_{xy} = .457, r_{pc} = .527). Interestingly, *divine dependence* had little relationship with negative aspects on an individual's life, such as depression (PHQ-9; r_{xy} = −.092, r_{pc} = −.107), generalized anxiety (GAD-7; r_{xy} = −.058, r_{pc} = −.067), interpersonal loneliness (FS; r_{xy} = .081, r_{pc} = .112), and self-esteem (RSES; r_{xy} = .115, r_{pc} = .153). Weak correlations were also observed with an individual's level of self-consciousness (TCI-ST: *Self-forgetfulness vs. Self-consciousness*; r_{xy} = −.039, r_{pc} = −.049) and sense of connection with the world around them (TCI-ST: *Transpersonal Identification*; r_{xy} = −.156, r_{pc} = .201) and with nature (SS: *Eco-awareness*; r_{xy} = .057, r_{pc} = .070). This pattern was consistent with attachment-related constructs that assessed an individual's anxiety about being in a relationship (ECR-S: *Concern with Closeness*; r_{xy} = −.045, r_{pc} = −.053) as well as their desire to get close to (ECR-S: *Comfort with Closeness*; r_{xy} = −.029, r_{pc} = −.035) and depend upon their partners (ECR-S: *Dependence/Disclosure*; r_{xy} = .069, r_{pc} = .081).

Overall, *divine rejection* can be defined as an individual's comparative evaluation of how attentive and involved God is in their life vis-à-vis the lives of others. Individuals who perceive God as more attentive and involved in the lives of others appear to experience sentiments of anger and jealousy. Put differently, *divine rejection* could also be termed "god-envy" or "divine entitlement" because the construct's items compare an individual's perception of God's relationship with others to the individual's perception of their own relationship—or perceived lack of relationship—with deity. Examples include the following: "I am jealous at how God seems to care *more for others than for me*" (item 5), "I get upset when I feel God *helps others, but forgets about me*" (item 27), and "Sometimes I feel that God *loves others more than me*"

(item 7; emphasis added). The fourth item (item 19; "I often feel angry with God for not responding to me when I want") contains a sense of discontent, if not resentment, that deity is perceived to not be as responsive as an individual desires. In contrast, the *divine dependence* construct can be defined as an individual's belief that involving deity in personal matters is important for day-to-day living. It comes as no surprise, then, that the desire to depend upon God is closely associated with one's self-reported levels of religiosity and spirituality.

Lastly, the relationship between the two retained factors from this analysis and the two original AGI factors was also assessed. The *divine dependence* construct was found to be the statistical inverse equivalent of the original *avoidance of intimacy* construct ($r_{xy} = -.857$, $p < .01$; $r_{pc} = -.994$, $p < .001$). Similarly, *divine rejection* was found to be statistically equivalent to the *anxiety over abandonment* construct ($r_{xy} = .822$, $p < .001$; $r_{pc} = .948$, $p < .001$). The equivalence of constructs between the respective forms of the AGI is encouraging, particularly given that the model retained in this analysis contains only eight (28.57%) of the 28 original AGI items and measures statistically identical constructs. The retained model is also preferred given that it was found to possess satisfactory model fit and was invariant based on gender and ethnic identity. However, what remains unclear is how the item responses and factor scores of the retained model correspond to the four previously discussed attachment styles.

Latent Profile Analysis

Latent profile analysis (LPA) of the Christian sample ($n = 2{,}656$) indicated that the five-class solution was statistically the best-fitting model. As revealed in Table C21, the VLMR-LRT and LMA-LRT achieved non-significance at six classes, indicating that the optimal solution was five classes. The BLRT did not achieve a non-significant value when seven to 10 classes were estimated. This study did not specify more elaborate models because the proportion of class

membership in models with classes greater than six was less than 1%. An examination of the four BIC indices showed only very minor differences between the five- and six-class models. This evidence was further substantiated by the statistically significant log likelihood difference between the five-class and the more complex six-class solution ($\chi^2(3) = 41.133$, $p < .001$). Overall, the five-class solution was optimal for identifying a parsimonious, statistically viable, and substantively interpretable latent profile solution.

The conceptual fit of the latent profile models was examined by plotting the mean values of the *divine rejection* and *divine dependence* values for each of the latent classes (see Table C22, Figure C12). The five-class solution comprised an *independent believer* class (6.40%, N = 170), an *intrinsic believer* class (21.61%, N = 574), an *everyday believer* class (45.97%, N = 1,221), a *strained believer* class (20.78%, N = 552), and a *detached believer* class (5.23%, N = 139).

As described in Table C22 and depicted in Figure C12, the mean *divine dependence* scores of the *strained believer* ($\mu = -.134$, $\sigma = .775$), *everyday believer* ($\mu = -.034$, $\sigma = .775$), *detached believer* ($\mu = -.052$, $\sigma = .775$), and *intrinsic believer* ($\mu = .064$, $\sigma = .775$) classes were statistically equivalent ($F(3, 2513) = 422.484$, $p < .001$). These classes were distinguished from one another based on the mean *divine rejection* scores with the *detached believer* class ($\mu = 1.864$, $\sigma = .339$) indicating the highest mean score, followed by the *strained believer* ($\mu = .923$ $\sigma = .339$), *everyday believer* ($\mu = .038$, $\sigma = .339$), and *intrinsic believer* ($\mu = -1.024$, $\sigma = .339$) classes. The *independent believer* class possessed the lowest mean *divine dependence* scores ($\mu = -1.403$, $\sigma = .775$) and had *divine rejection* ($\mu = -1.034$, $\sigma = .339$) scores that were comparable to those of the *intrinsic believer* class.

As displayed in Figure C13, a scatterplot representation of participants revealed that membership was a predominant function of *divine rejection* and visually appeared as four vertical strata or bands. These strata revealed that the *intrinsic believer* and *independent believer* classes had the lowest levels of *divine rejection,* followed by the *everyday believer*, *strained believer*, and *detached* classes. In all, these five classes represent a continuum of varying degrees of *divine rejection* with a distinguishable, conceptually interpretable, sufficiently parsimonious, and statistically acceptable class solution that is representative of the orthogonal two-factor model derived from this psychometric analysis of the AGI.

Predicting Class Membership

Using *SPSS 26* (International Business Machines, 2019), multinomial logistic regression was performed to model the relationship between the additional constructs used in this study as predictors of class membership while accounting for differences in gender (i.e., female versus male). The *everyday believer* class was specified as the reference category based on the assumption that, because of this class's relative centrality to the intersection of *divine rejection* and *divine dependence* constructs, this class was more normative than other classes in the model (see Figure C13). An independent binary logistic regression of the predictors for the *everyday believer* class was conducted. The model was statistically significant ($\chi^2(21) = 48.477$, $p < .01$; $R^2 = .019$ [Cox & Snell], .025 [Nagelkerke]) and correctly classified 56.2% of individuals. The probability of membership in the *everyday believer* class increased when individuals indicated higher levels of private religious practice (BMMRS: *Private Religious Practice*; OR = 1.340), positive social relationships (FS; OR = 1.342), and sense of life purpose and meaning (TCI-ST: *Transpersonal Identification*; OR = 1.156).

The standardized factors scores of all first-order constructs previously assessed were included in the multinomial logistic regression. The data fit the model reasonably well ($\chi^2(116) = 1481.929$, $p < .001$; $R^2 = .439$ [Cox & Snell], .471 [Nagelkerke]), and the results of each predictor for the four assessed classes are presented in Table C23 through Table C26. Considering only the base rates of group membership, incorporating all of the first-order factors into analysis yielded 53.99% correct classification. Predictions of membership of the *everyday believer* class were the most accurate (79.11%), followed by predictions of membership of the *intrinsic believer* (45.09%) and *independent believer* classes (32.92%). Predictions of membership of the *strained believer* (23.87%) and *detached believer* (13.87%) classes, using all of the variables, were least accurate.

For both males and females, the probability of membership in the *intrinsic believer* class (see Table C23) increased when they indicated higher levels of intrinsic spirituality (ISS) and desire to involve deity in matters of their lives (BMMRS: *Experiential Comforting Faith*). Surprisingly, these individuals indicated lower levels of private religious practice (BMMRS: *Private Religious Practice*). Males who endorsed higher levels of spiritual connection (INSPIRIT: *Spiritual-Religious Connection*) and religious connection (SS: *Spiritual Beliefs and Practices*) while simultaneously endorsing lower levels of religious questioning (QS) tended to be assigned to the *intrinsic believer* class. Males and females in this class endorsed lower levels of anxiety about getting close to others (ECR-S: *Concerns with Closeness*), a pattern which may be related to the relatively high levels of self-esteem (RSES) that were significant for males but not for females.

The *independent believer* class (see Table C24) occupied the same vertical strata as the *intrinsic believer* class; however, the former group had statistically significant lower *divine*

dependence scores when compared to the later ($t(742) = 38.465$, $p < .001$). The distinction between the two classes appeared to be most attributable to a lower endorsement of personal religiosity (BMMRS: *Private Religious Practice*) and significantly high levels of self-esteem (RSES). The probability of membership in this class increased for females who endorsed higher levels of life meaning and purpose (SS: *Self-Awareness*) while simultaneously endorsing lower levels of feeling connected to the world around them (TCI-ST: *Transpersonal Identification*). Males, on the other hand, endorsed high levels of spirituality and religiosity (INSPIRIT: *Spiritual-Religious Connection*) while indicating lower levels of intrinsic spirituality (ISS) and significantly lower levels of private religious practice (BMMRS: *Private Religious Practice*).

The *strained believer* (see Table C25) and *detached believer* (see Table C26) classes are positioned to the right of the *everyday believer* class, which was indicative of higher levels of *divine rejection*. Curiously, the predictors of these classes were largely associated with social relationships and self-esteem rather than with spiritual and religious constructs. The probability of membership in the *strained believer* class increased for males and females who endorsed lower levels of self-esteem (RSES) and greater levels of relationship anxiety (ECR-S: *Comfort with Closeness*). Males who also endorsed higher religious doubts and questioning (QS) had a higher probability of being assigned to this class.

Membership of the *detached believer* class was marked by male and females who endorsed significantly higher levels of religious doubts and questioning (QS), social isolation (FS), relationship anxiety (ECR-S: *Concern with Closeness*), and disconnection from the world around them (TCI-ST: *Transpersonal Identification*). Males who endorsed higher levels of generalized anxiety (GAD-7) and lower levels of self-esteem (RSES) also had a higher probability of membership in this class. For females, higher levels of relationship anxiety (ECR-

S: *Comfort with Closeness*) and self-consciousness (TCI-ST: *Self-forgetfulness vs. Self-consciousness*) increased the likelihood of being assigned to this class.

In sum, the strata model of class membership identified by LPA was found to be primarily a function of varying degrees of *divine rejection*. The interpretive utility of this model within the attachment to God framework will be discussed later; however, it is important to state that class membership was found to be most related to an individual's self-perception and religious beliefs and practices rather than to their self-reported level of *divine dependence*. With the exception of the *intrinsic believer* and *independent believer* classes, which occupied the lowest levels of *divine rejection* in the model presented herein, it appears that the degree to which an individual perceives themselves positively or negatively has more to do with their relationship with deity than their self-reported level of *divine dependence*. Indeed, this model clearly illustrates that individuals who are ± 1.00 from the standard deviation of the *divine dependence* mean could be equally assigned to any one of the five classes. This finding would suggest, then, that an individual's comparative evaluation of how they see God acting in their life vis-à-vis others is more associated with how the individual perceives their relationship with deity than spiritual and religious beliefs and practices might suggest.

Discussion

The purpose of this study was to conduct a psychometric evaluation of the AGI. This evaluation aimed to test the structural validity of the model published by Beck and McDonald (2004) by using a large sample of religiously heterogeneous and socioeconomically diverse young adults commonly referred to as millennials. Confirmatory factor analytic (CFA) results suggested that the two-factor, 28-item AGI models poorly fit respondent data. Alternative specifications that accounted for method factors, higher-order factors, and bi-factor models did

not improve model fit. With no empirical support for the AGI model, the data were submitted to an exploratory factor analysis (EFA) that followed current recommended practices, which suggested one-, two-, three-, and four-factor solutions. These models were tested within a CFA framework whereupon empirical support was found for an orthogonal, two-factor, eight-item model that possessed satisfactory model fit ($\chi^2(20) = 172.186$; RMSEA = .051 [95% CI: .044–.058]; CFI/TLI = .995/.993]. Measurement invariance of the revised AGI model supported configural, metric, and scalar invariance for individuals when gender and ethnic identity were taken into account. Invariance failed for individuals who did not identify as Christian. The two constructs of this model, labeled *divine rejection* (McDonald's ω = .838 [95% CI: .827–.849]) and *divine dependence* (McDonald's ω = .862 [95% CI: .852–.872]), were found to be statistically equivalent to the original *anxiety over abandonment* ($r_{xy} = .822$, $p < .001$; $r_{pc} = .948$, $p < .001$) and *avoidance of intimacy* ($r_{xy} = -.857$, $p < .01$; $r_{pc} = -.994$, $p < .001$) constructs, respectively.

When compared to other psychological constructs, *divine rejection* was found to be associated with lower levels of intrapersonal psychological constructs—such as self-esteem and finding meaning and purpose in life—and higher levels of interpersonal loneliness. Consequently, this factor was defined as an individual's comparative evaluation of how attentive and involved God is in their life vis-à-vis the lives of others. In contrast, the *divine dependence* construct was found to be closely associated with one's self-reported levels of religiosity and spirituality.

Despite concordance between the AGI and the orthogonal two-factor model identified in this study, the unidimensional nature of the retained model would make it inconsistent with attachment theory. Moreover, by reducing an individual's relationship with deity to one's level

of religiosity and spirituality (i.e., *divine dependence*) and comparative evaluation of how an individual perceives deity in their life vis-à-vis the lives of others (i.e., *divine rejection*), this model also appears to be inconsistent with how religious individuals conceptualize their relationship with deity (for substantive critiques of attachment to God theory, the reader is referred to Miner, 2007; Wulff, 2006; Noller, 1992).

The emergence of the *divine rejection* construct as being largely distinct from other constructs within the psychology of religion and spirituality does warrant considerable discussion, particularly considering the five-class solution identified by LPA, which was found to be primarily a function of this construct. Graphically, the five classes were seen as a gradient, or strata, based upon the *divine rejection* construct with the *intrinsic believer* and *independent believer* classes indicating lower levels while the *strained* and *detached believer* classes indicated the highest levels of *divine rejection*. The *everyday believer* class was interpreted as normative given the centrality of respondent scores for both the *divine dependence* and *divine rejection* constructs. Given that the four strata of "believers" were found to be primarily a function of the *divine rejection* construct, this model is at odds with the general four-attachment-style framework. Indeed, the presence of a large group that occupies the center of the model would seem to obfuscate the categorizations imposed by the 2 × 2 attachment model that has been applied in previous research on attachment to God.

With a model that is seemingly distinct from attachment theory, a question arises regarding what this framework assesses. To answer this question, it is important to return to the two predominant hypotheses of research on attachment to God—that is, the correspondence and compensation hypotheses. The correspondence hypothesis states that an individual's relationship with deity is strongly associated with the type and quality of their other attachment relationships,

and the compensation hypothesis argues that one's relationship with God makes up for other inadequate attachment relationships. Whether an individual is considered securely or insecurely attached, then, largely determines whether an individual views their relationship with God as corresponding to, or compensating for, other relationships. However, based on the item content of the *divine rejection* construct, an entirely new hypothesis is suggested based on social comparison theory (Festinger, 1954).

The reader may recall that the *divine rejection* construct contained four items, three of which had an embedded comparative self-evaluation component. These items—"I am jealous at how God seems to *care more for others than for me*" (5), "Sometimes I feel that God *loves others more than me*" (7), and "I get upset when I feel God *helps others, but forgets about me*" (27)—are clearly subjective comparisons based on others who are presumed to be similar (see Goethals & Darley, 1997). Self-evaluation is hypothesized as one of the principal roles of social comparison theory (Thorton & Arrowood, 1966), whose function has been elaborated to include either an *upward* or *downward* comparison (Wills, 1981). Considering the *everyday believer* class, whose central position compared to the other classes is correctly viewed as normative, the *intrinsic believer* and *independent believer* classes could be construed to have a downward comparison to other groups—that is, the other classes are comparatively "worse off." Conversely, the *strained believer* and *detached believer* classes can be seen as making an upward comparison to the other groups whereby these classes judge others to be "better off" (see Wills, 1981). Studies investigating the effects of upward and downward comparisons have found that these comparisons affect self-esteem (Tesser et al., 1988; Gibbons, 1986). This effect was observed in the analysis of predictors of class membership in which the *intrinsic believer* and *independent believer* classes (i.e., those who exhibit downward comparison) reported higher

levels of self-esteem, and the *strained believer* and *detached believer* classes (i.e., those who exhibit upward comparison) reported lower levels of self-esteem.

The conditions under which such a social comparison occurs is worthy of further scholarly investigation; however, several hypotheses that follow social comparison theory are suggested. First, it is possible that individuals compare themselves to others based on their direct and indirect social relationships. Examples of direct relationships would include family members (e.g., parents, siblings) and personal friends who presumably share the same religious background as the individual, and indirect social relationships might include congregational acquaintances. This social/relational barometer in the context of one's religious group may serve as the impetus from which an individual may judge themselves as "better" or "worse off" than others. Second, an individual may compare themselves to a particular standard that is real, imagined, or self-imposed or compare themselves as a result of external pressure (e.g., familial or congregational pressure). Regardless of its source, this type of socio-religion comparison is consistent with the "keeping up with the Joneses" phenomenon widely studied in social psychology (e.g., Harris et al., 2008; Guven & Sørensen, 2012). Lastly, it is possible that incidents of social comparison could also occur through internet and social media websites. Given that this study relied upon the responses of millennials, who are considered to be the most technologically savvy and interconnected generation, it is very possible that individuals may produce or consume social media content that contributes to upward or downward social comparison.

In conclusion, this study contributes to the field by offering a psychometrically tested measure based on items of the AGI. This two-factor, eight-item measure possesses satisfactory model fit, acceptable internal consistency, and measurement invariance based on gender and

ethnic identity. The two orthogonal factors, labeled *divine rejection* and *divine dependence*, were found to be statistically equivalent to the original *anxiety over abandonment* and *avoidance of intimacy* constructs of the AGI, respectively. However, it is argued that the resulting model is inconsistent with attachment theory, and social comparison theory is suggested as a possible alternative framework. This is not to say that attachment to God theory is without merit within the psychology of religion and spirituality; however, strong evidence suggests that the model of the AGI may be best conceptualized through an alternative theoretical lens.

Recommendations for Future Research

To this end, researchers are strongly encouraged to build upon the findings of this study to further elucidate and elaborate upon the model proposed herein. Future researchers may consider examining the item content and operationalization of the proposed model to find theoretical and conceptual similarities and differences with existing theories. It is entirely plausible that *divine dependence* and *divine rejection* are conceptually equivalent to constructs from a different theoretical model. This study found strong evidence to support the notion that *divine dependence* is analogous to an individual's self-reported levels of spirituality and religiosity; however, the psychological correlates of *divine rejection* remain unclear. Researchers may also benefit from further exploring social comparison theory within the psychology of religion and spirituality as it relates to how individuals compare how deity attends to them versus how deity attends to others. Similarly, researchers of the psychology of religion and spirituality may be served by elaborating on the religion-as-attachment model and attachment to God theory for faiths other than Christianity (e.g., Miner et al., 2014). Future researchers are also encouraged to investigate the individual qualities and characteristics of the five classes identified in this study. Additionally, given that the overall predictive utility of the model is only slightly better

than chance, future research should consider testing the generalizability of the five classes to other populations as well as exploring individual characteristics that might better explain the model.

Limitations

Although this study took great care to be thorough in its analysis, it is beset by several limitations worth noting. This study dramatically departed from the framework of attachment to God theory after evidence for the AGI model was not supported. By doing so, this study proposed an alternative framework to conceptualize attachment to God theory in non-attachment-related terms. The unfortunate limitation of doing so is that the proposed model is a hybrid that is not securely grounded in an existing theory found in the psychology of religion and spirituality. The abductive method employed to give meaning to the constructs and classes identified herein must find its way into an existing theoretical framework. A second limitation of this study is that the proposed framework was constrained at the outset by the 28 items of the AGI. It is entirely plausible that additional items and theoretical constructs could compliment, if not further enhance, the model proposed herein.

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APPENDIX A

Literature Review

Attachment Theory Overview

Based upon the pioneering work of John Bowlby (1969, 1982, 1973) and Mary Ainsworth (1985), attachment theory has become a prominent research paradigm across nearly all psychology disciplines (see Cassidy & Shaver, 2008; Mikulincer & Shaver, 2007; Johnson & Whiffen, 2003). Drawing upon concepts from ethnology, cybernetics, information processing, developmental psychology, and psychoanalysis, Bowlby (1969, 1982) described the attachment system as a product of evolution, designed by natural selection to maintain proximity between individuals out of the need for survival over the human life course (Ainsworth, 1989; Bowlby, 1980; Rothbard & Shaver, 1994; Cassidy, 2008).

Embedded within the attachment system is the attachment relationship, whose primary purpose is to provide safety and security between offspring and progenitor or between members of the same social group (see Cortina & Liotti, 2010). The attachment system is said to be activated when an individual (e.g., a child) senses natural clues to danger, which can have either external (e.g., physical separation, a perceived threat) or internal (e.g., fear, illness, pain) sources. Once activated, the attachment system's goal is to moderate the proximity between the attached person and the attachment figure in relation to the former's desired level of proximity. When the attached person perceives evidence of safety, the attachment system deactivates.

The ability to activate and deactivate the attachment system serves two primary functions for the attached person. First, because the attached person views the attachment figure as stronger and wiser (Ainsworth, 1989; Cassidy, 2008), the attachment figure engenders the possibility of a felt sense of security (Sroufe & Waters, 1977) by serving as a haven of safety

during times of distress and as a secure base from which the attached person can explore their environment. Second, as a consequence of this perception of safety and security, the attached person will often resist separation from the attachment figure and may experience anxiety, grief, or mourning when involuntarily separated from the attachment figure.

Hazan and Shaver (1987) first theorized the extension of attachment theory into adult relationships. Building upon the framework of infant–caregiver attachment relationships, these scholars presented preliminary evidence that adults exhibit similar attachment needs with their romantic partners as children do with caregivers. Since this initial conceptualization, adult attachment theory has spawned a robust field of research encompassing nearly every aspect of adult relationships (for reviews, see Cassidy & Shaver, 2008; Mikulincer & Shaver, 2007; Johnson & Whiffen, 2003).

Religion and Spirituality as Attachment

Within the milieu of extending attachment theory from the infant–caregiver relationship to romantic adult relationships, Kirkpatrick and Shaver (1992) proposed its extension into the psychology of religion and spirituality. These scholars suggest that the relationship between an individual and their religious beliefs, practices, behaviors, and affiliation are analogous to other attachment relationships that can be meaningfully interpreted in terms of attachment dynamics (see also Granqvist & Kirkpatrick, 2008). Accordingly, religion and spirituality were conceptualized through an attachment lens in that an individual's perceived relationship with God is central to religious belief and experience, the emotional bond experienced in this relationship is a form of love akin to infant–caregiver attachment bonds, and images of God tend to parallel the characteristics of sensitive attachment figures (Granqvist & Kirkpatrick, 2008). These scholars further argue that the relationship between a religious believer and deity is

analogous to the adult attachment relationship. Intuitively, it is not difficult to see how attachment theory can be a useful framework to conceptualize an individual's relationship with God. Religious believers are encouraged to develop a personal relationship with deity that is characterized by a centrality of love, which is reflective of parental and partner attachment relationships. Additionally, studies of the descriptions religious believers ascribe to deity reflect attributes that are simultaneously paternal and maternal (Spilka et al., 1964; Rizzuto, 1974; see also Dayringer & Oler, 2005). For these scholars, God (and other divine figures) function as "symbolic attachment figures to whom believers actively strive to obtain or maintain a sense of being connected" (Granqvist & Kirkpatrick, 2013, p. 141).

In broad terms, this theory suggests the attachment system is fundamentally involved in a religious person's thinking, believing, and reasoning about God and their relationship, which also informs their religious cognitions, affect, and behaviors (Kirkpatrick, 1999; see also Granqvist, 2002; Granqvist & Kirkpatrick, 2008). Based on an exhaustive review of the literature, attachment to God theorists have argued that the perceived relationship between religious believers and deity meet the established criteria for attachment relationships, which include seeking and maintaining proximity to God, seeing God as a safe haven, seeing God as a secure base, responding to separation and loss, and perceiving God as stronger and wiser (for an exhaustive review see Granqvist & Kirkpatrick, 2008; see also Kirkpatrick, 1999, 2005; Granqvist & Kirkpatrick, 2013; Granqvist et al., 2010; Kimball et al., 2013). Each of the five attachment criteria will now be discussed in detail.

Seeking and Maintaining Proximity to God

Proximity maintenance between an individual and an attachment figure is an essential biological function of the attachment system (Bowlby, 1969, 1982). Most theistic traditions

describe God as being omnipresent and simultaneously accessible through prayer and worship to foster a closeness to deity. According to Kirkpatrick (2005), prayer and worship can be performed individually, with close loved ones, or as part of a broader religious community where patterns of religious behavior and observance are designed to evoke a felt sense of God's presence and closeness. These practices and behaviors can be observed within dedicated places of worship or in one's private home, both of which frequently feature symbolic imagery, such as artwork, jewelry, and statues that serve to remind believers of God's closeness (Granqvist & Kirkpatrick, 2008).

God as a Safe Haven

Bowlby (1969, 1982) described three situations that activate the attachment system in which the attachment figure serves as a haven of safety. These situations include frightening or alarming environmental events; illness, injury, or fatigue; and separation or threat of separation from attachment figures. Interestingly, these criteria resemble the list of potential reasons people seek God. As cited by Hood et al. (2009), these times include "illness, disability, and other negative life events that cause both mental and physical distress; the anticipated or actual death of friends and relatives; and dealing with an adverse life situation" (pp. 386–387). Individuals have described God as a safe haven when distressed (i.e., religious coping) and a source of strength and safety (i.e., put oneself in "God's hands"), and they turn to God when faced with threats and loss (Kimball et al., 2013). Individuals in the wake of sudden religious conversion have also reported viewing God as a safe haven (Kirkpatrick, 1997; Granqvist & Kirkpatrick, 2004).

God as a Secure Base

A secure base provides individuals the opportunity to explore their environment safely (Bowlby, 1973). Bowlby described the psychological effects of a secure base as follows:

> When an individual is confident that an attachment figure will be available to him whenever he desires it, that person will be much less prone to either intense or chronic fear than will an individual who for any reason has no such confidence. (p. 202)

By most definitions, God is considered to be omniscient, omnipotent, and omnipresent. It is easy to see how religious believers would see God as the most secure of secure bases, if not the "ultimate attachment figure" (Cicirelli, 2004, p. 373). Individuals who view God as a secure base have reported a sense of personal competence and control; active, flexible approaches to problem-solving; and hope, optimism, and confidence about the future (Kimball et al., 2013).

Response to Separation and Loss

Building upon Bowlby's (1969, 1982) initial work, Mary Ainsworth (1985) suggested that the threat of separation from attachment figures causes anxiety in the attached person and that the loss of the attachment figure causes grief. Separation from God can take many forms. Overt and formal actions, such as de-conversion, disaffiliation, apostasy, or excommunication (Streib & Klein, 2013; Exline et al., 2011) would separate an individual from God, but the severity of the loss may not be as generalizable as adult attachment theory may suggest. Transgression or disobedience to one's religious or moral code could also cause a felt separation experienced by anxiety, guilt, or shame (Exline & Rose, 2005). Lastly, the seeming inability to experience a previously felt and much-desired communion with God, often referred to as a "wilderness experience" or as the "dark night of the soul" (St. John of the Cross, ca. 1577/1990), may also be experienced with a significant sense of loss. From a soteriological perspective (i.e., a

view based on the nature and means of salvation), the potential for real separation from God is usually seen by believers to come in the hereafter, at which time one spends eternity either with or separated from God. In most Christian belief systems, separation from God is seen as the very essence of hell; thus, at the end of one's life, this possibility may become a reality (Cicirelli, 2004).

Perceiving God as Stronger and Wiser

Bowlby (1969, 1982) also stated that children implicitly regard attachment figures as stronger and wiser than themselves (see also Cassidy, 2008). Since believers view God as being omnipotent and omniscient, it is reasonable to assume religious believers perceive God as both stronger and wiser, if not infinitely so.

Functional Attributions of the Attachment to God Relationship

Identifying the attitudes, beliefs, and behaviors an individual experiences with God has been deemed the most important and interesting question in the research on attachment to God (cf. Beck & McDonald, 2004; Cicirelli, 2010; Sim & Loh, 2003; Kelley, 2009; Kirkpatrick, 2005). The attachment relationship between a religious believer and God has been theorized to serve one of two competing functions. Namely, one's relationship with God is generalizable to either correspond to or compensate for other relationships in an individual's life (see Granqvist & Hagekull, 2001; Granqvist & Kirkpatrick, 2008; Kirkpatrick, 1998, 1999, 2005; Kirkpatrick & Shaver, 1990). Relevant to these hypotheses is the assumption that early childhood attachment patterns affect an individual's later view of their relationship with God. These two hypotheses will now be discussed in detail.

Social Correspondence Hypothesis

Initially, the correspondence hypothesis suggested that individual differences in religious beliefs, and by extension, one's experience and relationship with God, corresponded to individual differences in the internal working models, attachment patterns, and individual experiences with others, particularly with one's parents (Kirkpatrick & Shaver, 1992; see also Granqvist & Hagekull, 2001). This hypothesis is analogous to Bowlby's (1969, 1982) internal working model hypothesis which states that attachment patterns are enduring partly because of the way an individual sees themselves and others. This mentalization process then guides an individual's behavioral, emotional, and cognitive responses in social interactions over the lifespan (Brokaw & Edwards, 1994; Hall & Brokaw, 1995; Hall et al., 1998).

Hall et al. (2009) asserted the mechanism for this correspondence could be understood by recognizing that all relational experiences are a type of implicit relational knowing. This relational knowledge, then, becomes organized into the internal working model an individual acquires through interpersonal experiences, which then aids them in knowing "how to be with someone" (p. 23). Since spiritual relationships are also forms of implicit relational knowing, it is presumed that an individual's perceived attachment to God arises out of their prior relational experiences (e.g., parents). Noting that religious beliefs and spiritual practices are often socially transmitted from parent to child, Granqvist (2010) asserted that parental religiousness could moderate an individual's attachment behavior to God (see also Kirkpatrick & Shaver, 1990; Kirkpatrick, 2005). This hypothesis, now referred to as the social correspondence model, reflects research findings that parent–offspring similarity in religiousness is more significant if parents had positive caregiving qualities (see Hood et al., 2009). Granqvist (2002; see also Granqvist & Hagekull, 1999, 2001) observed that people who report higher levels of parental care and

attachment also score higher on measures of religiousness, with the caveat that an individual's parents also displayed similar levels of religiosity. Support for this hypothesis has also been found in individuals who report being securely attached in their relationship with God because of parental religious sensitivity (Beck & McDonald, 2004; Hall & Edwards, 2002), religious similarity (Kirkpatrick & Shaver, 1990), and religious socialization (Granqvist, 2002; Granqvist et al., 2007; Granqvist & Hagekull, 1999).

Compensation Hypothesis

Although the social correspondence hypothesis is exemplified in securely attached or insecurely attached persons, the compensation hypothesis is specified only for insecurely attached persons. This hypothesis is rooted in early attachment theory discussions that said children who have been inadequately cared for, or whose primary attachment figures were unavailable, may come to identify with other individuals or objects as surrogate attachment figures (Ainsworth, 1985; Bowlby, 1969, 1982). With an unsafe or unavailable attachment figure, the attached person may engage in proximity-seeking behaviors. As illustrated by Bowlby (1969, 1982):

> Whenever the natural object of attachment behavior is unavailable, the behavior can become directed towards some substitute object. Even though it is inanimate, such an object frequently appears capable of filling the role of an important, though subsidiary, attachment "figure." Like the principal attachment figure, the inanimate substitute is sought especially when a child is tired, ill or distressed. (p. 313)

Although neither Bowlby nor Ainsworth explicitly mentioned God in their lists of potential attachment surrogates, the attachment relationship criteria previously discussed suggest that under certain circumstances, God could act as a surrogate attachment figure (see Granqvist et al.,

2010; Kirkpatrick, 2005; Kirkpatrick & Shaver, 1990). Additionally, researchers have found that individuals see God as a substitute or compensatory attachment figure during times of distress when a secure attachment figure is not readily available (Granqvist et al., 2007; Granqvist et al., 2010). Empirical evidence supporting this hypothesis is considerable. Studies have found that individuals who reported low parental sensitivity more frequently reported a sudden and intense increase in personal religiousness (Granqvist et al., 2007; Kirkpatrick & Shaver, 1990). In the 4-year longitudinal study, Kirkpatrick (1997) found that women with ambivalent or preoccupied romantic attachments established a new relationship with God. These individuals also reported more meaningful religious experiences than securely attached women did. These findings have since been replicated for both males and females in cross-cultural studies in the United States and Europe (Kirkpatrick, 1998; Granqvist & Hagekull, 2001).

In addition to helping individuals with religious coping, God may also serve as a compensatory attachment figure for recent and sudden religious converts (Kirkpatrick & Shaver, 1990; Granqvist & Kirkpatrick, 2004; Pirutinsky, 2009). The compensatory model also appears to be present in individuals who suffered "attachment-related adversities in the past" and who "may have 'earned' a certain degree attachment security from their perceived relationship with God" (Granqvist et al., 2007, p. 54). Through this lens, an individual's relationship with God could result in new ways of relating and being in emotionally healthy connections, and those with insecure attachment relationships may experience a positive change in their internal working model through their relationship with a loving God—a relationship that enables them to reappraise their view of self and ultimately other relationships (Granqvist, 2010).

Investigating the Social Correspondence and Compensation Hypotheses Using the Attachment to God Inventory

Investigations have primarily centered on exploring the correspondence between an individual's parental attachment relationship and their relationship with deity. The overwhelming conclusion affirms that individuals who characterize their parental relationships as leading to high levels of anxiety and avoidance (because they had authoritarian or cruel parents) tend to have distant relationships with God (Beck et al., 2005; Limke & Mayfield, 2011; Exline et al., 2013). Interestingly, this phenomenon appears to be affected by fathers, not mothers—a detail that may support the traditional Christian notion of viewing God as a "Heavenly Father" (Limke & Mayfield, 2011). In addition to parental correspondence, evidence has suggested that the manner in which people treat or view themselves corresponds with how they view their relationship with God. The concept of self-correspondence has been most thoroughly investigated by Homan (2012, 2014) and colleagues (Homan & Boyatzis, 2010; Homan & Lemmon, 2014) who have studied women with body image concerns. Their results have been consistent in finding that higher levels of anxiety and avoidance in relation to attachment to God predicted lower levels of self-compassion and that lower levels of anxiety and avoidance in relation to attachment to God were associated with self-acceptance, environmental mastery, and personal growth (Homan 2014). Seen differently, this self-correspondence perspective suggests that the relationship between an individual's positive self-perception and secure relationship creates a space wherein positive coping behaviors can occur (Morúa, 2008; Scheidle, 2010; Houser & Welch, 2013). Conversely, negative self-perception and an insecure attachment relationship with God would correspond to negative coping behaviors (Barr-Jeffrey, 2008; Miner et al., 2013), such as work addiction (Kézdy et al., 2013). In studies of religious clergy, a

negative and insecure relationship with deity has been found to correspond to burnout (Barr-Jeffrey, 2008), lower levels of clergy competence and spiritual relatedness (Miner et al., 2013), and inadequate emotional regulation and resilience (Barr-Jeffrey, 2008; Miner et al., 2013). Similar results were found in studies of adult children of alcoholics (Dumont et al., 2012) and female survivors of sexual abuse (Nowacki-Butzen, 2009).

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APPENDIX B

Psychometric Investigations of Other Administered Measures

Several instruments were simultaneously administered to participants in this study. An analysis of the model fit and internal consistency of these instruments was necessary to assess their relationship with the Attachment to God Inventory (AGI; Beck & McDonald, 2004) and other psychological constructs. The purpose of this study was to assess the models of each measure via confirmatory factor analysis (CFA) using the designated sample. Models that produced poor initial fit statistics were reevaluated using the same methodology outlined in the analysis of the AGI.

Brief Multidimensional Measure of Religion and Spirituality

The factor structure of the Brief Multidimensional Measure of Religion and Spirituality (BMMRS; Fetzer Institute/National Institute of Aging Working Group, 1999/2003) has been long contested (Johnstone et al., 2009; Stewart & Koeske, 2006; Idler et al., 2003; Neff, 2006; Piedmont et al., 2006; Masters et al., 2009). Despite using different theoretical rationales, these studies share methodological limitations similar to those of the AGI. Factor analytic results produced by Masters et al. (2009) served as the baseline model since their participants closely reflected those of this investigation. Masters et al.'s model consisted of seven factors: (a) *experiential comforting faith*, (b) *negative religious interaction,* (c) *personal spirituality*, (d) *punishing God,* (e) *religious community support,* (f) *private religious practice,* and (g) *forgiveness*. A close examination of this seven-factor model revealed several instances of items cross-loading between factors. For example, item 7 ("I believe in a God who watches over me") was simultaneously specified to the *forgiveness* and *experiential comforting faith* factors, and item 6 ("I am spiritually touched by the beauty of creation") was specified to both the

experiential comforting faith and *personal spirituality* factors. Although assigning items to multiple factors may be theoretically justified, this type of model specification violates the assumption of simple factor structure (see Thurstone, 1947; Cattell, 1946).

Given these concerns, the data were submitted to an exploratory factor analysis (EFA). Factor retention procedures suggested the possibility of four to eight factors. Models containing five, six, seven, and eight factors were rejected because several factors possessed fewer than three items. The four-factor model possessed good fit for the CFA sample ($\chi^2(71) = 680.311$; RMSEA = .073 [90% CI: .068–.078]; CFI/TLI = .981/.975), which was consistent for the entire study sample ($\chi^2(71) = 1109.164$; RMSEA = .067 [90% CI: .064–.071]; CFI/TLI = .983/.978; see Table C27).

Strong observed correlations between many of the factors (range: r = .649 to .869) suggested the possibility of a higher-order factor that was labeled *personal spiritual/religious beliefs and practices*. The higher-order factor model possessed acceptable model fit for the entire study sample ($\chi^2(73) = 1051.851$; RMSEA = .065 [90% CI: .061–.068]; CFI/TLI = .984/.980; see Table C28). This model was preferred over the four-factor model based on the moderately better fit indices. Internal consistency estimates were good for *experiential comforting faith* (McDonald's ω = .873 [95% CI: .864–.882]), *forgiveness* (McDonald's ω = .800 [95% CI: .785–.816]), *personal spirituality* (McDonald's ω = .732 [95% CI: .706–.741]), *private religious practice* (McDonald's ω = .870 [95% CI: .862–.877]), and for the *higher-order factor* (McDonald's ω_h = .828 [95% CI: .817–.840]). The reader is referred to Table C29 for item correlations and descriptive statistics of the final model and to Figure C14 for the structural diagram.

Spirituality Scale

The Spirituality Scale (SS; Delaney, 2005) contains three factors that are hypothesized to be associated with an individual's spirituality: *self-discovery, relationships*, and *eco-awareness*. This three-factor model was submitted to CFA and was found to possess poor fit ($\chi^2(206) = 6355.046$, $p < .001$; RMSEA = .136 [90% CI: .133–.139]; CFI/TLI = .830/.809). Items in each subscale were found to possess high correlated residuals between items in other subscales. Content analysis revealed that items assigned to one factor could equally be assigned to others. For example, item 17 ("I believe that all living creatures deserve respect") was assigned to the *relationships* factor but could also be assigned to the *eco-awareness* factor since items such as "I live in harmony with nature" (item 9) and "The earth is sacred" (item 19) share similar content. Additionally, factor loadings published by Delaney (2005, p. 158) revealed that items with comparatively lower loadings (i.e., $\lambda \leq .70$; range: .42–.68) were associated with aspects of self-discovery (items 8, 13, and 23) and nature (items 6 and 11), whereas items with comparatively higher loadings (i.e., $\lambda \geq .70$; range: .72–.97) were more related to aspects of spiritual practices (items 5 and 21) and beliefs (items 7, 9, 15, 16, and 18).

As such, items of the Spirituality Scale were submitted to EFA. Factor retention methods suggested the possibility of two to four factors. Fit statistics of the two- ($\chi^2(26) = 670.181$; RMSEA = .124 [90% CI: .116–.132]; CFI/TLI = .973/.963) and three-factor models were poor ($\chi^2(41) = 663.530$; RMSEA = .097 [90% CI: .091–.104]; CFI/TLI = .976/.968). The four-factor model possessed mediocre fit ($\chi^2(71) = 912.228$; RMSEA = .086 [90% CI: .081–.091]; CFI/TLI = .964/.954), however, the explained variance of the third factor (items 8, 9, and 10) was low ($r^2 = .278$) when compared to the other factors ($r^2 = .621, .820, .830$). The model was respecified without the third factor and was found to possess acceptable fit ($\chi^2(24) = 314.600$; RMSEA =

.087 [90% CI: .078–.095]; CFI/TLI = .984/.976). The model was comparable for the entire study sample ($\chi^2(24) = 543.049$; RMSEA = .082 [90% CI: .076–.088]; CFI/TLI = .985/.978; see Table C30). The reader is referred to Figure C15 for the structural diagram.

The first factor (items 1, 2, and 3) was consistent with Delaney's (2005) *self-discovery* factor (McDonald's ω = .829 [95% CI: .814–.844]). The second factor (items 17, 19, and 22) reflected the original *eco-awareness* factor (McDonald's ω = .779 [95% CI: .760–.798]). The third factor (items 16, 23, 28, and 36) reflected an individual's *spiritual beliefs and practices* (McDonald's ω = .884 [95% CI: .873–.894]). Correlations between the *self-discovery* and *eco-awareness* factors ($r = .291$, $p <. 001$) and *spiritual beliefs and practices* were small ($r = .281$, $p < .001$). Moderate correlations were observed between *self-discovery* and *spiritual beliefs and practices* ($r = .413$, $p < .001$). The reader is referred to Table C31 for item correlations and descriptive statistics of the final model.

Index of Core Spiritual Experiences

Despite possessing items with different item response options and scales, the Index of Core Spiritual Experiences (INSPIRIT; Kass et al., 1991) was conceptualized as unidimensional. The data were submitted to CFA, and model fit was poor ($\chi^2(135) = 1719.009$, $p < .001$; RMSEA = .198 [90% CI: .195–.200]; CFI/TLI = .815/.790). Because item 7 could be conceptualized as a "checklist" of 12 different "spiritual experiences" (Kass et al., 1991, p. 206), it was decided to assign these items to their own factor; however, model fit remained poor ($\chi^2(134) = 10463.913$; RMSEA = .155 [90% CI: .152–.157]; CFI/TLI = .888/.872).

Given that the measure was developed using uncertain methodology, an EFA was conducted. Factor retention methods suggested the possibility of two to four factors. The three-factor model possessed poor model fit and did not improve after removing items with low

explained variance ($\chi^2(24) = 370.645$; RMSEA = .095 [90% CI: .086–.103)]; CFI/TLI = .987/.980) and the four-factor model was rejected because two factors possessed only two items. The two-factor model possessed excellent model fit ($\chi^2(8) = 41.068$; RMSEA = .051 [90% CI: .036–.066)], $p = .440$; CFI/TLI = .999/.997) and was consistent for the entire study sample ($\chi^2(8) = 113.094$; RMSEA = .064 [90% CI: .054–.075]), $p = .012$; CFI/TLI = .998/.996; see Table C32). The reader is referred to Figure C16 for the structural diagram.

The first factor was labeled *spiritual-religious connection* (items 1, 2, 4) and possessed good internal consistency (McDonald's ω = .810 [95% CI: .796–.823]). The second factor was labeled *positive emotional experiences* (items 7F, 7G, and 7H) and possessed good internal consistency (McDonald's ω = .890 [95% CI: .880–.889]). Correlations between the two factors were moderate ($r = .590$, $p < .001$). The reader is referred to Table C33 for item correlations and descriptive statistics of the final model.

Spiritual Transcendence

The Spiritual Transcendence subscale is part of the Temperament and Character Inventory (TCI-ST; Cloninger et al., 1994). Several independent teams of researchers have reported that the Spiritual Transcendence subscale is a second-order factor with three first-order, or facet-level, factors—*self-forgetful vs. self-conscious, transpersonal identification,* and *spiritual acceptance vs. materialism* (Gana & Trouillet, 2003; Farmer & Goldberg, 2008; Takeuchi et al., 2011). Unfortunately, these researchers do not report the content of the three first-order factors.

Prior to performing EFA, factor retention procedures indicated the possibility of two to four factors. The two-factor solution was rejected due to poor model fit that remained after eliminating items with low explained variance ($\chi^2(8) = 89.893$; RMSEA = .080 [90% CI: .066–

.096]; CFI/TLI: .987/.977). The three-factor solution initially possessed poor model fit ($\chi^2(51)$ = 1400.579; RMSEA = .129 [90% CI: .123–.135]; CFI/TLI: .900/.871), but the model fit improved to acceptable levels after removing two negatively-worded items (4 and 23; $\chi^2(32)$ = 318.617; RMSEA = .075 [90% CI: .068–.083]; CFI/TLI: .974/.964). These results were consistent for the entire study sample ($\chi^2(32)$ = 626.241; RMSEA = .077 [90% CI: .072–.082]; CFI/TLI: .971/.960; see Table C34). The reader is referred to Figure C17 for the structural diagram.

The first factor contained three items (1, 3, and 5) that suggested what other researchers termed *transpersonal identification* (ρ = .711 [95% CI: .690–.731]). The second factor contained four items (7, 14, 16, and 17) that reflected content of the original *spiritual acceptance vs. materialism* factor; however, items referring to "materialism" (i.e., items 4 and 23) were not represented in this model. Thus, this factor is simply labeled *spiritual acceptance* (McDonald's ω = .792 [95% CI: .776–.808]). The third factor contained three items (12, 19, and 24) and appeared to reflect the *self-forgetful vs. self-conscious* (McDonald's ω = .763 [95% CI: .747–.780]) construct identified by other researchers. *Transpersonal identification* was moderately correlated with *spiritual acceptance* (r = .396, p < .001), but weak with *self-forgetful vs. self-conscious* (r = .369, p < .001). The relationship between *spiritual acceptance* and the *self-forgetful vs. self-conscious* constructs was essentially orthogonal (r = −.053, p = .008). The reader is referred to Table C35 for item correlations and descriptive statistics of the final model.

Quest Scale

The version of the Quest Scale (QS; Batson & Schoenrade, 1991a, 1991b) administered in this study did not contain all of the items in the original instrument. The original measure contained 12 items representing three four-item factors: *readiness*, *self-critical*, and o*penness.* In this study, both the *self-critical* and *openness* factors were represented by three items per factor,

but only two items represented the *readiness* factor. Because the original model was not represented, an EFA was performed. Factor retention methods suggested the possibility of one to three factors, but the two- and three-factor solutions were uninterpretable because of high-item cross-loadings and poor item communalities. The unidimensional solution retained five items and was submitted to CFA. Model fit was mediocre ($\chi^2(5) = 61.211$; RMSEA = .083 [90% CI: .066–.103], $p = .001$; CFI/TLI = .982/.963). Removing items with low explained variance did not improve model fit. The entire study sample possessed acceptable model fit ($\chi^2(5) = 89.906$; RMSEA = .071 [90% CI: .059–.085], $p = .003$; CFI/TLI = .986/.973; see Table C36). The reader is referred to Figure C18 for the structural diagram.

The resulting five-item model is composed of two items (9 and 10) from the *openness* factor, two items (5 and 6) from the *self-critical* factor, and one item (1) from the *readiness* factor. Rather than attempting to conceptualize this factor as something that may theoretically be referred to as one's religious "quest," the items are better identified with one's religious "quest[ioning]" or religious doubts (McDonald's $\omega = .693$ [95% CI: .674–.712]). The reader is referred to Table C37 for item correlations and descriptive statistics of the final model.

Intrinsic Spirituality Scale

A CFA of the Intrinsic Spirituality Scale (ISS; Hodge, 2003) was conducted using the robust maximum likelihood estimator (MLR) to account for the continuous scale of the measure. Model fit was excellent ($\chi^2(9) = 20.759$; RMSEA = .028 [90% CI: .012–.045], $p = .987$; CFI/TLI = .997/.996; see Table C38). The reader is referred to Figure C19 for the structural diagram. Internal consistency was exceptionally high ($\alpha = .971$ [95% CI: .969–.973]), suggesting item homogeneity. The reader is referred to Table C39 for item correlations and descriptive statistics of the final model.

Rosenberg Self-Esteem Scale

The psychometric history of the Rosenberg Self-Esteem Scale (RSES) is complex and contentious (Owens, 1994). Initially, Rosenberg posited a unidimensional model of self-esteem; however, subsequent factor analytic studies have suggested a two-factor scale comprised of *positive images of the self* and *negative images of the self* (Bachman & O'Malley, 1986; Goldsmith, 1986; Kaplan & Pokorny, 1969; Owens, 1994). Marsh (1996) assessed the RSES via CFA and concluded the two-factor model was due in part to the method effect of negatively worded items. This method effect that has since been replicated by other researchers (see Corwyn, 2000; Tomas & Oliver, 1999; Greenberger et al., 2003). More recently, a meta-analysis of 80 independent studies found support for the bi-factor model with positively and negatively worded items as uncorrelated method factors (Huang & Dong, 2012). Building upon these findings, the bi-factor model was submitted to CFA. The model was found to possess acceptable fit ($\chi^2(25) = 289.045$; RMSEA = .081 [90% CI: .073–.089]; CFI/TLI = .991/.983) and was consistent for the entire study sample ($\chi^2(25) = 574.172$; RMSEA = .083 [90% CI: .077–089]; CFI/TLI = .990/.982; see Table C40). The reader is referred to Figure C20 for the structural diagram. Internal consistency fell in the lower limits of acceptability (McDonald's ω_h = .672 [95% CI: .668–.691]). The reader is referred to Table C41 for item correlations and descriptive statistics of the final model.

Friendship Scale

Results of the CFA for the Friendship Scale (FS; Hawthorne, 2006) were poor ($\chi^2(9) = 837.10$; RMSEA = .239 [90% CI: .225–.253]; CFI/TLI = .918/.864). A negative-word method factor was hypothesized because half of the items (1, 3, and 4) were specified as reverse-scored. The model possessed excellent fit ($\chi^2(6) = 27.22$); RMSEA = .047 [90% CI: .030–.065], p =

.579; CFI/TLI = .998/.995), and was consistent for the entire sample ($\chi^2(33) = 62.037$; RMSEA = .054 [90% CI: .042–.066], $p = .277$; CFI/TLI = .997/.994; see Table C42). The reader is referred to Figure C21 for the structural diagram. Internal consistency, however, was questionable (McDonald's $\omega = .617$ [95% CI: .580–.653]). The reader is referred to Table C43 for item correlations and descriptive statistics of the final model.

Experiences in Close Relationship–Short Form

The ECR-S (Wei et al., 2007) is a 12-item scale derived from the original 36-item ECR. Unlike the ECR, which considered the *attachment anxiety* and *attachment avoidance* constructs as orthogonal, the ECR-S allows the two factors to correlate (range $r = .17–.25$ across six studies in Wei et al. 2007). Additionally, the authors specified two uncorrelated method factors of positively and negatively worded items to account for method bias. The authors reported good model fit using the maximum likelihood estimator ($\chi^2(41) = 91.89$; RMSEA = .07 [90% CI: .05–.09]; CFI = .96; SRMR = .07) with good internal consistency for the *attachment anxiety* ($\alpha = .77–.86$) and *attachment avoidance* ($\alpha = .78–.88$) subscales across the six studies.

The ECR-S model proposed by Wei et al. (2007) was submitted to CFA using the ML estimator to replicate their results. Additionally, the weighted least squares mean and variance adjusted estimator (WLSMV) was used to better account for the ordered-categorical nature of the measure. Unfortunately, because of linear dependence between the two attachment factors, the model failed to converge. It was hypothesized that constraining the factors to be orthogonal would be more consistent with attachment theory and contribute to model identification. Fit, however, remained poor for the ML ($\chi^2(42) = 909.308$; RMSEA = .113 [90% CI: .107–.120]; CFI/TLI = .880/.811; SRMR = .101) and WLSMV estimators ($\chi^2(42) = 2221.359$; RMSEA =

.179 [90% CI: .173–.186]; CFI/TLI = .885/.819). Modification indices were consulted; however, no theoretically justifiable or meaningful changes were identified.

These results were thought to reflect those of other researchers who conducted similar analyses using translated versions of the ECR. For example, factor analytic studies of the Norwegian version of the ECR suggested a two- (Olssøn et al., 2010) or three-factor model (Pedersen et al., 2015) that, theoretically, represented facets of attachment. The two-factor model suggested by Olssøn et al. (2010) comprised what the authors termed *dependence* or *comfort with openness*/*reluctance of self-disclosure* facets (27, 33, and 35) and *concern* or *discomfort with closeness* facets (6, 11, and 26). The two-factor model possessed poor fit using the WLSMV ($\chi^2(8) = 461.692$; RMSEA = .188 [90% CI: .173–.202]; CFI/TLI = .961/.927) and MLR estimators ($\chi^2(8) = 157.030$; RMSEA = .107 [90% CI: .093–.122]; CFI/TLI = .921/.852).

The three-factor model proposed by Pedersen et al. (2015) contained items associated with the *comfort with closeness* (11, 13, and 17), *dependence/disclosure* (27, 33, and 35), and *concerns with closeness* facets (6, 16, and 26). The first two factors were associated with *attachment avoidance*, and the third factor was associated with *attachment anxiety*. Model fit was poor using the WLSMV estimator ($\chi^2(24) = 653.925$; RMSEA = .128 [90% CI: .119–.136]; CFI/TLI = .963/945); however, the MLR estimator produced acceptable results using the designated CFA sample ($\chi^2(24) = 228.662$; RMSEA = .073 [90% CI: .064–.081]; CFI/TLI = .945/.917), which was generalizable for the entire study sample ($\chi^2(24) = 388.832$; RMSEA = .069 [90% CI: .063–.075]; CFI/TLI = .949/.924 see Table C44). The reader is referred to Figure C22 for the structural diagram.

The correlation between *comfort with closeness* (McDonald's ω = .816 [95% CI: .803–.829]) and *dependence/disclosure* (McDonald's ω = .865 [95% CI: .842–.868]) was modest and

negative ($r = -.354$, $p < .001$) and statistically orthogonal ($r = -.089$, $p = .002$) with *dependence/disclosure* (McDonald's ω = .865 [95% CI: .842–.868]). Strong correlations existed between *dependence/disclosure* and *concern for closeness* ($r = .567$, $p < .001$). The reader is referred to Table C45 for item correlations and descriptive statistics of the final model.

Generalized Anxiety Disorder Scale

A confirmatory factor analysis for the Generalized Anxiety Disorder Scale (GAD-7; Spitzer et al., 2006) possessed poor fit ($\chi^2(14) = 272.26$; RMSEA = .107 [90% CI: .096–.118]; CFI/TLI = .989/.983). Modification indices suggested significant correlated residuals between item 2 ("Not being able to stop or control worrying") and item 3 ("Worrying too much about different things"). The respecified model possessed acceptable fit ($\chi^2(13) = 142.990$; RMSEA = .079 [90% CI: .067–.091]; CFI/TLI = .994/.991) and was consistent for the entire sample ($\chi^2(13) = 288.324$; RMSEA = .081 [90% CI: .073–.090]; CFI/TLI = .994/.990; see Table C46). The reader is referred to Figure C23 for the structural diagram. Internal consistency was excellent (ρ = .900 [95% CI: .894–.907]). The reader is referred to Table C47 for item correlations and descriptive statistics of the final model.

Patient Health Questionnaire

Model fit for the Patient Health Questionnaire (PHQ-9; Spitzer et al., 2001) was poor ($\chi^2(27) = 503.916$; RMSEA = .105 [90% CI: .097–.113]; CFI/TLI = .960/.947). Significant correlated residuals were observed between item 3 ("Trouble falling or staying asleep, or sleeping too much") and item 4 ("Feeling tired or having little energy") and between item 7 ("Trouble concentrating on things, such as reading the newspaper or watching television") and item 8 ("Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual"). The

model was respecified and possessed acceptable fit ($\chi^2(25) = 296.895$; RMSEA = .082 [90% CI: .074–.091]; CFI/TLI = .977/.967), which was consistent for the entire sample ($\chi^2(25) = 597.450$; RMSEA = .085 [90% CI: .079–.091]; CFI/TLI = .975/.964; see Table C48). The reader is referred to Figure C24 for the structural diagram. Internal consistency was good (ρ = .869 [95% CI: .860–.878]). The reader is referred to Table C49 for item correlations and descriptive statistics of the final model.

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APPENDIX C

Tables and Figures

Table C1

Comparison of Adult Attachment and Attachment to God Theory Facets

Adult Attachment Theory	Attachment to God Theory
Attachment Avoidance	*Avoidance of Intimacy*
1. Discomfort with dependence	1. Difficulty depending on God
2. Partner is a good attachment figure	2. Need for self-reliance
3. Self-reliance	3. Unwillingness to be emotionally intimate with God
4. Discomfort with closeness	
5. Trust in partners	
6. Tough-minded independence	
Attachment Anxiety	*Anxiety Over Abandonment*
1. Separation anxiety	1. Fear of potential abandonment
2. Attachment-related anger at partners	2. Angry protest
3. Uncertainty about feelings for partners	3. Jealousy of God's differential intimacy with others
4. Lovability/relational self-esteem	4. Preoccupation with the relationship
5. Desire to merge with partners	
6. Fear of abandonment	

Table C2

Comparison of the Attachment Anxiety Items in ECR and AGI

Experiences in Close Relationships		*Attachment to God Inventory*	
Item	Item Label	Item	Item Label
2	I worry about being abandoned.	1	I worry a lot about my relationship with God.
4	I worry a lot about my relationships.	3	If I can't see God working in my life, I get upset or angry.
6	I worry that romantic partners won't care about me as much as I care about them.	5	I am jealous at how God seems to care more for others than for me.
8	I worry a fair amount about losing my partner.	7	Sometimes I feel that God loves others more than me
10	I often wish that my partner's feelings for me were as strong as my feelings for him/her.	9	I am jealous at how close some people are to God.
12	I often want to merge completely with romantic partners, and this sometimes scares them away.	11	I often worry about whether God is pleased with me.
14	I worry about being alone.	13	Even if I fail, I never question that God is pleased with me. (R)
16	My desire to be very close sometimes scares people away.	15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold".
18	I need a lot of reassurance that I am loved by my partner.	17	I fear God does not accept me when I do wrong.
20	Sometimes I feel that I force my partners to show more feeling, more commitment.	19	I often feel angry with God for not responding to me when I want.
22	I do not often worry about being abandoned. (R)	21	I crave reassurance from God that God loves me.
24	If I can't get my partner to show interest in me, I get upset or angry.	23	I am jealous when others feel God's presence when I cannot.
26	I find that my partner(s) don't want to get as close as I would like.	25	I worry a lot about damaging my relationship with God.
28	When I'm not involved in a relationship, I feel somewhat anxious and insecure.	27	I get upset when I feel God helps others, but forgets about me.
30	I get frustrated when my partner is not around as much as I would like.		
32	I get frustrated if romantic partners are not available when I need them.		
34	When romantic partners disapprove of me, I feel really bad about myself.		
36	I resent it when my partner spends time away from me.		

Note. (R) = Reverse-scored item.

Table C3

Comparison of the Attachment Avoidance Items in the ECR and AGI

Experiences in Close Relationships		*Attachment to God Inventory*	
Item	Item Label	Item	Item Label
1	I prefer not to show a partner how I feel deep down.	2	I just don't feel a deep need to be close to God.
3	I am very comfortable being close to romantic partners. (R)	4	I am totally dependent upon God for everything in my life. (R)
5	Just when my partner starts to get close to me I find myself pulling away.	6	It is uncommon for me to cry when sharing with God.
7	I get uncomfortable when a romantic partner wants to be very close.	8	My experiences with God are very intimate and emotional. (R)
9	I don't feel comfortable opening up to romantic partners.	10	I prefer not to depend too much on God.
11	I want to get close to my partner, but I keep pulling back.	12	I am uncomfortable being emotional in my communication with God.
13	I am nervous when partners get too close to me.	14	My prayers to God are often matter-of-fact and not very personal.
15	I feel comfortable sharing my private thoughts and feelings with my partner. (R)	16	I am uncomfortable with emotional displays of affection to God.
19	I find it relatively easy to get close to my partner. (R)	18	Without God I couldn't function at all. (R)
21	I find it difficult to allow myself to depend on romantic partners.	20	I believe people should not depend on God for things they should do for themselves.
23	I prefer not to be too close to romantic partners.	22	Daily I discuss all of my problems and concerns with God. (R)
25	I tell my partner just about everything. (R)	24	I am uncomfortable allowing God to control every aspect of my life.
27	I usually discuss my problems and concerns with my partner. (R)	26	My prayers to God are very emotional. (R)
29	I feel comfortable depending on romantic partners. (R)	28	I let God make most of the decisions in my life. (R)
31	I don't mind asking romantic partners for comfort, advice, or help. (R)		
33	It helps to turn to my romantic partner in times of need. (R)		
35	I turn to my partner for many things, including comfort and reassurance. (R)		

Note. (R) = Reverse-scored item.

Table C4

Attachment to God Inventory Factor Structure Published by Beck and McDonald (2004)

Item	Item Label	λ_1	λ_2
8	My experiences with God are very intimate and emotional. (R)	**.74**	.05
10	I prefer not to depend too much on God.	**.68**	.15
26	My prayers to God are very emotional. (R)	**.66**	−.16
4	I am totally dependent upon God for everything in my life. (R)	**.65**	.19
2	I just don't feel a deep need to be close to God.	**.64**	.08
18	Without God I couldn't function at all. (R)	**.64**	.01
22	Daily I discuss all of my problems and concerns with God. (R)	**.61**	.25
12	I am uncomfortable allowing God to control every aspect of my life.	**.60**	.21
28	I let God make most of the decisions in my life. (R)	**.59**	.22
16	I am uncomfortable with emotional displays of affection to God.	**.54**	.15
6	It is uncommon for me to cry when sharing with God.	**.53**	−.23
12	I am uncomfortable being emotional in my communication with God.	**.50**	.05
20	I believe people should not depend on God for things they should do for themselves.	**.50**	.07
14	My prayers to God are often matter-of-fact and not very personal.	**.47**	.24
11	I often worry about whether God is pleased with me.	−.04	**.65**
1	I worry a lot about my relationship with God.	−.05	**.65**
27	I get upset when I feel God helps others, but forgets about me.	.24	**.63**
17	I fear God does not accept me when I do wrong.	.11	**.62**
19	I often feel angry with God for not responding to me when I want.	.17	**.61**
25	I worry a lot about damaging my relationship with God.	−.09	**.61**
5	I am jealous at how God seems to care more for others than for me.	.19	**.60**
9	I am jealous at how close some people are to God.	.17	**.56**
23	I am jealous when others feel God's presence when I cannot.	.16	**.56**
7	Sometimes I feel that God loves others more than me.	.20	**.55**
3	If I can't see God working in my life, I get upset or angry.	.05	**.55**
21	I crave reassurance from God that God loves me.	.25	**.50**
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."	.08	**.50**
13	Even if I fail, I never question that God is pleased with me. (R)	.09	**.43**

Note. (R) = Reverse-scored item; λ_1 = *Avoidance of intimacy with God* subscale; λ_2 = *Anxiety over abandonment* subscale.

Figure C1

2-Dimensional/4-Category Model of Adult Attachment

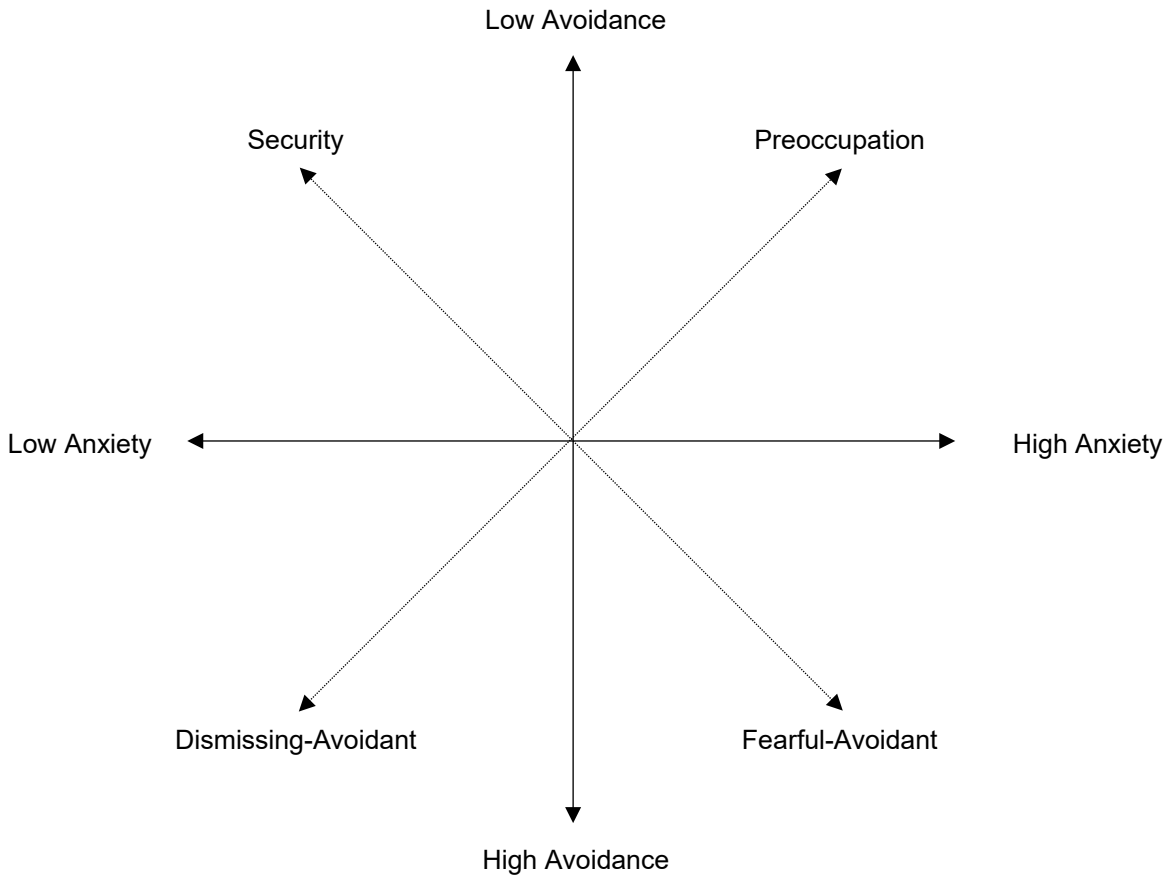

Table C5

Sociodemographic and Religious Characteristics of Study Participants

Sociodemographic and Religions Charateristics	Subsample A *n* = 1482		Subsample B *n* = 1499		Study Sample *N* = 2981	
Age						
Mean (SD)	2.53	(3.089)	2.52	(2.990)	2.53	(3.039)
Range	18–34		18–34		18–34	
Median	19		20		20	
Mode	18		18		18	
Gender						
Female	1030	48.68%	1086	51.32%	2116	70.98%
Male	452	52.25%	413	47.75%	865	29.02%
Sexual Orientation						
Straight	1157	49.70%	1171	50.30%	2328	78.09%
Bisexual	19	44.19%	24	55.81%	43	1.44%
Gay/Lesbian	17	50.00%	17	50.00%	34	1.14%
Questioning	13	68.42%	6	31.58%	19	0.64%
Transgendered	0	0.00%	3	100.00%	3	0.10%
Pansexual	1	33.33%	2	66.67%	3	0.10%
Asexual	1	50.00%	1	50.00%	2	0.07%
Demisexual	1	50.00%	1	50.00%	2	0.07%
Queer	0	0.00%	1	100.00%	1	0.03%
Ethnic Identity						
White	1022	50.82%	989	49.18%	2011	67.46%
Asian American	149	47.60%	164	52.40%	313	10.50%
Hispanic/Latino	121	51.93%	112	48.07%	233	7.82%
Mixed Ethnicity	102	45.13%	124	54.87%	226	7.58%
African American	68	45.33%	82	54.67%	150	5.03%
Middle Eastern	6	26.09%	17	73.91%	23	0.77%
Native Hawaiian/Pacific Islander	5	62.50%	3	37.50%	8	0.27%
American Indian/Native Alaskan	1	20.00%	4	80.00%	5	0.17%
Missing/Unknown	8	66.67%	4	33.33%	12	0.40%
Estimated Parental Income						
< $15,000	45	46.39%	52	53.61%	97	3.25%
$15,000–$30,000	146	53.68%	126	46.32%	272	9.12%
$30,000–$50,000	205	50.62%	200	49.38%	405	13.59%
$50,000–$75,000	260	46.02%	305	53.98%	565	18.95%
$75,000–$100,000	308	50.41%	303	49.59%	611	20.50%
$100,000–$200,000	338	50.45%	332	49.55%	670	22.48%
> $200,000	166	50.76%	161	49.24%	277	10.97%

Table C5 (continued)

Sociodemographic and Religions Charateristics	Subsample A *n* = 1482		Subsample B *n* = 1499		Study Sample *N* = 2981	
Growing Up Environment						
Urban	214	48.53%	227	51.47%	441	14.79%
Suburban	737	48.74%	775	51.26%	1512	50.72%
Rural	221	53.51%	192	46.49%	413	13.85%
Mixed	217	52.42%	197	47.58%	414	13.89%
Religious Denomination						
Christianity	**1335**	**5.13%**	**1328**	**49.87%**	**2663**	**89.33%**
Catholic	289	50.17%	287	49.83%	576	19.32%
Mormon	256	49.14%	265	50.86%	521	17.48%
Protestant	238	52.77%	213	47.23%	451	15.13%
Non-denominational	149	54.18%	126	45.82%	275	9.23%
Evangelical	102	48.80%	107	51.20%	209	7.01%
Baptist	94	51.37%	89	48.63%	183	6.14%
Other	34	51.52%	32	48.48%	66	2.21%
Methodist	23	45.10%	28	54.90%	51	1.71%
Presbyterian	17	45.95%	20	54.05%	37	1.24%
Pentecostal	12	41.38%	17	58.62%	29	0.97%
Eastern Orthodoxy	15	46.88%	17	53.13%	32	1.07%
Lutheran	7	41.18%	10	58.82%	17	0.57%
Episcopal	6	60.00%	4	40.00%	10	0.34%
Anglicanism	6	54.55%	5	45.45%	11	0.37%
Church of Christ	5	62.50%	3	37.50%	8	0.27%
Assemblies of God	1	16.67%	5	83.33%	6	0.20%
Seventh Day Adventist	3	42.86%	4	57.14%	7	0.23%
Jehovah's Witness	6	100.00%	0	0.00%	6	0.20%
Oriental Orthodoxy	2	50.00%	2	50.00%	4	0.13%
Church of God	1	33.33%	2	66.67%	3	0.10%
Mystical Christianity	1	100.00%	0	0.00%	1	0.03%
Restorationism	1	50.00%	1	50.00%	2	0.07%
Not Indicated	67	42.41%	91	57.59%	158	5.30%
Judaism	**60**	**46.51%**	**69**	**53.49%**	**129**	**4.33%**
Orthodox	32	49.23%	33	50.77%	65	2.18%
Reform	13	41.94%	18	58.06%	31	1.04%
Conservative	9	47.37%	10	52.63%	19	0.64%
Other	6	42.86%	8	57.14%	14	0.47%
Islam	**25**	**42.37%**	**34**	**57.63%**	**59**	**1.98%**
Muslim	14	43.75%	18	56.25%	32	1.07%
Sunni	10	40.00%	15	60.00%	25	0.84%
Shiite	1	50.00%	1	50.00%	2	0.07%

Table C5 (continued)

Sociodemographic and Religions Charateristics	Subsample A *n* = 1482		Subsample B *n* = 1499		Study Sample *N* = 2981	
Hinduism	**15**	**51.72%**	**14**	**48.28%**	**29**	**0.97%**
Buddhism	**24**	**47.06%**	**27**	**52.94%**	**51**	**1.71%**
Wiccan/Pagan	**21**	**44.68%**	**26**	**55.32%**	**47**	**1.58%**
Religious Importance						
Not important at all	37	46.84%	42	53.16%	79	2.65%
Slightly important	232	53.95%	198	46.05%	430	14.42%
Moderately important	321	47.00%	362	53.00%	683	22.91%
Highly important	890	49.89%	894	50.11%	1784	59.85%
Religious Attendance						
Never	75	52.08%	69	47.92%	144	4.83%
Less than once a year	75	45.18%	91	54.82%	166	5.57%
Once or twice a year	228	50.11%	227	49.89%	455	15.26%
About once a month	261	50.10%	260	49.90%	521	17.48%
Once a week or more	842	49.76%	850	50.24%	1692	56.76%

Note. Subsample A will be submitted to exploratory factor analyses (EFA) and Subsample B will be submitted confirmatory factor analyses (CFA).

Table C6

AGI Inter-Item Polychoric and Pearson Correlations

	Item Label	1	2	3	4	5	6	7	8
1	I worry a lot about my relationship with God.	—	−.16	.31	−.19	.25	−.08	.20	−.19
2	I just don't feel a deep need to be close to God.	−.17	—	.07	.45	.16	.18	.20	.46
3	If I can't see God working in my life, I get upset or angry.	.35	.13	—	−.07	.48	−.06	.40	−.05
4	I am totally dependent upon God for everything in my life. (R)	−.23	.53	−.09	—	−.04	.16	.05	.46
5	I am jealous at how God seems to care more for others than for me.	.30	.24	.56	−.05	—	−.01	.70	.03
6	It is uncommon for me to cry when sharing with God.	−.09	.23	−.05	.18	.00	—	.01	.28
7	Sometimes I feel that God loves others more than me.	.23	.28	.48	.05	.77	.03	—	.07
8	My experiences with God are very intimate and emotional. (R)	−.20	.52	−.05	.51	.05	.32	.10	—
9	I am jealous at how close some people are to God.	.41	.00	.40	−.12	.51	−.02	.45	−.06
10	I prefer not to depend too much on God.	−.15	.68	.06	.65	.18	.25	.25	.50
11	I often worry about whether God is pleased with me.	.58	−.20	.32	−.22	.28	−.08	.25	−.28
12	I am uncomfortable being emotional in my communication with God.	.06	.41	.21	.21	.31	.33	.34	.37
13	Even if I fail, I never question that God is pleased with me. (R)	.18	.07	.18	.11	.17	−.12	.20	.11
14	My prayers to God are often matter-of-fact and not very personal.	.05	.35	.12	.17	.23	.29	.25	.33
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold".	.38	.17	.39	−.03	.43	.02	.40	.01
16	I am uncomfortable with emotional displays of affection to God.	.05	.42	.19	.26	.28	.30	.30	.36
17	I fear God does not accept me when I do wrong.	.36	.20	.41	.04	.46	−.01	.49	.05
18	Without God I couldn't function at all. (R)	−.28	.60	−.07	.68	.02	.19	.11	.55
19	I often feel angry with God for not responding to me when I want.	.27	.16	.59	−.04	.59	−.03	.53	.02
20	I believe people should not depend on God for things they should do for themselves.	−.11	.44	−.03	.46	.02	.21	.10	.28
21	I crave reassurance from God that God loves me.	.41	−.30	.35	−.36	.30	−.13	.26	−.38
22	Daily I discuss all of my problems and concerns with God. (R)	−.15	.55	−.07	.62	.02	.21	.12	.55
23	I am jealous when others feel God's presence when I cannot.	.39	.01	.48	−.12	.55	−.05	.49	−.05
24	I am uncomfortable allowing God to control every aspect of my life.	.01	.44	.18	.38	.25	.16	.28	.26
25	I worry a lot about damaging my relationship with God.	.57	−.22	.33	−.25	.28	−.12	.23	−.29
26	My prayers to God are very emotional. (R)	−.20	.36	−.09	.38	−.06	.38	.01	.62
27	I get upset when I feel God helps others, but forgets about me.	.26	.20	.53	.04	.70	−.03	.66	.04
28	I let God make most of the decisions in my life. (R)	−.22	.45	−.08	.64	−.05	.17	.02	.47

Table C6 (continued)

	Item Label	9	10	11	12	13	14	15	16
1	I worry a lot about my relationship with God.	.36	−.13	.52	.06	.17	.04	.34	.05
2	I just don't feel a deep need to be close to God.	−.02	.60	−.18	.32	.05	.28	.12	.34
3	If I can't see God working in my life, I get upset or angry.	.35	.04	.29	.17	.16	.09	.34	.15
4	I am totally dependent upon God for everything in my life. (R)	−.10	.59	−.19	.18	.09	.15	−.02	.23
5	I am jealous at how God seems to care more for others than for me.	.43	.14	.24	.25	.14	.19	.36	.22
6	It is uncommon for me to cry when sharing with God.	−.02	.22	−.07	.28	−.10	.26	.01	.26
7	Sometimes I feel that God loves others more than me.	.38	.20	.21	.28	.18	.21	.33	.24
8	My experiences with God are very intimate and emotional. (R)	−.07	.45	−.26	.30	.10	.28	.00	.31
9	I am jealous at how close some people are to God.	—	−.02	.39	.16	.15	.12	.37	.16
10	I prefer not to depend too much on God.	−.02	—	−.14	.34	.06	.30	.10	.36
11	I often worry about whether God is pleased with me.	.44	−.16	—	.06	.24	.03	.30	.03
12	I am uncomfortable being emotional in my communication with God.	.20	.40	.05	—	.03	.39	.24	.51
13	Even if I fail, I never question that God is pleased with me. (R)	.17	.07	.27	.04	—	.01	.13	.06
14	My prayers to God are often matter-of-fact and not very personal.	.14	.34	.03	.45	.01	—	.25	.36
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold".	.42	.12	.33	.28	.14	.29	—	.25
16	I am uncomfortable with emotional displays of affection to God.	.19	.42	.03	.58	.07	.42	.30	—
17	I fear God does not accept me when I do wrong.	.35	.18	.45	.31	.32	.27	.44	.31
18	Without God I couldn't function at all. (R)	−.16	.65	−.31	.27	.09	.23	−.04	.32
19	I often feel angry with God for not responding to me when I want.	.41	.14	.28	.29	.16	.23	.42	.26
20	I believe people should not depend on God for things they should do for themselves.	−.10	.58	−.08	.26	.00	.24	.04	.34
21	I crave reassurance from God that God loves me.	.37	−.30	.48	−.03	.12	.02	.28	−.08
22	Daily I discuss all of my problems and concerns with God. (R)	−.05	.57	−.19	.27	.15	.24	.05	.32
23	I am jealous when others feel God's presence when I cannot.	.70	.00	.39	.23	.17	.17	.42	.21
24	I am uncomfortable allowing God to control every aspect of my life.	.18	.52	.01	.37	.13	.23	.23	.39
25	I worry a lot about damaging my relationship with God.	.42	−.21	.61	.06	.20	.03	.38	.04
26	My prayers to God are very emotional. (R)	−.11	.36	−.22	.33	.10	.39	−.04	.34
27	I get upset when I feel God helps others, but forgets about me.	.49	.20	.28	.31	.20	.25	.43	.28
28	I let God make most of the decisions in my life. (R)	−.11	.56	−.19	.18	.15	.17	−.06	.23

Table C6 (continued)

	Item Label	17	18	19	20	21	22	23	24
1	I worry a lot about my relationship with God.	.32	−.25	.23	−.09	.37	−.13	.35	.01
2	I just don't feel a deep need to be close to God.	.14	.53	.12	.37	−.26	.47	−.01	.37
3	If I can't see God working in my life, I get upset or angry.	.35	−.07	.52	−.03	.31	−.06	.43	.15
4	I am totally dependent upon God for everything in my life. (R)	.04	.62	−.03	.42	−.32	.57	−.10	.34
5	I am jealous at how God seems to care more for others than for me.	.39	.00	.51	.02	.26	.01	.47	.20
6	It is uncommon for me to cry when sharing with God.	−.02	.16	−.03	.19	−.12	.18	−.04	.14
7	Sometimes I feel that God loves others more than me.	.42	.08	.45	.08	.22	.10	.42	.23
8	My experiences with God are very intimate and emotional. (R)	.03	.50	.00	.26	−.35	.51	−.06	.22
9	I am jealous at how close some people are to God.	.30	−.15	.36	−.09	.33	−.04	.64	.15
10	I prefer not to depend too much on God.	.14	.59	.11	.52	−.27	.51	−.01	.47
11	I often worry about whether God is pleased with me.	.39	−.28	.25	−.06	.43	−.17	.35	.02
12	I am uncomfortable being emotional in my communication with God.	.25	.21	.24	.22	−.02	.24	.19	.32
13	Even if I fail, I never question that God is pleased with me. (R)	.28	.08	.14	.00	.11	.13	.15	.11
14	My prayers to God are often matter-of-fact and not very personal.	.22	.19	.20	.21	.03	.21	.15	.20
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold".	.38	−.05	.37	.04	.26	.04	.38	.20
16	I am uncomfortable with emotional displays of affection to God.	.25	.26	.21	.29	−.07	.28	.18	.33
17	I fear God does not accept me when I do wrong.	—	.01	.38	.11	.27	.08	.33	.19
18	Without God I couldn't function at all. (R)	.03	—	−.03	.42	−.40	.54	−.14	.31
19	I often feel angry with God for not responding to me when I want.	.44	−.01	—	.04	.30	−.02	.46	.22
20	I believe people should not depend on God for things they should do for themselves.	.13	.48	.04	—	−.18	.34	−.03	.32
21	I crave reassurance from God that God loves me.	.31	−.44	.34	−.21	—	−.35	.41	−.04
22	Daily I discuss all of my problems and concerns with God. (R)	.09	.60	−.03	.39	−.39	—	−.07	.32
23	I am jealous when others feel God's presence when I cannot.	.39	−.15	.53	−.04	.45	−.09	—	.16
24	I am uncomfortable allowing God to control every aspect of my life.	.22	.37	.26	.37	−.04	.36	.19	—
25	I worry a lot about damaging my relationship with God.	.43	−.34	.28	−.15	.48	−.23	.43	.01
26	My prayers to God are very emotional. (R)	−.01	.42	−.05	.26	−.30	.47	−.11	.22
27	I get upset when I feel God helps others, but forgets about me.	.47	.05	.66	.08	.33	.04	.62	.31
28	I let God make most of the decisions in my life. (R)	.02	.60	−.04	.44	−.35	.59	−.12	.39

Table C6 (continued)

	Item Label	25	26	27	28
1	I worry a lot about my relationship with God.	.52	−.17	.22	−.19
2	I just don't feel a deep need to be close to God.	−.19	.31	.14	.39
3	If I can't see God working in my life, I get upset or angry.	.30	−.08	.47	−.06
4	I am totally dependent upon God for everything in my life. (R)	−.21	.34	.04	.58
5	I am jealous at how God seems to care more for others than for me.	.23	−.06	.62	−.04
6	It is uncommon for me to cry when sharing with God.	−.10	.35	−.03	.15
7	Sometimes I feel that God loves others more than me.	.20	.00	.59	.02
8	My experiences with God are very intimate and emotional. (R)	−.26	.57	.02	.43
9	I am jealous at how close some people are to God.	.37	−.10	.42	−.10
10	I prefer not to depend too much on God.	−.19	.32	.16	.50
11	I often worry about whether God is pleased with me.	.55	−.20	.24	−.17
12	I am uncomfortable being emotional in my communication with God.	.06	.28	.25	.15
13	Even if I fail, I never question that God is pleased with me. (R)	.18	.08	.18	.14
14	My prayers to God are often matter-of-fact and not very personal.	.03	.34	.21	.15
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold".	.34	−.04	.37	−.05
16	I am uncomfortable with emotional displays of affection to God.	.04	.29	.22	.20
17	I fear God does not accept me when I do wrong.	.39	−.01	.40	.01
18	Without God I couldn't function at all. (R)	−.30	.38	.03	.55
19	I often feel angry with God for not responding to me when I want.	.25	−.05	.58	−.03
20	I believe people should not depend on God for things they should do for themselves.	−.13	.23	.07	.39
21	I crave reassurance from God that God loves me.	.43	−.27	.29	−.31
22	Daily I discuss all of my problems and concerns with God. (R)	−.20	.42	.03	.54
23	I am jealous when others feel God's presence when I cannot.	.38	−.09	.54	−.10
24	I am uncomfortable allowing God to control every aspect of my life.	.01	.19	.25	.35
25	I worry a lot about damaging my relationship with God.	—	−.27	.29	−.23
26	My prayers to God are very emotional. (R)	−.30	—	−.08	.38
27	I get upset when I feel God helps others, but forgets about me.	.33	−.09	—	−.02
28	I let God make most of the decisions in my life. (R)	−.26	.42	−.03	—

Note. Bottom triangle is polychoric correlations (r_{xy}); top triangle is Pearson product-moment correlations (r_{pc}); (R) = Reverse-scored item.

Table C7

Between-Group Comparison

Independent Variable	***F***	df	Mean Square	*p*-value	partial η^2
Age	2223	1	.109	.741	<.001
Gender	2223	1	1.084	.298	<.001
Sexual Orientation	2223	1	.019	.891	<.001
Ethnic Identity	2223	1	3.145	.076	.001
Estimated Parental Income	2223	1	.112	.738	.000
Growing Up Environment	2223	1	2.294	.130	.001
Religious Denomination	2223	1	1.601	.206	.001
Religious Attendance	2223	1	.027	.869	.000
Religious Importance	2223	1	.243	.559	.000

Figure C2

Alternative Model Configuration, Unidimensional Models

Model 1a

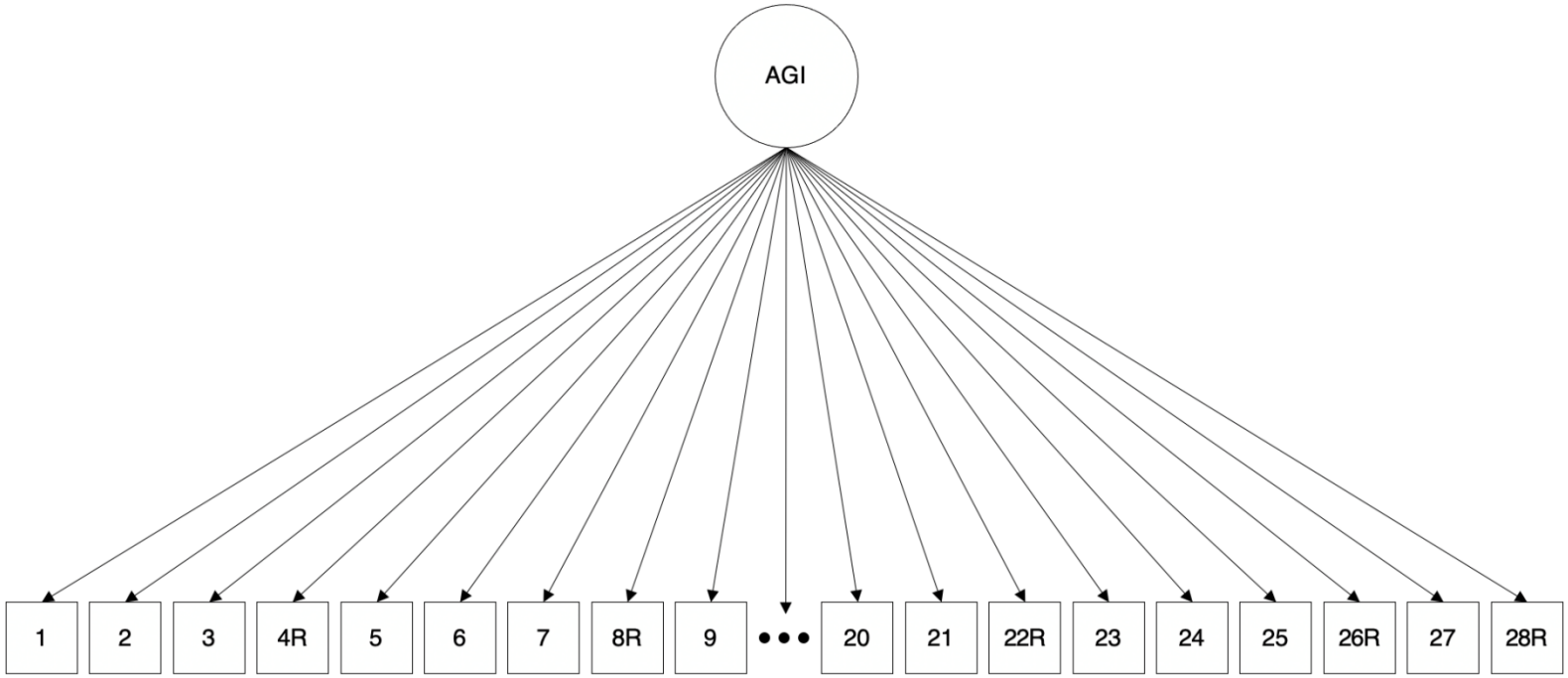

Figure C2 (continued)

Model 1b

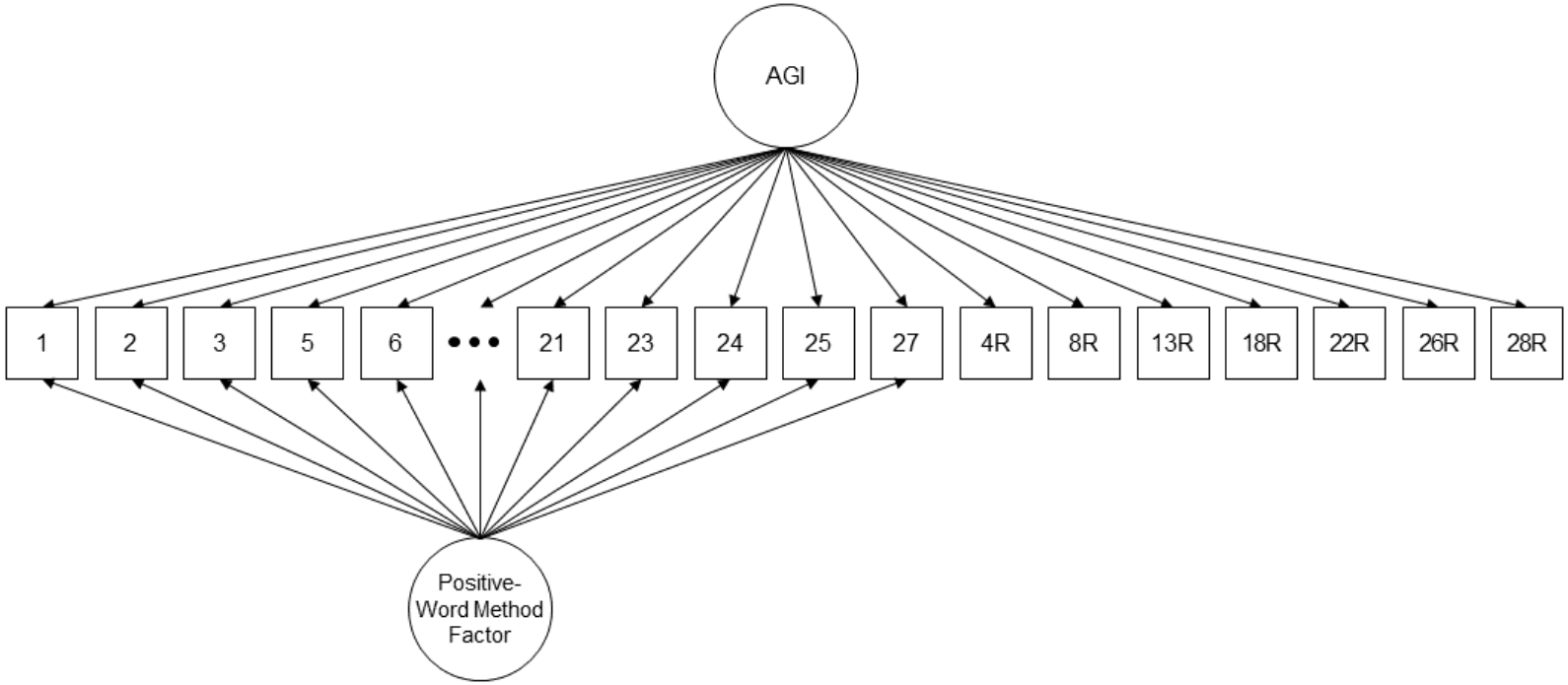

Figure C2 (continued)

Model 1c

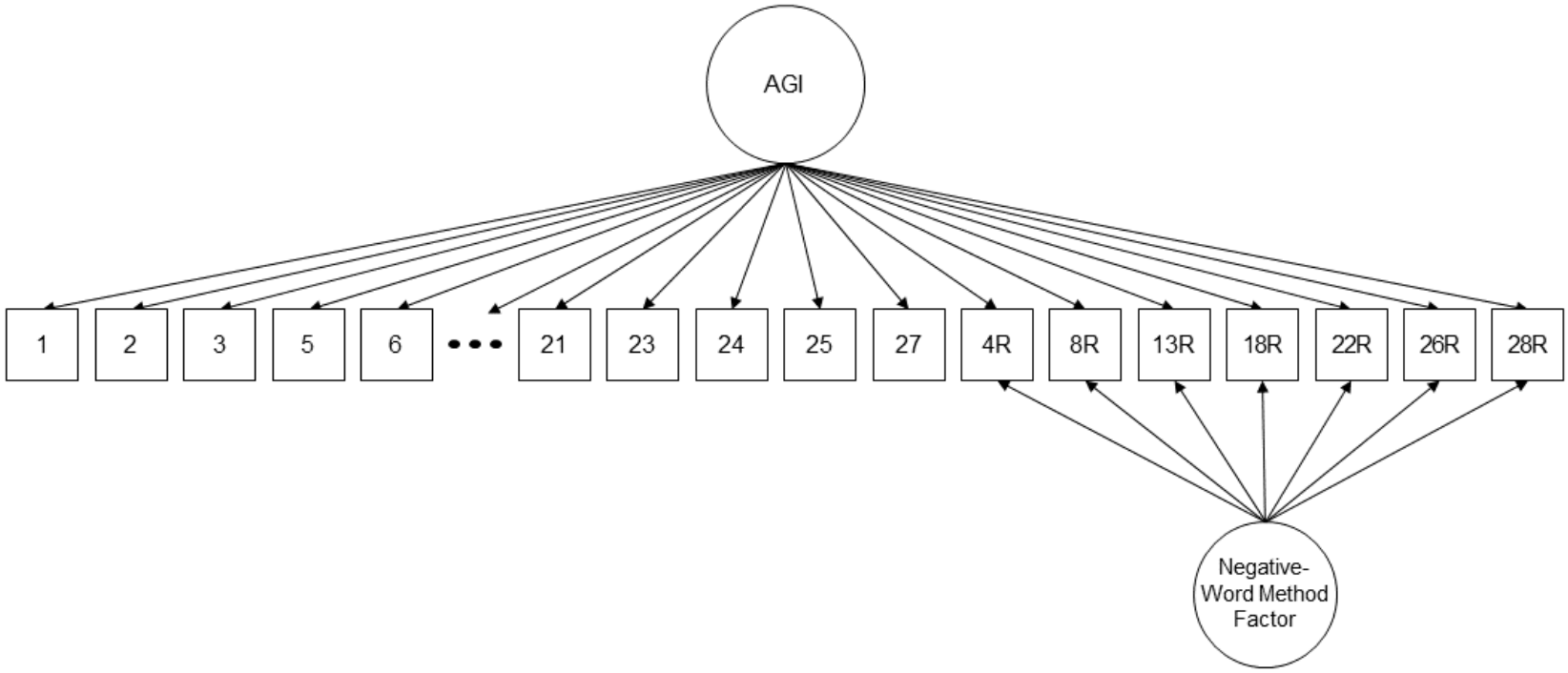

Figure C2 (continued)

Model 1d

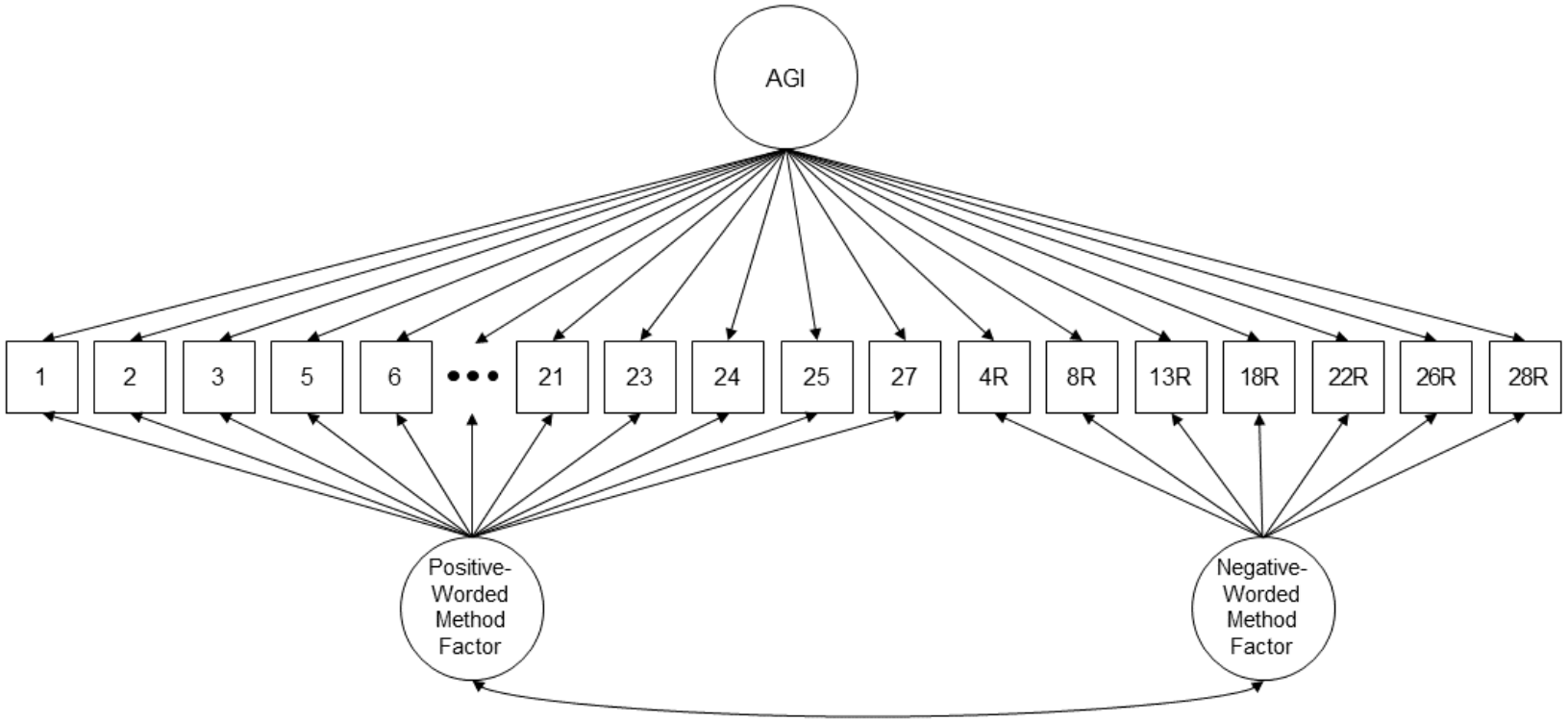

Figure C2 (continued)

Model 1e

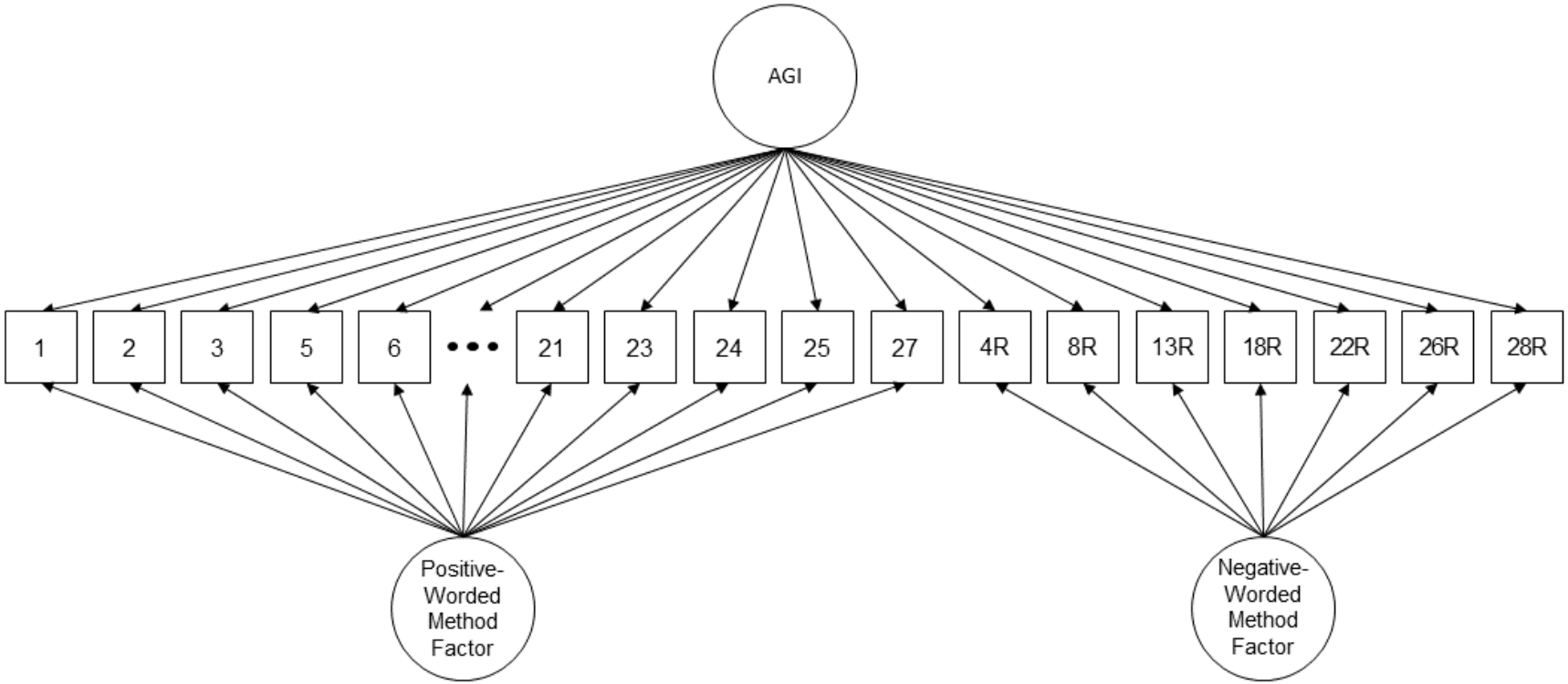

Figure C3

Alternative Model Configuration, Uncorrelated Two-Factor Models

Model 3a

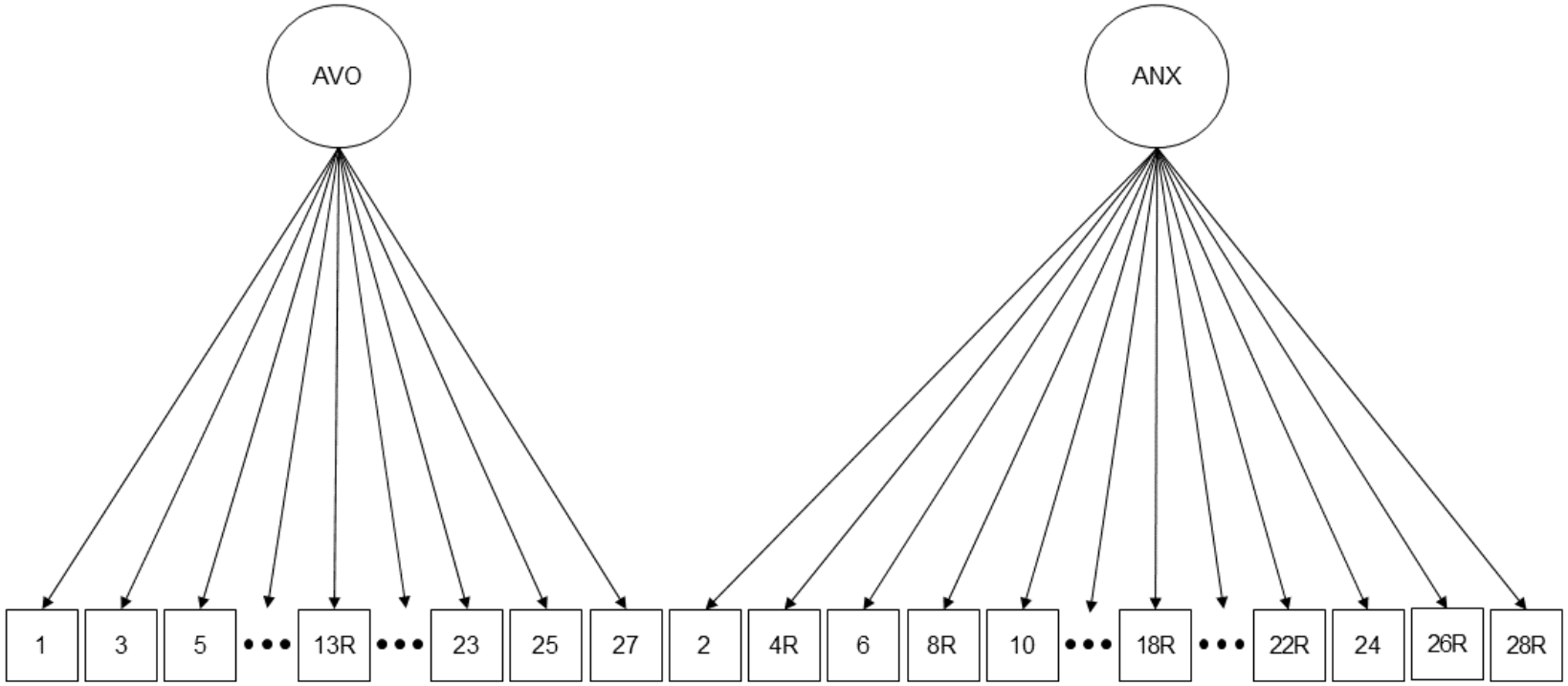

Figure C3 (continued)

Model 3b

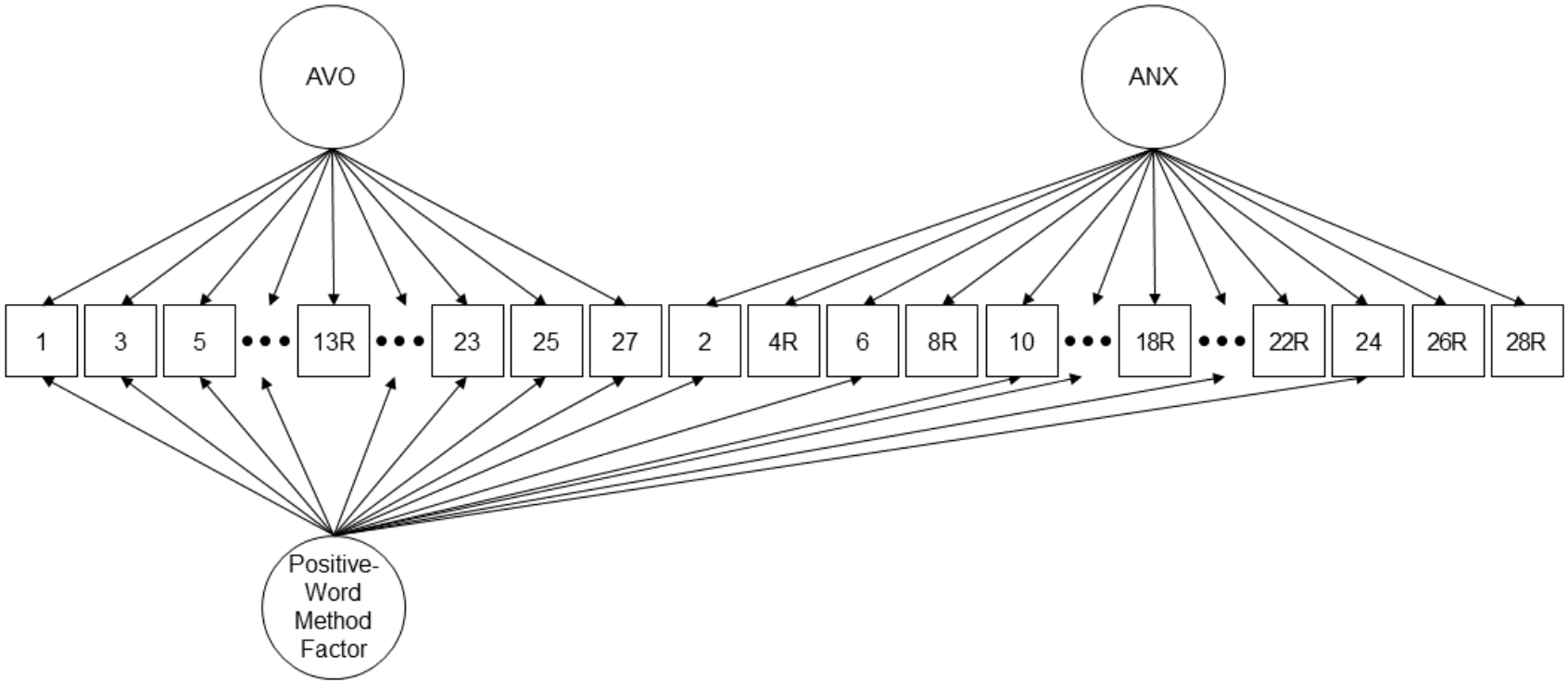

Figure C3 (continued)

Model 3c

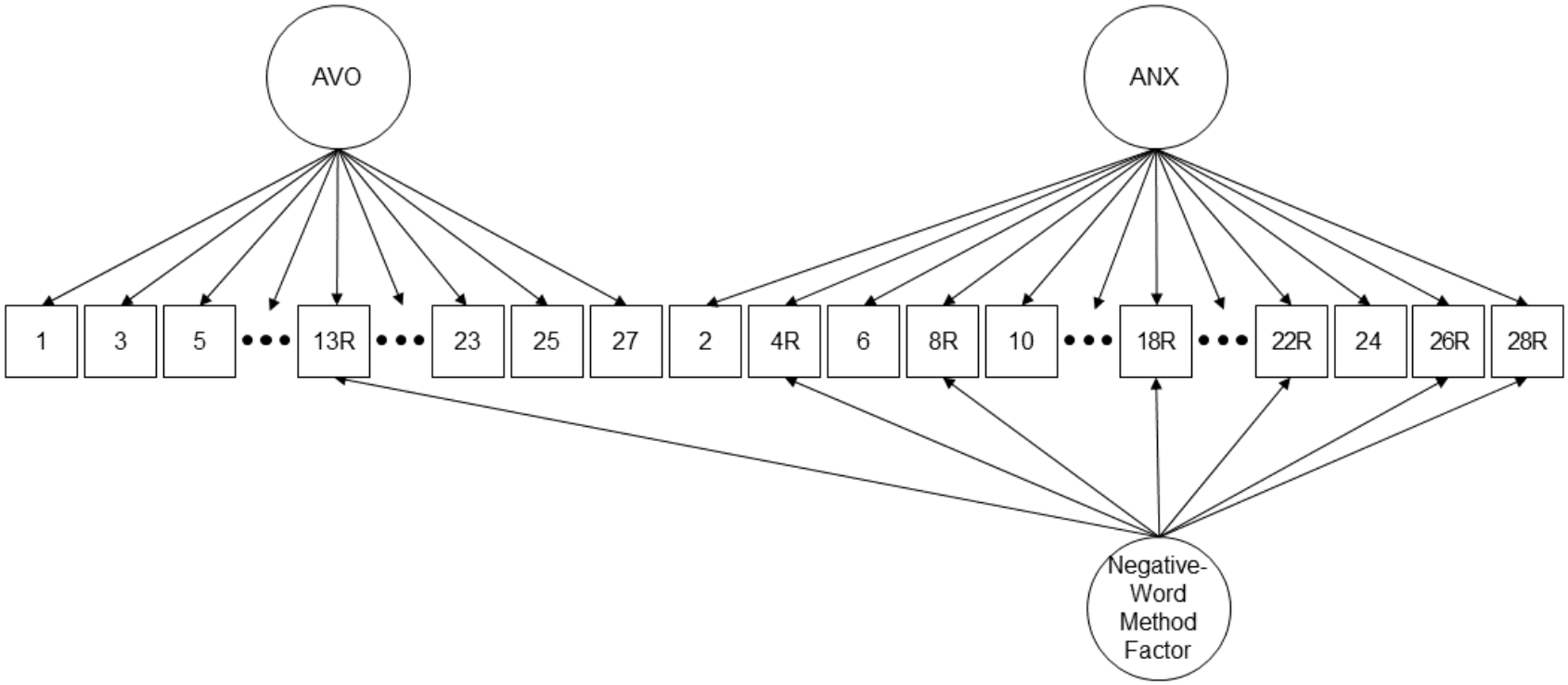

Figure C3 (continued)

Model 3d

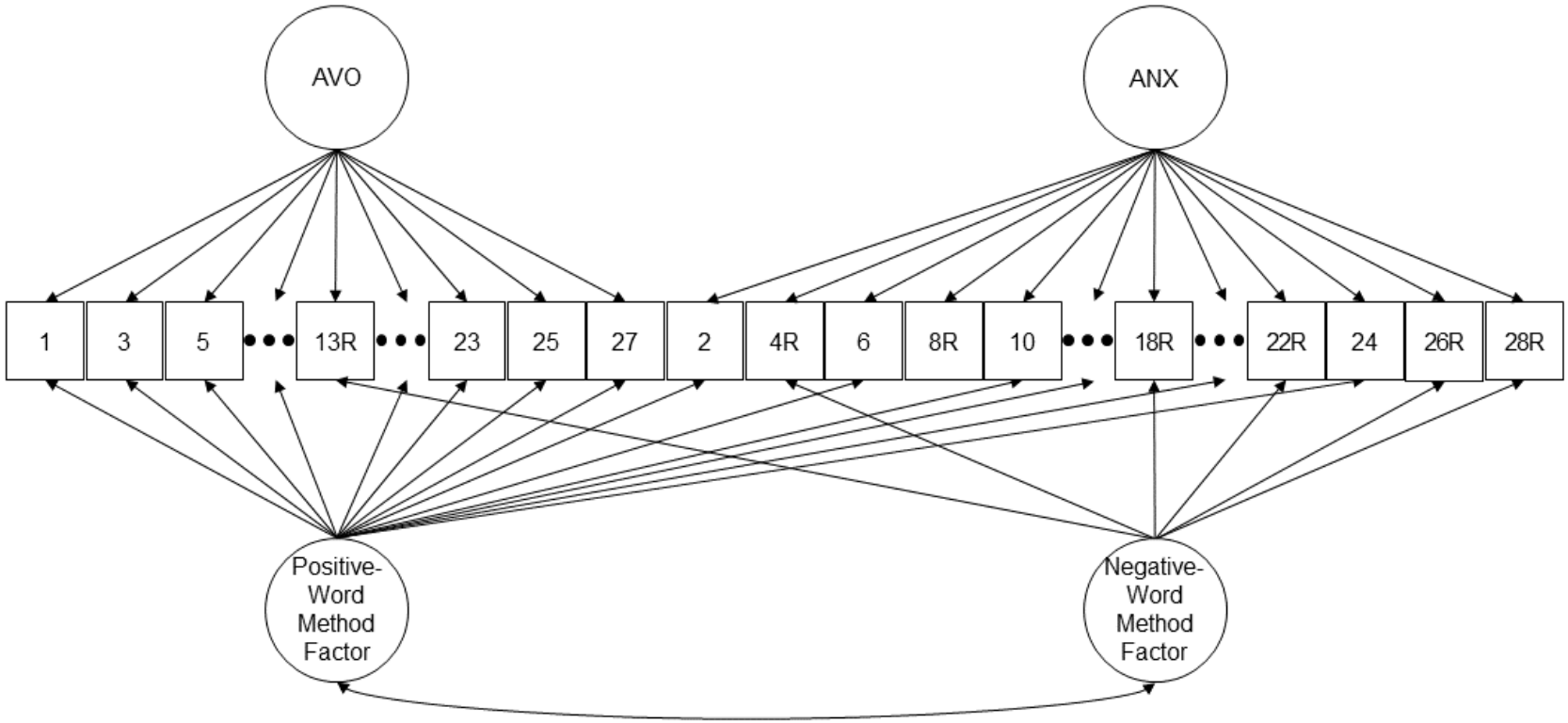

Figure C3 (continued)

Model 3e

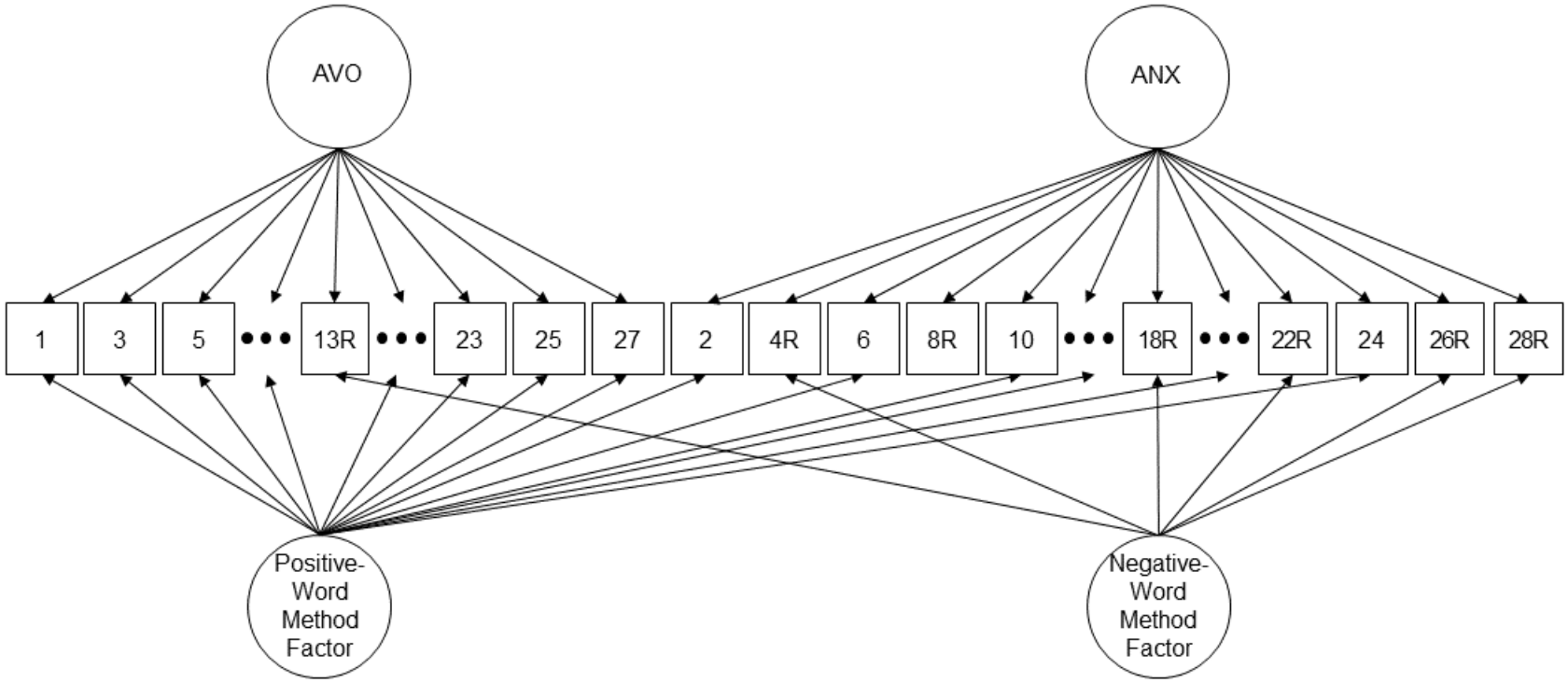

Figure C4

Alternative Model Configuration, Correlated Two-Factors Models

Model 2a

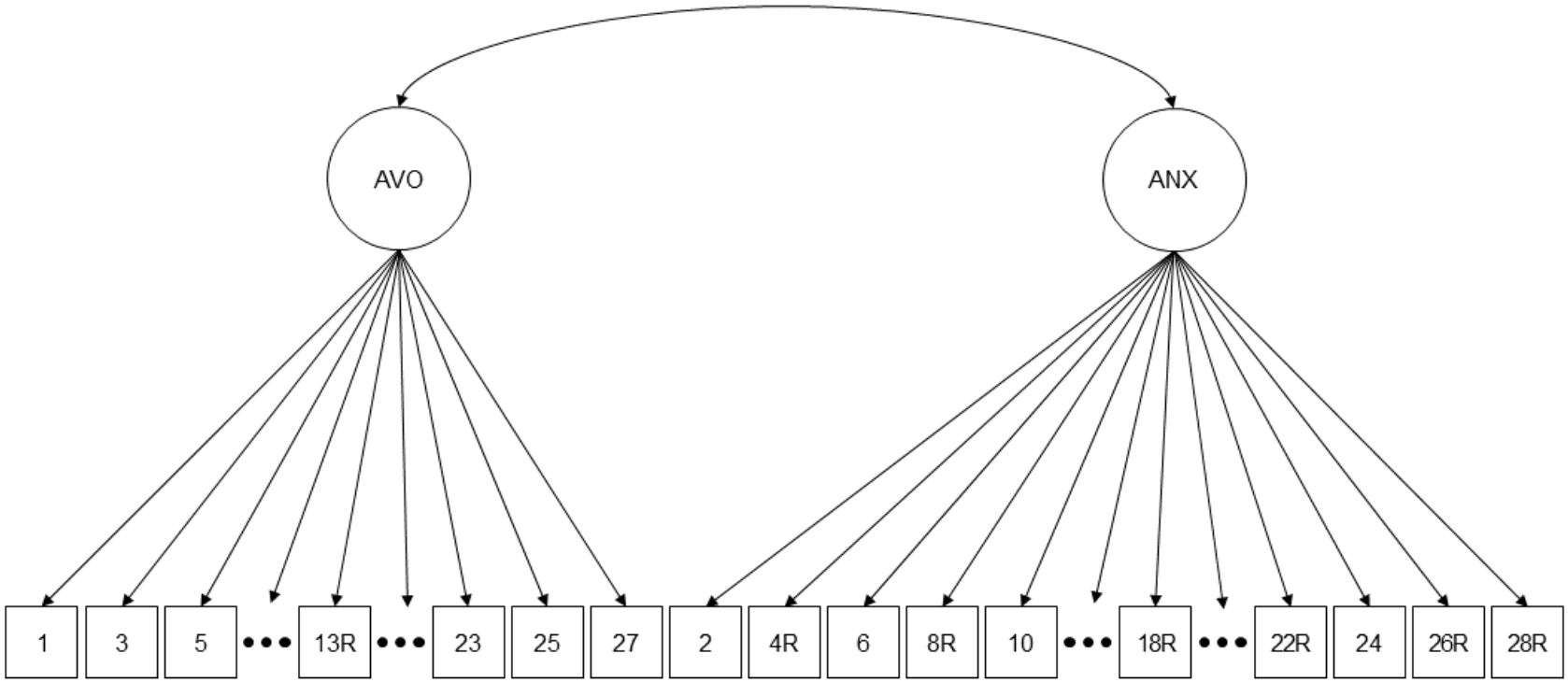

Figure C4 (continued)

Model 2b

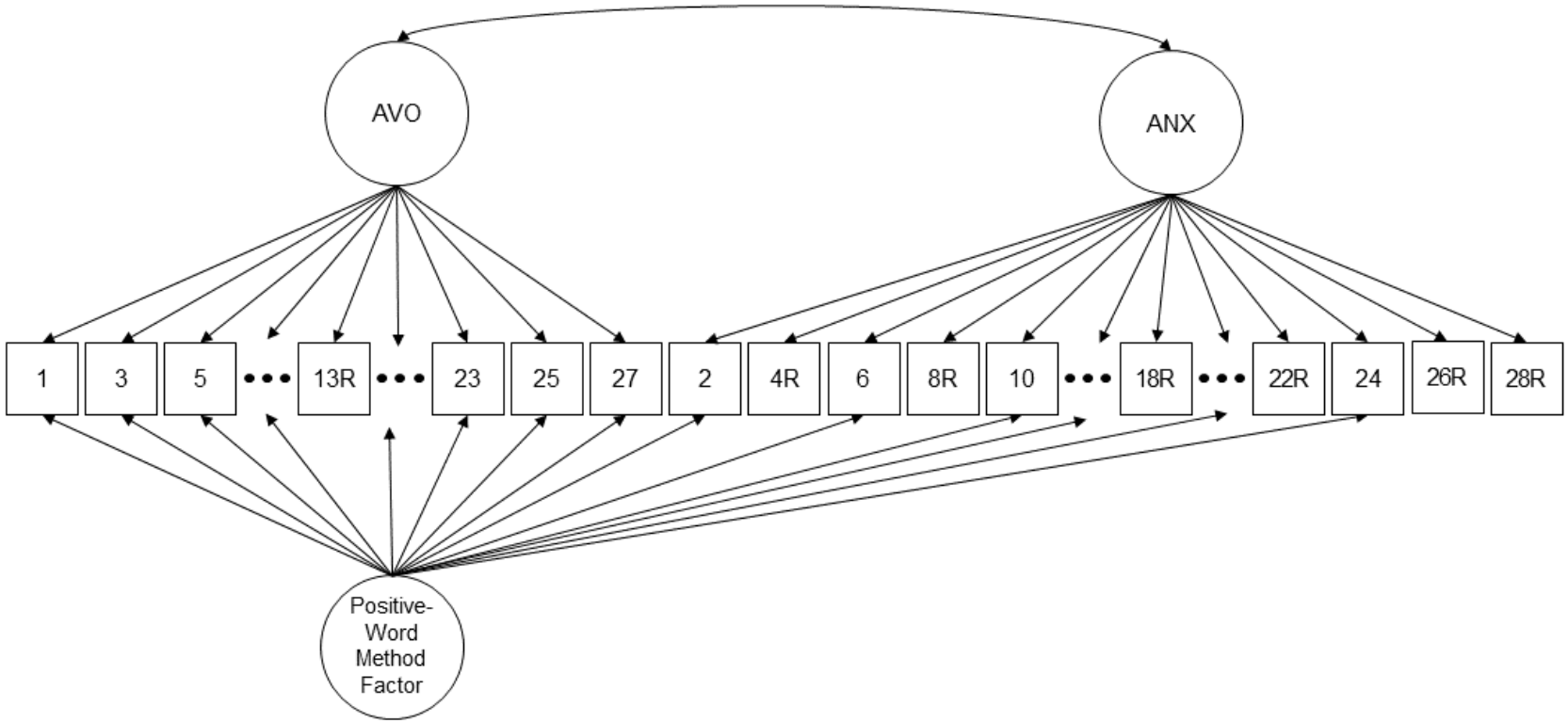

Figure C4 (continued)

Model 2c

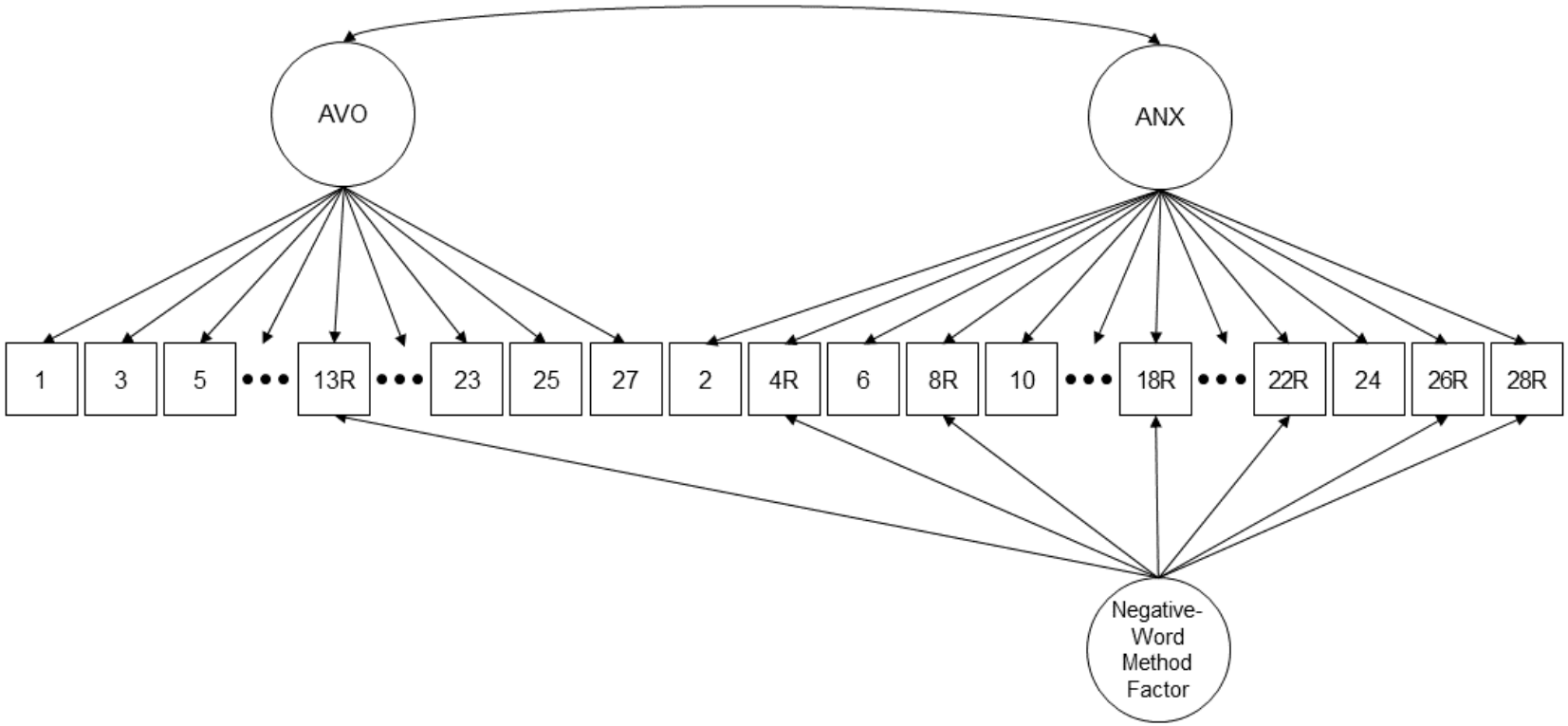

Figure C4 (continued)

Model 2d

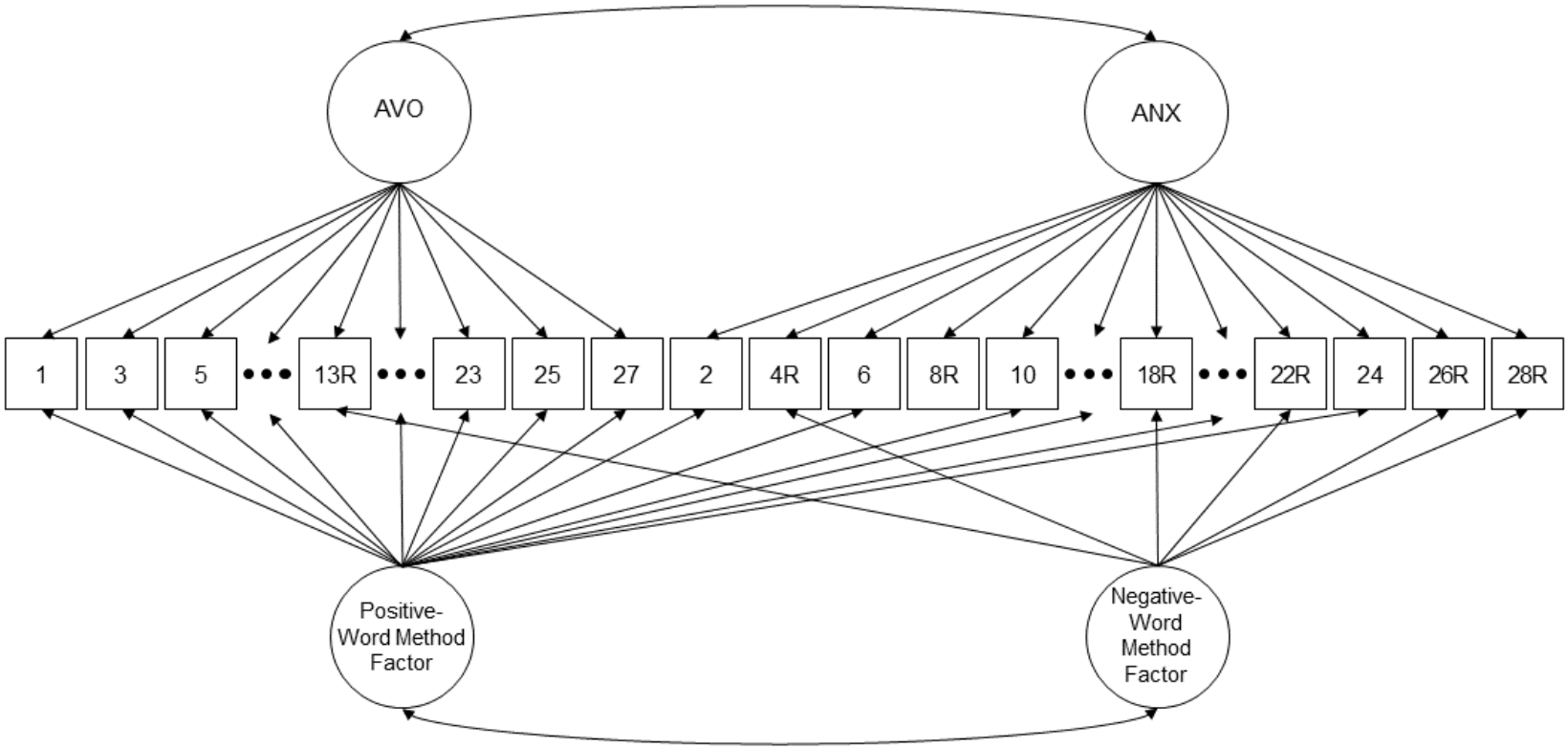

Figure C4 (continued)

Model 2e

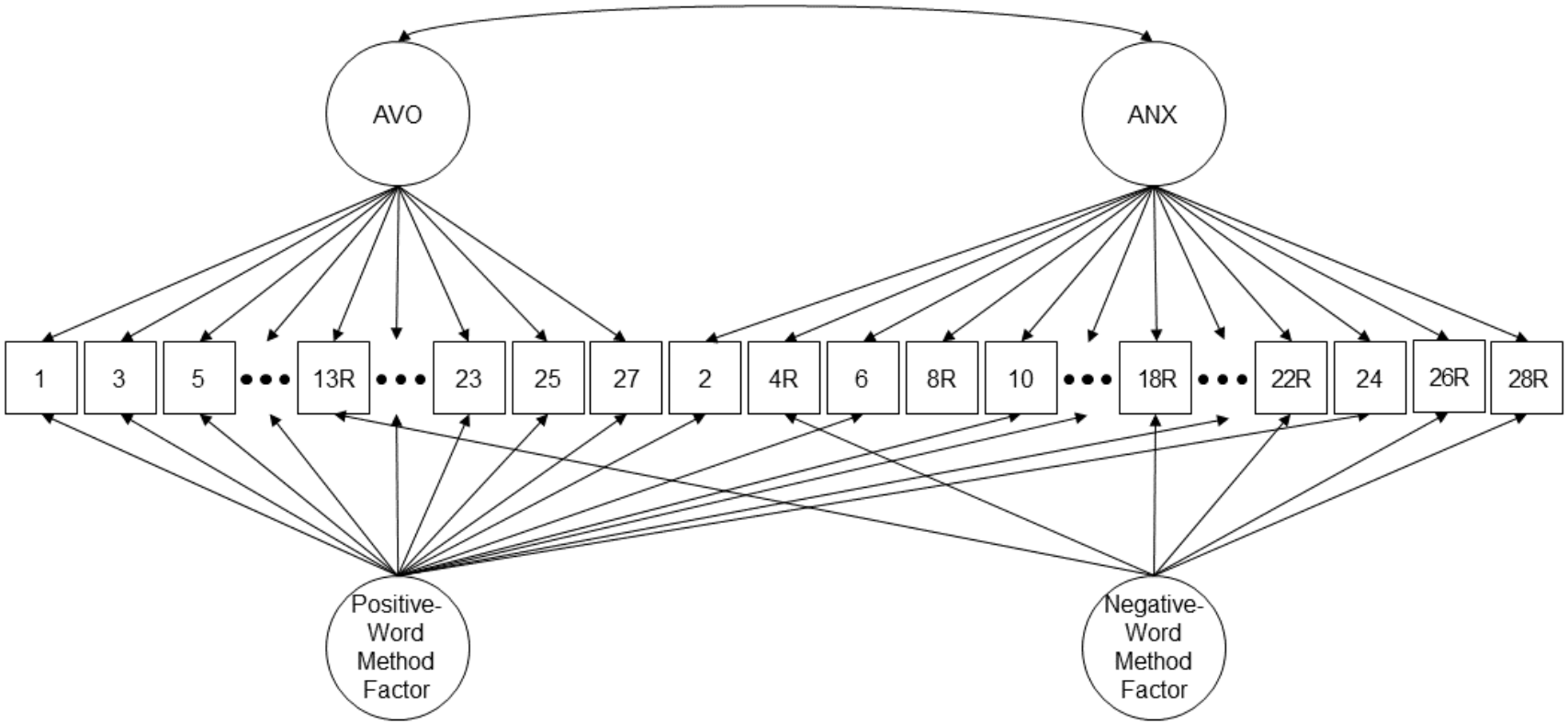

Figure C5

Alternative Model Configuration, Higher-Order Factor Models

Model 4a

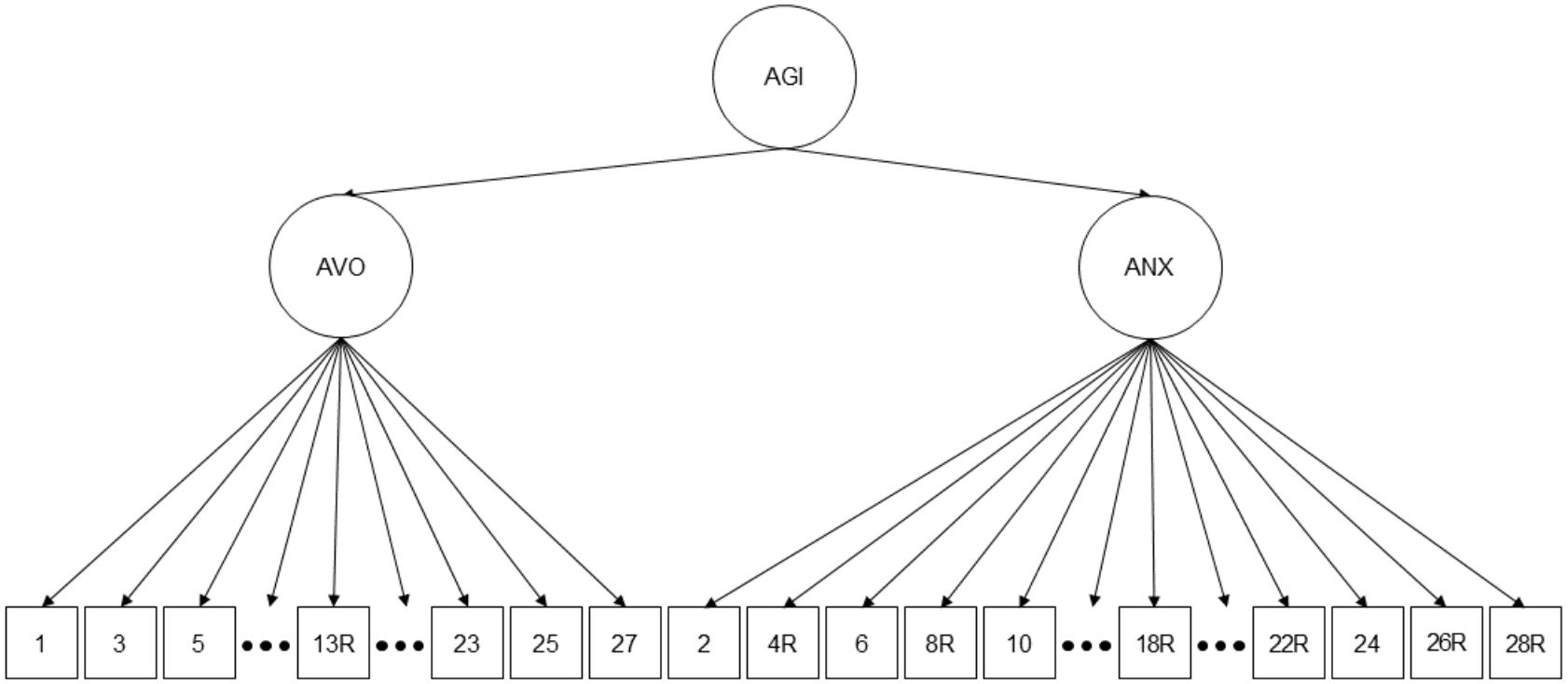

Figure C5 (continued)

Model 4b

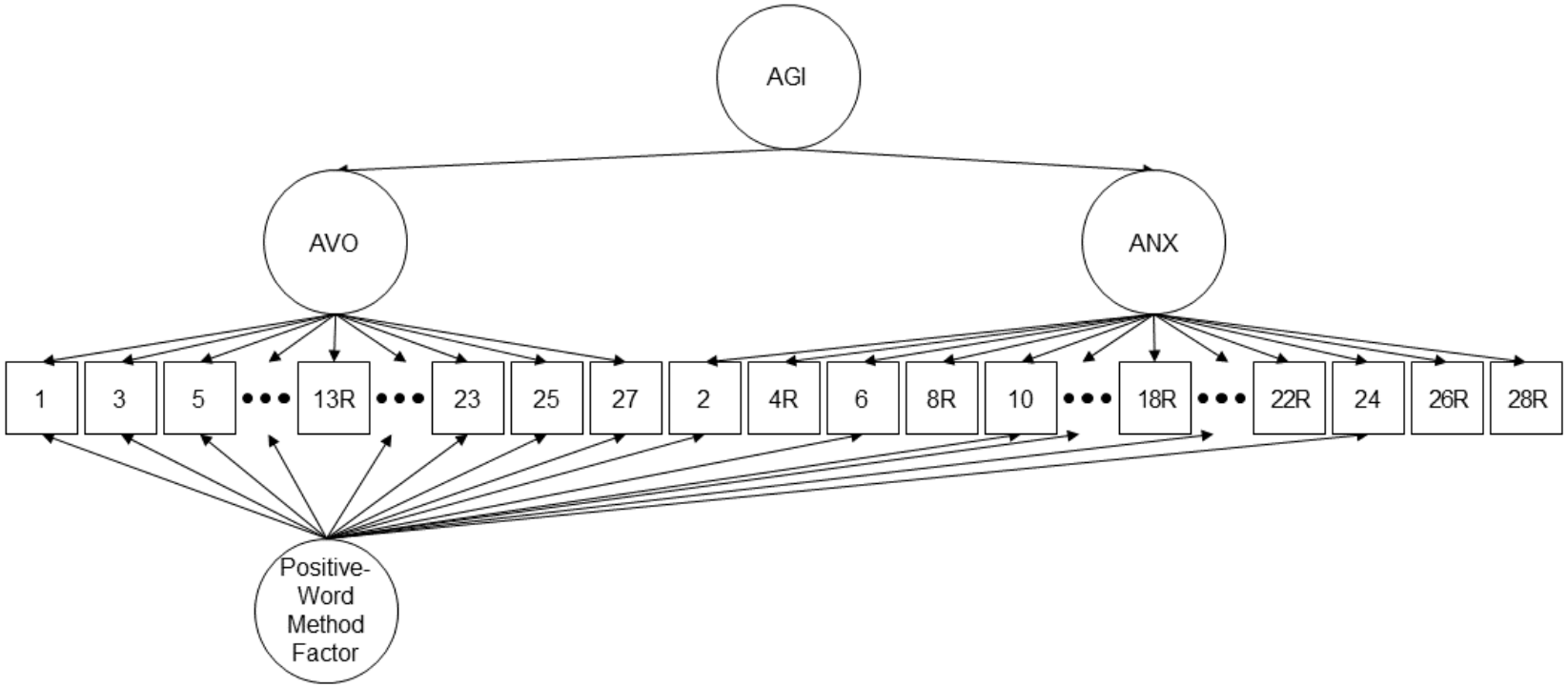

Figure C5 (continued)

Model 4c

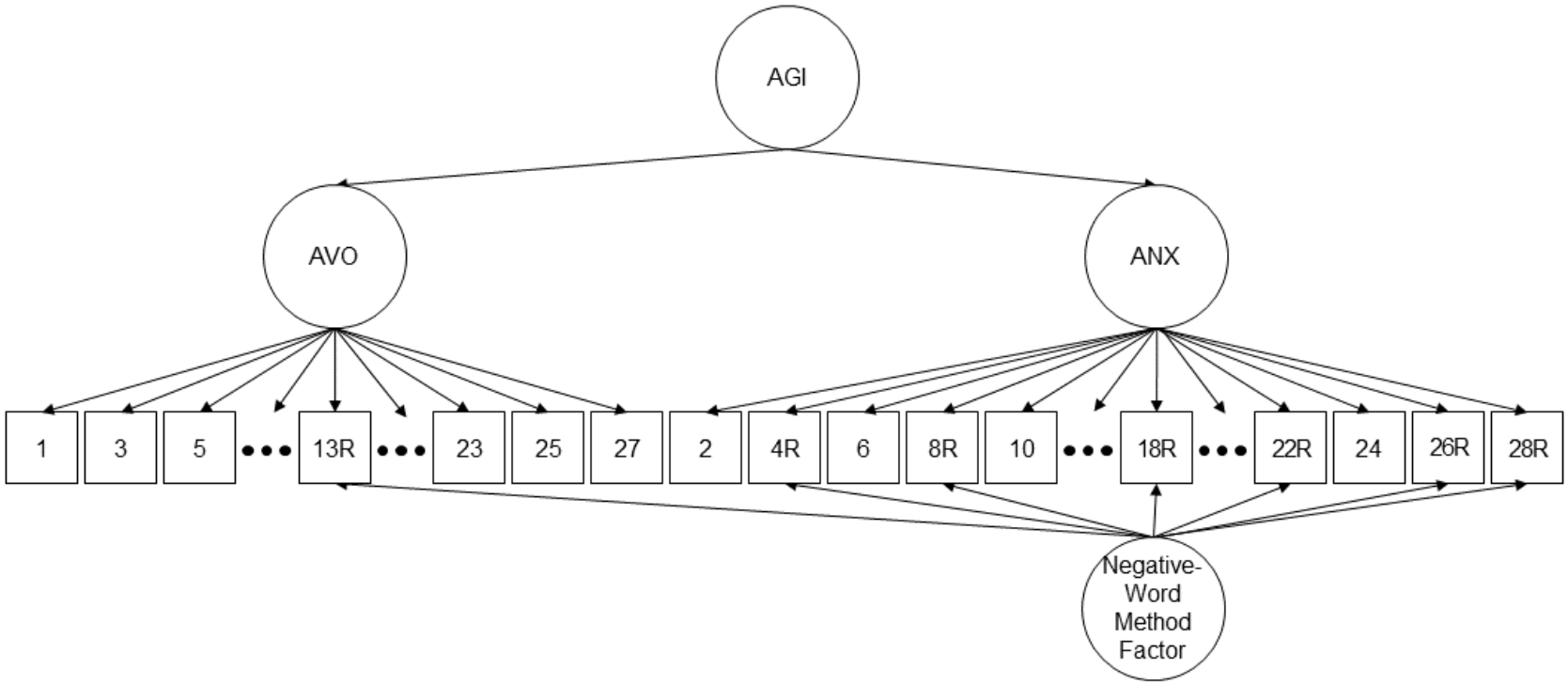

Figure C5 (continued)

Model 4d

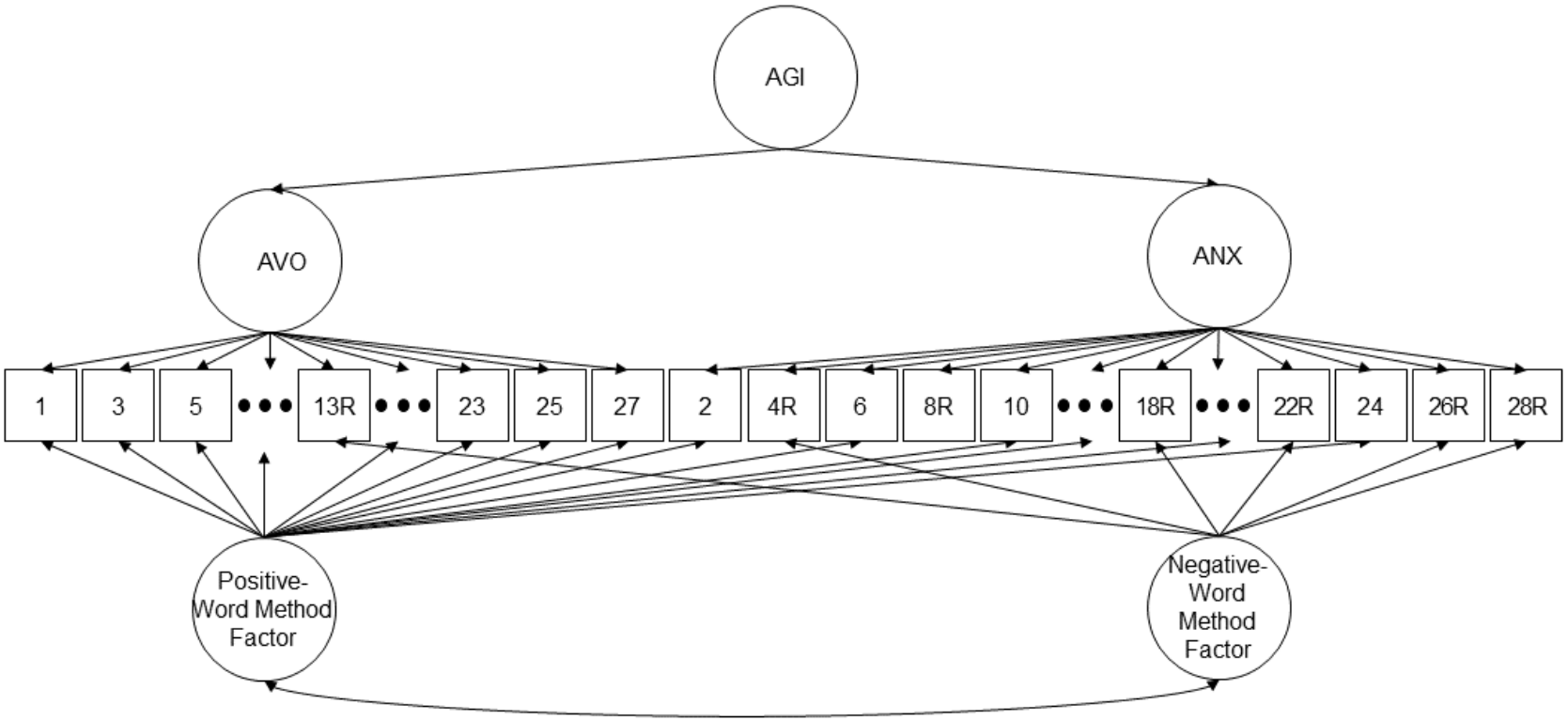

Figure C5 (continued)

Model 4e

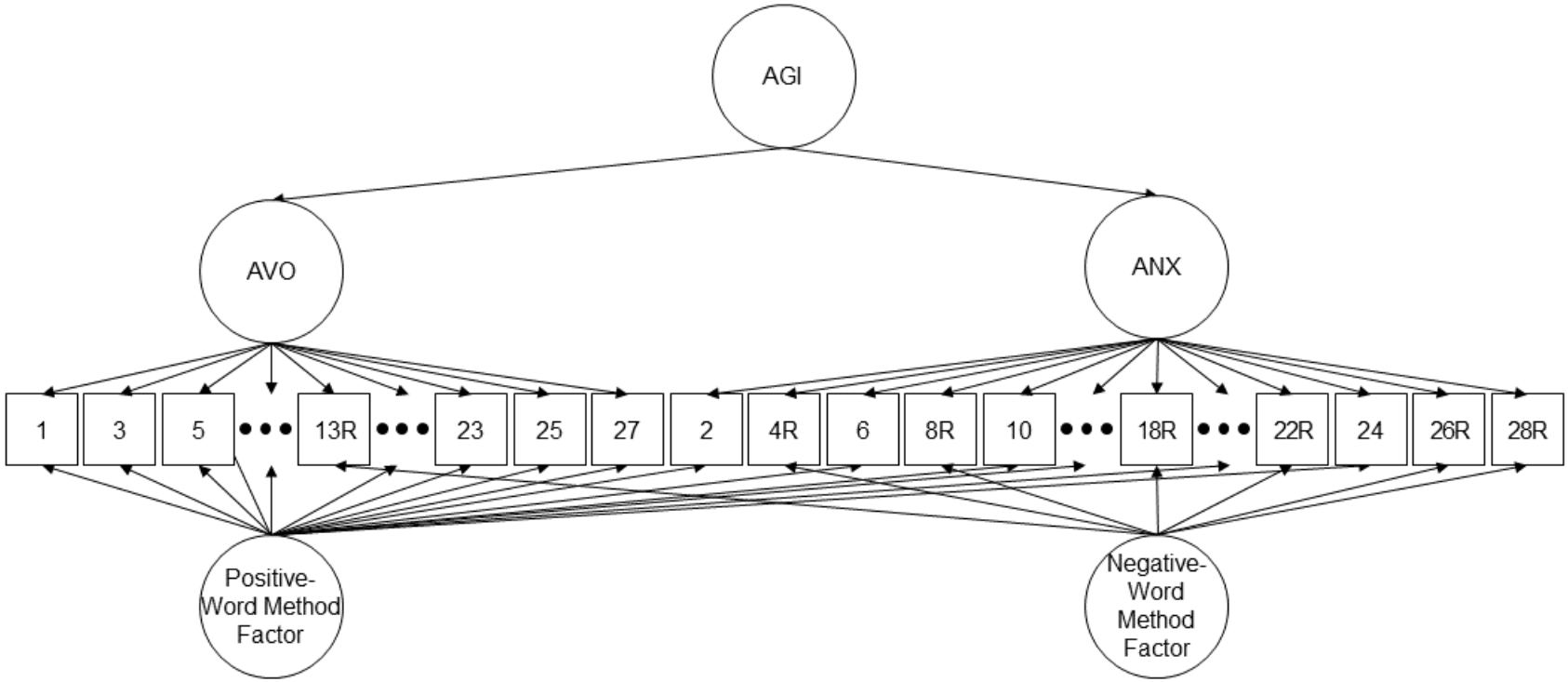

Figure C6

Model 5: Alternative Model Configuration, Bi-Factor Model

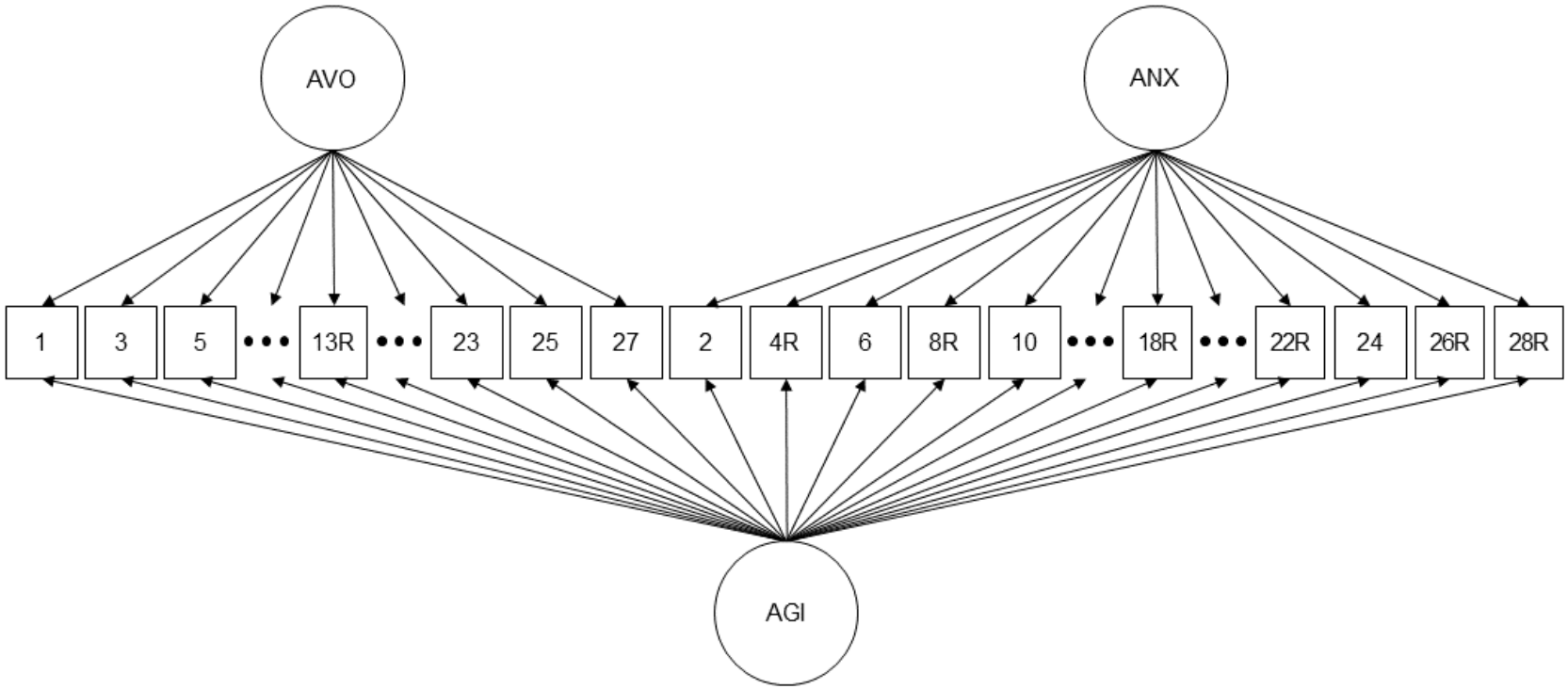

Table C8

Confirmatory Factor Analysis Results of Alternative Models of the AGI

Model	Model Specification	χ^2	*df*	RMSEA	CFI	TLI
Model 1a	Unidimensional Model	25978.426	350	.221 [.219–.223]	.418	.371
Model 1b	with positive method factor	6367.661	329	.111 [.108–.113]	.863	.842
Model 1c	with negative method factor	23848.313	343	.214 [212–.216]	.466	.411
Model 1d	with uncorrelated method factors	4991.194	321	.099 [.096–.101]	.894	.875
Model 1e	with correlated method factors	6106.444	320	.110 [.107–.112]	.869	.845
Model 2a	Correlated 2-Factor Model	11257.691	349	.144 [.142–.147]	.752	.832
Model 2b	with positive method factor	5650.328	328	.104 [.102–.106]	.879	.861
Model 2c	with negative method factor	11337.210	342	.146 [.144–.149]	.750	.724
Model 2d	with uncorrelated method factors	4904.344	321	.098 [.095–.100]	.896	.100
Model 2e	with correlated method factors	5801.570	320	.107 [.104–.109]	.875	.854
Model 3a	Uncorrelated 2-Factor Model	7816.697	350	.119 [.117–.122]	.830	.817
Model 3b	with positive method factor	5723.632	329	.105 [.102–.107]	.877	.859
Model 3c	with negative method factor	7697.198	343	.120 [.117–.122]	.833	.816
Model 3d	with uncorrelated method factors	5560.621	322	.104 [.102–.107]	.881	.860
Model 3e	with correlated method factors	5864.865	321	.107 [.105–.110]	.874	.852
Model 4a	Higher-Order Model	11257.69	349	.144 [.142–.147]	.752	.732
Model 4b	with positive method factor	5650.313	328	.104 [.102–.106]	.879	.861
Model 4c	with negative method factor	11337.209	342	.146 [.144–.149]	.750	.724
Model 4d	with uncorrelated method factors	4904.340	321	.098 [.095–.100]	.896	.877
Model 4e	with correlated method factors	5309.952	320	.102 [.100–.104]	.887	.866
Model 5	Bi-Factor Model	6148.774	322	.110 [.107–.112]	.868	.855

Table C9

Confirmatory Factor Analysis Results of Alternative Models of the AGI Using Christian-Only Subsample

Model	Model Specification	χ^2	*df*	RMSEA	CFI	TLI
Model 1a	Unidimensional Model	36280.613	350	.197 [95% CI: .195–.198]	.478	.436
Model 1b	with positive method factor	10988.729	329	.110 [95% CI: .109–.112]	.845	.822
Model 1c	with negative method factor	32964.747	343	.189 [95% CI: .188–.191]	.526	.477
Model 1d	with uncorrelated method factors	8303.843	321	.97 [95% CI: .095–.099]	.884	.863
Model 1e	with correlated method factors	10127.642	320	.107 [95% CI: .106–.109]	.857	.832
Model 2a	Correlated 2-Factor Model	16232.495	349	.131 [95% CI: .129–.133]	.769	.750
Model 2b	with positive method factor	9310.036	328	.102 [95% CI: .100–.103]	.869	.849
Model 2c	with negative method factor	16165.826	342	.132 [95% CI: .130–.134]	.770	.746
Model 2d	with uncorrelated method factors	7943.120	321	.095 [95% CI: .093–.096]	.889	.869
Model 2e	with correlated method factors	10031.062	320	.107 [95% CI: 1.05–.109]	.859	.833
Model 3a	Uncorrelated 2-Factor Model	11445.154	350	.109 [95% CI: .108–.111]	.839	.826
Model 3b	with positive method factor	6861.011	329	.086 [95% CI: .085–.088]	.905	.891
Model 3c	with negative method factor	11234.063	343	.109 [95% CI: .108–.111]	.842	.825
Model 3d	with uncorrelated method factors	6576.647	322	.086 [95% CI: .084–.087]	.909	.893
Model 3e	with correlated method factors	8816.951	321	.100 [95% CI: .098–.102]	.876	.855
Model 4a	Higher-Order Model	16232.495	349	.131 [95% CI: .129–.133]	.769	.750
Model 4b	with positive method factor	9309.978	328	.102 [95% CI: .100–.103]	.869	.849
Model 4c	with negative method factor	16165.823	342	.132 [95% CI: .130–.134]	.770	.746
Model 4d	with uncorrelated method factors	7954.087	321	.095 [95% CI: .093–.096]	.889	.869
Model 4e	with correlated method factors	8741.400	320	.100 [95% CI: .098–.101]	.878	.855
Model 5	Bi-Factor Model	9280.397	322	.102 [95% CI: .101–.104]	.870	.857

Table C10

Factor Retention Statistics for the Comparison Data, Hull Method, Very Simple Structure, and MAP Test

Factors	Comparison Data		Hull Method			Very Simple Structure		MAP	
	RMSR	*p*	GOF	*df*	CV	C^1	C^2	MAP^2	MAP^4
0	—	—	.000	378	0.00	—	—	.105	.025
1	.949	< .001	.574	350	1.459	.479	.000	.093	.016
2	.184	< .001	.953	323	22.447†	.810†	.960†	.018	.001
3	.147	< .001	.970	297	1.018	.696	.909	.016	.001
4	.080	< .001	.985	272	2.247	.567	.870	.013†	.001†
5	.073	< .001	.992	248	0.00	.537	.830	.014	.001
6	.058	< .001	—	—	—	.536	.836	.016	.001
7	.048†	< .001	—	—	—	.537	.782	.018	.001
8	.047	.383	—	—	—	.457	.782	.021	.002
9	—	—	—	—	—	.452	.769	.025	.003
10	—	—	—	—	—	.468	.742	.029	.004

Note. †Number of factors suggested to retain; RMSR = root-mean-square residual; GOF = Goodness of Fit; *df* = degrees of freedom; CV = scree test critical value; C^1 = 1st complexity value; C^2 = 2nd Complexity Value; MAP^2 = squared minimum average partial test; MAP^4 = fourth power minimum average partial test.

Figure C7

Scree Plot of Eigenvalues

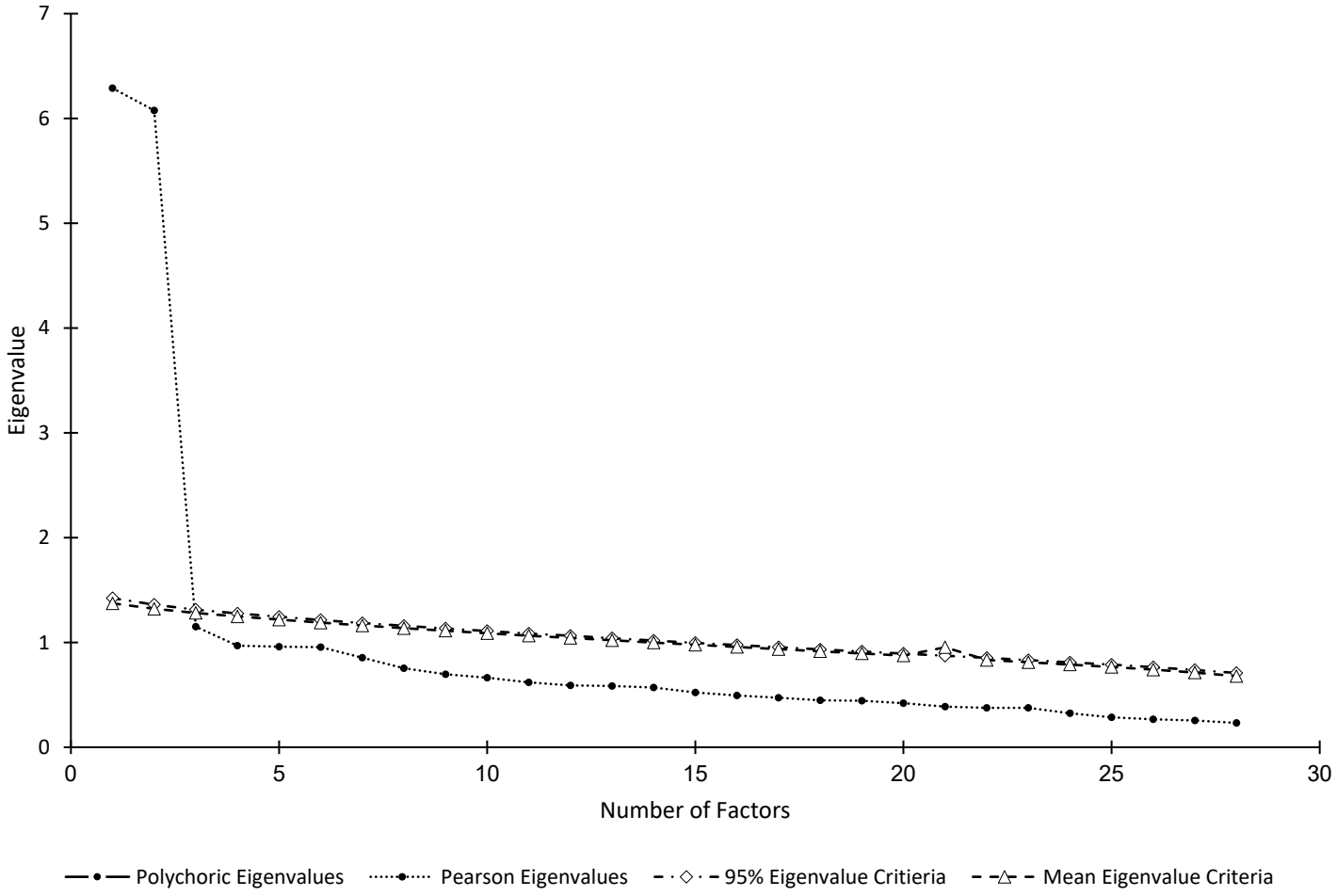

Figure C8

Hull Method Results

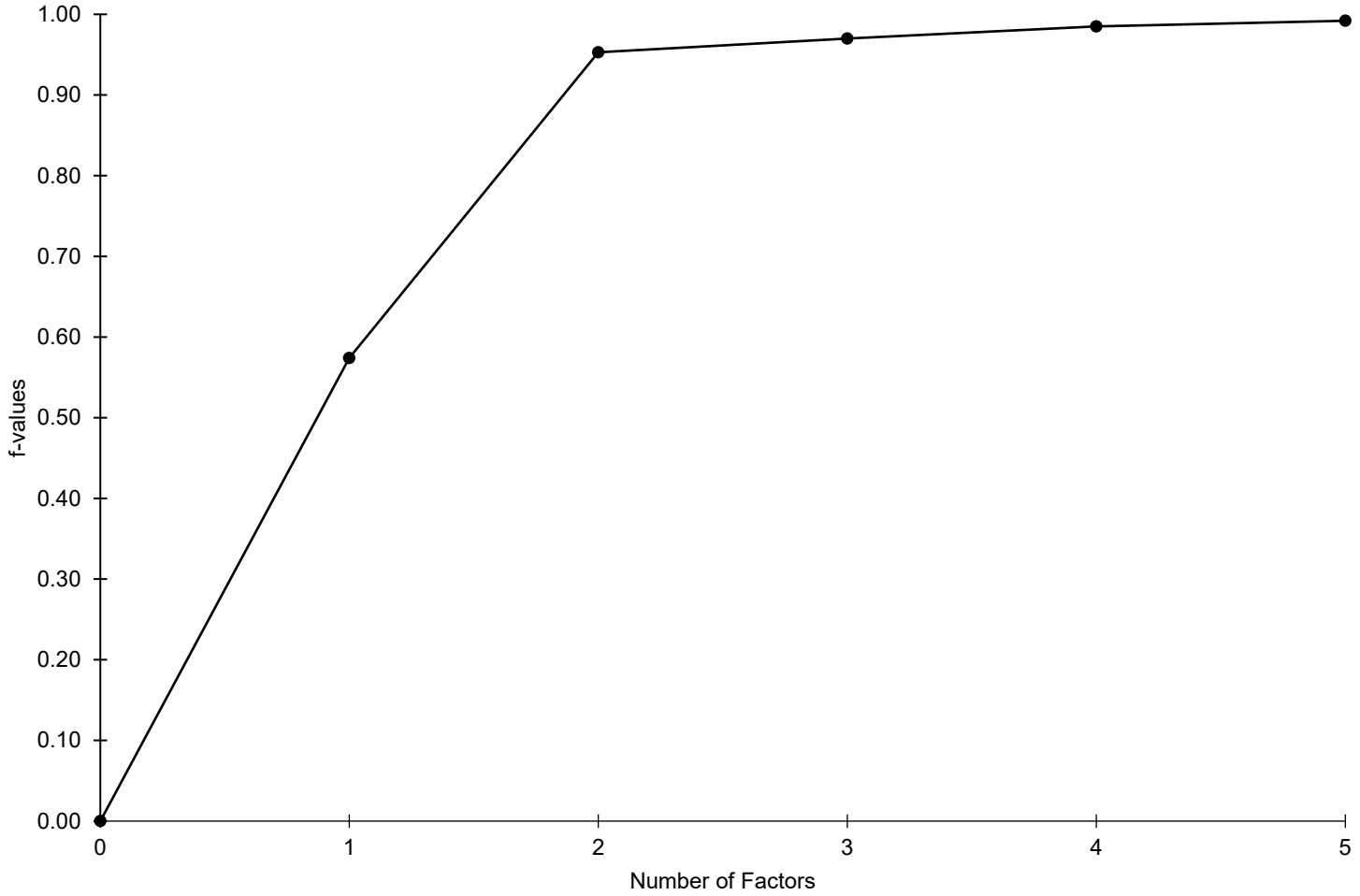

Figure C9

Very Simple Structure Criterion Results

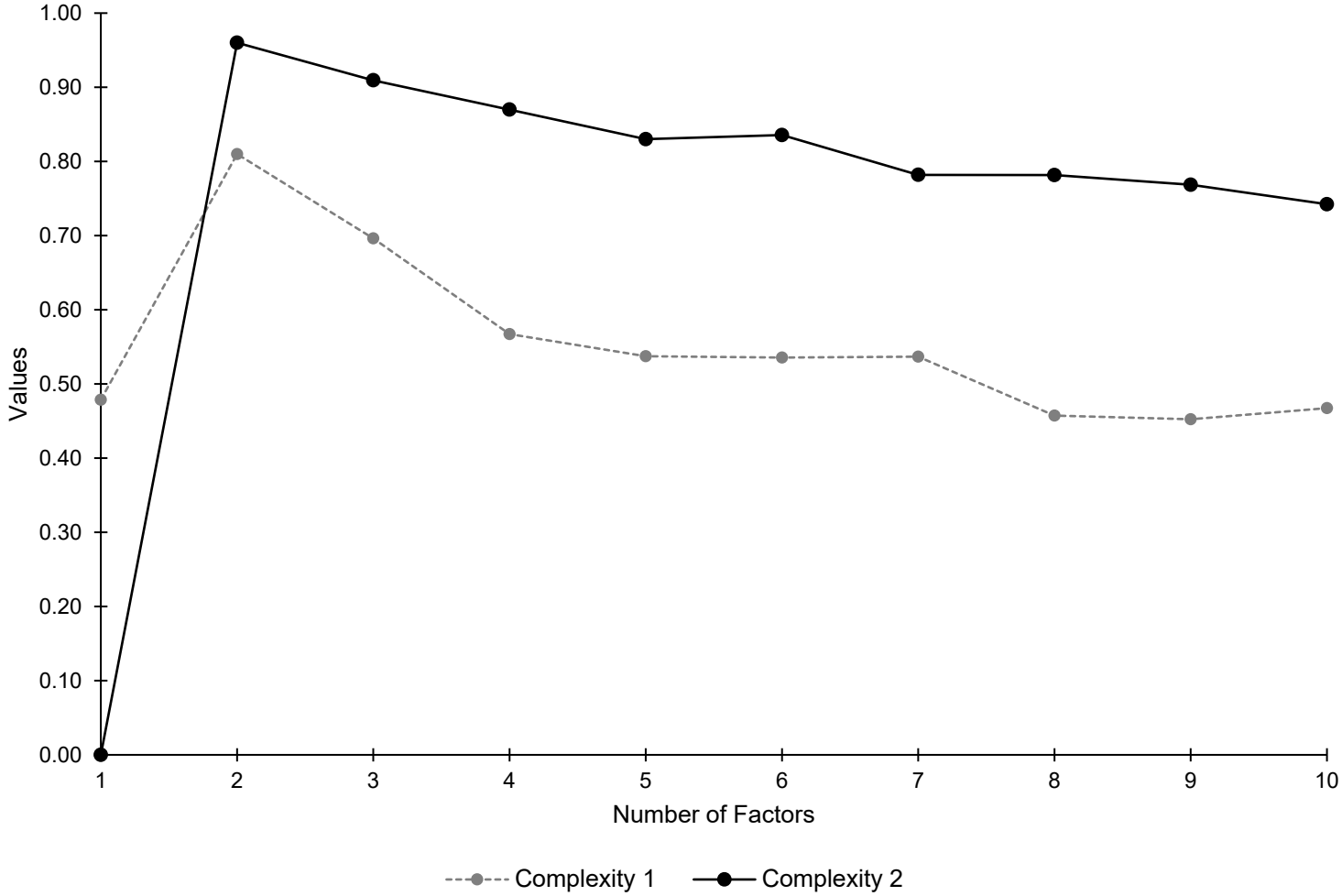

Table C11

Eigenvalues, Explained Variance, and Parallel Analysis

Factors	Eigenvalue	Proportion of Explained Variance	Cumulative Explained Variance	Mean of Random Eigenvalues	95th Percentile of Random Eigenvalues
1	6.777	24.20%	24.20%	1.278	1.314
2	6.557	23.42%	47.62%	1.242†	1.269†
3	1.553	5.55%	53.17%	1.213	1.237
4	1.487	5.31%	58.48%	1.187	1.208
5	1.058†	3.78%	62.25%	1.165	1.184
6	.894	3.19%	65.45%	1.144	1.162
7	.794	2.84%	68.28%	1.124	1.142
8	.717	2.56%	7.84%	1.105	1.123
9	.692	2.47%	73.32%	1.087	1.103
10	.644	2.30%	75.62%	1.069	1.085
11	.611	2.18%	77.80%	1.052	1.067
12	.571	2.04%	79.84%	1.035	1.050
13	.528	1.89%	81.72%	1.019	1.033
14	.476	1.70%	83.42%	1.002	1.016
15	.462	1.65%	85.07%	.987	1.000
16	.439	1.57%	86.64%	.970	.985
17	.425	1.52%	88.16%	.954	.968
18	.410	1.46%	89.62%	.938	.952
19	.375	1.34%	9.96%	.922	.935
20	.366	1.31%	92.27%	.906	.921
21	.342	1.22%	93.49%	.889	.904
22	.325	1.16%	94.65%	.873	.889
23	.301	1.07%	95.73%	.856	.870
24	.280	1.00%	96.73%	.838	.854
25	.270	.96%	97.69%	.820	.836
26	.232	.83%	98.52%	.800	.819
27	.217	.77%	99.29%	.777	.799
28	.198	.71%	10.00%	.748	.774

Note. †Number of factors suggested to retain.

Figure C10

Comparison Data Results

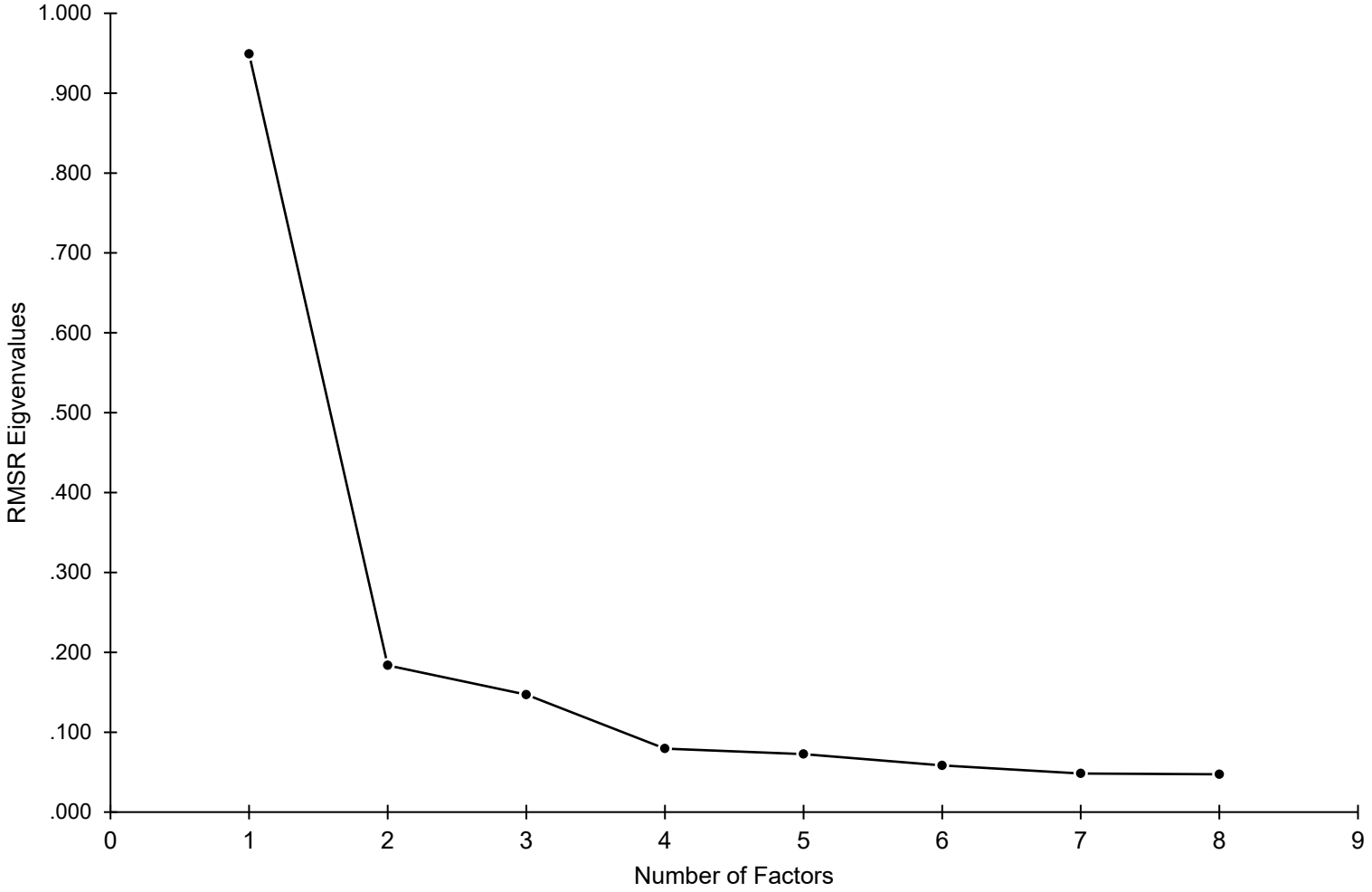

Table C12

Exploratory Factor Analysis, Unidimensional Model

Item	Item Label	λ_1
5	**I am jealous at how God seems to care more for others than for me.**	**.76**
7	**Sometimes I feel that God loves others more than me.**	**.76**
10	**I prefer not to depend too much on God.**	**.76**
27	**I get upset when I feel God helps others, but forgets about me.**	**.70**
2	**I just don't feel a deep need to be close to God.**	**.67**
4	**I am totally dependent upon God for everything in my life**	**−.66**
16	I am uncomfortable with emotional displays of affection to God.	**.60**
18	Without God I couldn't function at all.	**−.60**
12	I am uncomfortable being emotional in my communication with God.	**.59**
22	Daily I discuss all of my problems and concerns with God.	**−.59**
8	My experiences with God are very intimate and emotional.	**−.57**
24	I am uncomfortable allowing God to control every aspect of my life.	**.56**
23	I am jealous when others feel God's presence when I cannot.	**.55**
19	I often feel angry with God for not responding to me when I want.	**.55**
28	I let God make most of the decisions in my life.	**−.53**
17	I fear God does not accept me when I do wrong.	**.52**
3	If I can't see God working in my life, I get upset or angry.	**.49**
20	I believe people should not depend on God for things they should do for themselves.	**.49**
9	I am jealous at how close some people are to God.	**.49**
14	My prayers to God are often matter-of-fact and not very personal.	**.45**
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."	**.45**
26	My prayers to God are very emotional.	**−.42**
13	Even if I fail, I never question that God is pleased with me.	−.24
6	It is uncommon for me to cry when sharing with God.	.24
1	I worry a lot about my relationship with God.	.16
11	I often worry about whether God is pleased with me.	.16
25	I worry a lot about damaging my relationship with God.	.15
21	I crave reassurance from God that God loves me.	.02

Note. Bolded items possess factor loadings (λ) exceed ± .32 and communalities (h^2) ≥ .40; factor loadings (λ) ≥ ± .32 are bolded.

Table C13

Exploratory Factor Analysis, Two-Factor Model, All Rotation Methods

	Item Label	CF-Equamax/ CF-Facparsim		CF-Quartimax/ Quartimin		Geomin	
		λ_1	λ_2	λ_1	λ_2	λ_1	λ_2
4	**I am totally dependent upon God for everything in my life**	**.79**	.06	**.79**	.06	**.79**	.02
18	**Without God I couldn't function at all.**	**.78**	.13	**.78**	.13	**.79**	.08
8	**My experiences with God are very intimate and emotional.**	**.74**	.04	**.74**	.04	**.74**	.00
22	**Daily I discuss all of my problems and concerns with God.**	**.73**	.03	**.73**	.04	**.73**	−.01
28	**I let God make most of the decisions in my life.**	**.70**	.10	**.70**	.10	**.71**	.06
26	**My prayers to God are very emotional.**	**.64**	.12	**.64**	.12	**.64**	.08
2	**I just don't feel a deep need to be close to God.**	**−.76**	.13	**−.76**	.12	**−.74**	.17
10	**I prefer not to depend too much on God.**	**−.84**	.12	**−.84**	.12	**−.83**	.17
5	**I am jealous at how God seems to care more for others than for me.**	−.12	**.84**	−.11	**.84**	−.03	**.85**
27	**I get upset when I feel God helps others, but forgets about me.**	−.11	**.80**	−.11	**.80**	−.03	**.81**
23	**I am jealous when others feel God's presence when I cannot.**	.09	**.79**	.09	**.79**	.17	**.79**
7	**Sometimes I feel that God loves others more than me.**	−.21	**.79**	−.21	**.79**	−.13	**.80**
9	**I am jealous at how close some people are to God.**	.09	**.72**	.10	**.72**	.17	**.71**
19	**I often feel angry with God for not responding to me when I want.**	−.06	**.69**	−.06	**.69**	.01	**.70**
3	**If I can't see God working in my life, I get upset or angry.**	.01	**.68**	.01	**.68**	.08	**.68**
17	**I fear God does not accept me when I do wrong.**	−.11	**.65**	−.11	**.65**	−.05	**.66**
6	It is uncommon for me to cry when sharing with God.	**−.37**	−.06	**−.37**	−.06	**−.38**	−.04
14	My prayers to God are often matter-of-fact and not very personal.	**−.43**	.25	**−.43**	.25	**−.40**	.28
24	I am uncomfortable allowing God to control every aspect of my life.	**−.52**	.31	**−.52**	.31	**−.49**	.34
20	I believe people should not depend on God for things they should do for themselves.	**−.61**	.00	**−.61**	.00	**−.61**	.04
1	I worry a lot about my relationship with God.	.30	**.57**	.30	**.57**	**.35**	**.55**
13	Even if I fail, I never question that God is pleased with me.	.04	**−.32**	.04	**−.32**	.01	**−.32**
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."	−.10	**.58**	−.10	**.58**	−.04	**.58**
21	I crave reassurance from God that God loves me.	**.45**	**.54**	**.45**	**.54**	**.50**	**.51**
25	I worry a lot about damaging my relationship with God.	**.36**	**.61**	**.37**	**.61**	**.42**	**.59**
11	I often worry about whether God is pleased with me.	**.33**	**.60**	**.33**	**.60**	**.39**	**.58**
12	I am uncomfortable being emotional in my communication with God.	**−.52**	**.37**	**−.52**	**.37**	**−.48**	**.40**
16	I am uncomfortable with emotional displays of affection to God.	**−.56**	**.34**	**−.56**	**.34**	**−.52**	**.37**

Note. Bolded items possess factor loadings (λ) exceed ± .32 and communalities (h^2) ≥ .40; factor loadings (λ) ≥ ± .32 are bolded.

Table C14

Exploratory Factor Analysis, Three-Factor Model, CF-Quartimax and Quartimin Rotation Methods

	Item Label	CF-Equamax			CF-Facparsim		
		λ_1	λ_2	λ_3	λ_1	λ_2	λ_3
5	**I am jealous at how God seems to care more for others than for me.**	**.89**	−.04	.05	**.90**	−.08	.01
7	**Sometimes I feel that God loves others more than me.**	**.85**	.04	−.02	**.87**	.01	−.05
27	**I get upset when I feel God helps others, but forgets about me.**	**.79**	.04	.13	**.81**	.00	.10
19	**I often feel angry with God for not responding to me when I want.**	**.66**	.04	.16	**.67**	.01	.13
3	**If I can't see God working in my life, I get upset or angry.**	**.62**	.01	.21	**.63**	−.02	.18
12	**I am uncomfortable being emotional in my communication with God.**	.11	**.69**	.14	.10	**.69**	.20
16	**I am uncomfortable with emotional displays of affection to God.**	.14	**.66**	.07	.13	**.67**	.12
20	**I believe people should not depend on God for things they should do for themselves.**	.11	**.42**	**−.34**	.10	**.45**	−.30
8	**My experiences with God are very intimate and emotional.**	.08	**−.67**	.26	.10	**−.70**	.19
26	**My prayers to God are very emotional.**	.28	**−.70**	.13	.30	**−.73**	.05
25	**I worry a lot about damaging my relationship with God.**	.16	.11	**.71**	.18	.07	**.70**
11	**I often worry about whether God is pleased with me.**	.14	.14	**.70**	.15	.10	**.69**
1	**I worry a lot about my relationship with God.**	.12	.17	**.67**	.13	.13	**.67**
21	**I crave reassurance from God that God loves me.**	.25	−.12	**.58**	.27	−.17	**.54**
23	**I am jealous when others feel God's presence when I cannot.**	**.56**	.13	**.45**	**.57**	.08	**.43**
9	**I am jealous at how close some people are to God.**	**.45**	.15	**.46**	**.47**	.11	**.44**
17	**I fear God does not accept me when I do wrong.**	**.39**	**.33**	**.36**	**.40**	.30	**.36**
24	I am uncomfortable allowing God to control every aspect of my life.	**.35**	**.39**	−.17	**.35**	**.40**	−.15
15	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."	**.34**	.30	**.34**	**.34**	.28	**.34**
10	I prefer not to depend too much on God.	**.32**	**.52**	**−.49**	.31	**.55**	**−.44**
2	I just don't feel a deep need to be close to God.	**.30**	**.47**	**−.44**	.29	**.50**	**−.40**
22	Daily I discuss all of my problems and concerns with God.	−.07	**−.53**	**.40**	−.06	**−.56**	**.34**
28	I let God make most of the decisions in my life.	−.08	**−.43**	**.47**	−.07	**−.46**	**.43**
18	Without God I couldn't function at all.	−.17	**−.38**	**.62**	−.16	**−.42**	**.58**
4	I am totally dependent upon God for everything in my life	−.18	**−.44**	**.55**	−.16	**−.48**	**.50**
14	My prayers to God are often matter-of-fact and not very personal.	.02	**.58**	.13	.02	**.59**	.18
6	It is uncommon for me to cry when sharing with God.	−.21	**.46**	−.01	−.22	**.48**	.04

Note. Bolded items possess factor loadings (λ) exceed ± .32 and communalities (h^2) ≥ .40; factor loadings (λ) ≥ ± .32 are bolded.

Table C15

Exploratory Factor Analysis, Four-Factor Model, CF-Facparsim and CF-Equamax Rotation Methods

	Item Label	CF-Facparsim				CF-Equamax			
		λ_1	λ_2	λ_3	λ_4	λ_1	λ_2	λ_3	λ_4
11	**I often worry about whether God is pleased with me.**	**.83**	−.07	.00	−.10	**.84**	−.07	−.03	−.09
25	**I worry a lot about damaging my relationship with God.**	**.75**	.01	.11	−.06	**.75**	.02	.08	−.04
1	**I worry a lot about my relationship with God.**	**.69**	−.02	.12	.02	**.70**	−.02	.09	.04
17	**I fear God does not accept me when I do wrong.**	**.54**	.23	−.17	.16	**.53**	.25	−.20	.12
21	**I crave reassurance from God that God loves me.**	**.50**	.19	.26	−.12	**.48**	.20	.25	−.11
15	**Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."**	**.40**	.24	.00	.25	**.38**	.26	−.02	.23
5	**I am jealous at how God seems to care more for others than for me.**	.07	**.86**	.01	.08	−.01	**.90**	.02	.02
7	**Sometimes I feel that God loves others more than me.**	.09	**.79**	−.12	.09	.03	**.83**	−.12	.02
27	**I get upset when I feel God helps others, but forgets about me.**	.21	**.71**	−.05	.08	.15	**.75**	−.05	.03
19	**I often feel angry with God for not responding to me when I want.**	.19	**.61**	.01	.09	.14	**.64**	.00	.05
3	**If I can't see God working in my life, I get upset or angry.**	.25	**.56**	.02	.04	.21	**.58**	.01	.00
4	**I am totally dependent upon God for everything in my life**	.04	.02	**.75**	−.15	.03	.02	**.79**	−.08
28	**I let God make most of the decisions in my life.**	.01	.12	**.70**	−.14	−.01	.12	**.73**	−.07
18	**Without God I couldn't function at all.**	.24	−.07	**.64**	−.20	.24	−.07	**.66**	−.13
22	**Daily I discuss all of my problems and concerns with God.**	.04	.07	**.55**	**−.33**	.03	.07	**.58**	−.28
24	**I am uncomfortable allowing God to control every aspect of my life.**	.11	.22	**−.41**	.24	.10	.23	**−.43**	.18
2	**I just don't feel a deep need to be close to God.**	−.16	.22	**−.50**	**.35**	−.17	.24	**−.52**	.28
20	**I believe people should not depend on God for things they should do for themselves.**	.03	−.04	**−.55**	.19	.04	−.04	**−.58**	.14
10	**I prefer not to depend too much on God.**	−.05	.16	**−.67**	.30	−.06	.17	**−.70**	.22
12	**I am uncomfortable being emotional in my communication with God.**	.09	.11	.03	**.72**	.08	.14	.02	**.70**
16	**I am uncomfortable with emotional displays of affection to God.**	.05	.13	−.04	**.67**	.04	.16	−.05	**.64**
14	**My prayers to God are often matter-of-fact and not very personal.**	.10	.01	.02	**.59**	.10	.03	.01	**.58**
8	**My experiences with God are very intimate and emotional.**	.19	.08	.23	**−.64**	.18	.06	.24	**−.61**
26	**My prayers to God are very emotional.**	.14	.26	.08	**−.70**	.12	.25	.09	**−.70**
9	I am jealous at how close some people are to God.	**.42**	**.37**	.20	.22	**.39**	**.40**	.19	.21
23	I am jealous when others feel God's presence when I cannot.	**.40**	**.48**	.21	.22	**.36**	**.51**	.21	.21
6	It is uncommon for me to cry when sharing with God.	−.08	−.18	.04	**.50**	−.06	−.17	.03	**.51**
13	Even if I fail, I never question that God is pleased with me.	**−.42**	−.01	.23	.04	**−.42**	−.01	.26	.06

Note. Bolded items possess factor loadings (λ) exceed ± .32 and communalities (h^2) ≥ .40; factor loadings (λ) ≥ ± .32 are bolded.

Table C16

Exploratory Factor Analysis, Four-Factor Model, CF-Quartimax/Quartimin and Geomin Rotation Methods

	Item Label	CF-Quartimax/Quartimin				Geomin			
		λ_1	λ_2	λ_3	λ_4	λ_1	λ_2	λ_3	λ_4
11	**I often worry about whether God is pleased with me.**	**.85**	−.06	−.05	−.08	**.84**	−.05	−.05	−.10
25	**I worry a lot about damaging my relationship with God.**	**.74**	.03	.08	−.03	**.73**	.05	.08	−.05
1	**I worry a lot about my relationship with God.**	**.69**	.00	.09	.06	**.69**	.01	.09	.04
17	**I fear God does not accept me when I do wrong.**	**.52**	.27	−.23	.09	**.50**	.30	−.24	.05
21	**I crave reassurance from God that God loves me.**	**.44**	.22	.28	−.08	**.44**	.23	.27	−.09
15	**Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold."**	**.35**	.28	−.03	.22	**.35**	.31	−.04	.19
5	**I am jealous at how God seems to care more for others than for me.**	−.09	**.95**	.03	−.02	−.10	**.96**	.01	−.05
7	**Sometimes I feel that God loves others more than me.**	−.04	**.87**	−.12	−.03	−.06	**.88**	−.14	−.06
27	**I get upset when I feel God helps others, but forgets about me.**	.09	**.79**	−.06	−.01	.07	**.80**	−.07	−.04
19	**I often feel angry with God for not responding to me when I want.**	.08	**.68**	.01	.03	.07	**.69**	.00	.00
3	**If I can't see God working in my life, I get upset or angry.**	.15	**.62**	.01	−.02	.14	**.63**	.00	−.04
4	**I am totally dependent upon God for everything in my life**	−.02	.03	**.86**	.03	−.01	.03	**.87**	.05
28	**I let God make most of the decisions in my life.**	−.07	.13	**.80**	.02	−.06	.13	**.80**	.04
18	**Without God I couldn't function at all.**	.20	−.07	**.72**	−.03	.21	−.07	**.73**	−.01
22	**Daily I discuss all of my problems and concerns with God.**	−.01	.08	**.64**	−.19	−.01	.06	**.64**	−.18
24	**I am uncomfortable allowing God to control every aspect of my life.**	.11	.24	**−.48**	.11	.10	.26	**−.49**	.09
2	**I just don't feel a deep need to be close to God.**	−.16	.25	**−.57**	.19	−.16	.27	**−.58**	.17
20	**I believe people should not depend on God for things they should do for themselves.**	.08	−.05	**−.63**	.06	.07	−.04	**−.64**	.04
10	**I prefer not to depend too much on God.**	−.03	.17	**−.76**	.12	−.04	.19	**−.77**	.09
12	**I am uncomfortable being emotional in my communication with God.**	.05	.15	−.01	**.68**	.06	.21	−.01	**.66**
16	**I am uncomfortable with emotional displays of affection to God.**	.02	.17	−.08	**.62**	.03	.23	−.09	**.59**
14	**My prayers to God are often matter-of-fact and not very personal.**	.08	.03	−.01	**.57**	.10	.08	−.02	**.55**
8	**My experiences with God are very intimate and emotional.**	.16	.07	.29	**−.56**	.15	.02	.29	**−.55**
26	**My prayers to God are very emotional.**	.10	.26	.12	**−.68**	.08	.21	.12	**−.67**
9	I am jealous at how close some people are to God.	**.33**	**.43**	.20	.22	**.33**	**.46**	.19	.20
23	I am jealous when others feel God's presence when I cannot.	.30	**.55**	.22	.21	.29	**.58**	.21	.19
6	It is uncommon for me to cry when sharing with God.	−.06	−.18	.01	**.51**	−.04	−.14	.01	**.50**
13	Even if I fail, I never question that God is pleased with me.	**−.44**	−.02	.29	.09	**−.43**	−.02	.29	.11

Note. Bolded items possess factor loadings (λ) exceed ± .32 and communalities (h^2) ≥ .40; factor loadings (λ) ≥ ± .32 are bolded.

Table C17

Confirmatory Factor Analyses of EFA Models

Model Specification	CFA Sample					Full Sample				
	χ^2	*df*	RMSEA	CFI	TLI	χ^2	*df*	RMSEA	CFI	TLI
1-factor	2470.180	9	.427 [.413–.441]	.791	.652					
2-factor	1275.184	104	.087 [.082–.091]	.959	.953					
Adjusted model[1]	109.956	20	.055 [.045–.065]	.995	.992	172.186	20	.051 [.044–.058]	.995	.993
3-factor										
CF-Facparsim	2101.619	62	.148 [.143–.154]	.895	.868					
CF-Equamax	827.697	51	.101 [.095–.017]	.957	.945					
Adjusted model[2]	230.768	24	.076 [.067–.085]	.985	.977	449.951	24	.077 [.071–.083]	.983	.975
4-factor										
CF-Facparsim	5733.184	146	.160 [.156–.163]	.818	.787					
CF-Equamax	4403.991	146	.139 [.136–.143]	.866	.843					
CF-Quartimax, Quartimin, Geomin	4413.288	146	.140 [.136–.143]	.864	.841					

Note. 1 = Items 2R, 3, 8, 9, 10R, 17, 23, and 36 were removed; 2 = Items 3, 19, and 21 were removed.

Figure C11

Confirmatory Factor Analysis Diagram of the Revised AGI Model

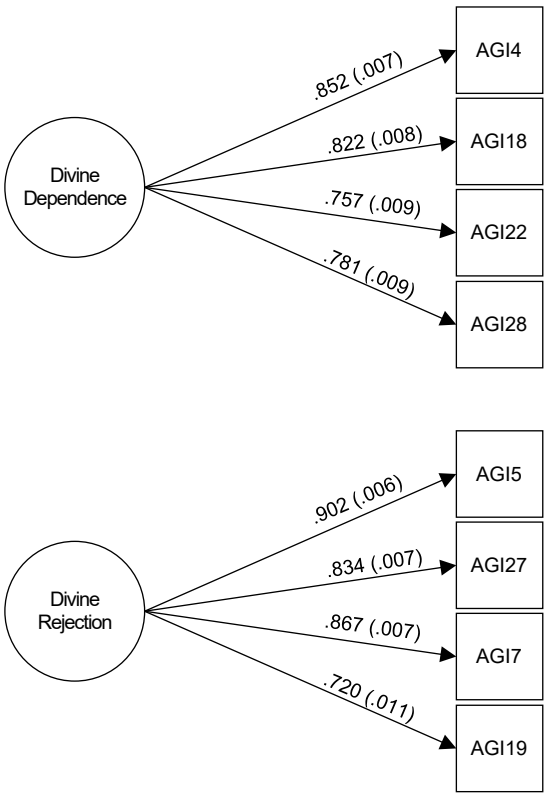

Table C18

Confirmatory Factor Analysis, Attachment to God Inventory

	F1. Divine Dependence	λ	SE	r^2	ε
4	I am totally dependent upon God for everything in my life.	.852	.007	.725	.275
18	Without God I couldn't function at all.	.822	.008	.675	.325
22	Daily I discuss all of my problems and concerns with God.	.757	.009	.573	.427
28	I let God make most of the decisions in my life.	.781	.009	.609	.391
	F2. Divine Rejection	λ	SE	r^2	ε
5	I am jealous at how God seems to care more for others than for me.	.902	.006	.814	.186
7	Sometimes I feel that God loves others more than me.	.867	.007	.752	.248
19	I often feel angry with God for not responding to me when I want.	.720	.011	.519	.481
27	I get upset when I feel God helps others, but forgets about me.	.834	.007	.696	.304

	F1	F2
Inter-factor correlations (*r*)	—	.000
		—
Internal Consistency (ρ)	.853 [.843–.862]	.859 [.849–.868]
Mean	3.049	2.11
Standard deviation	0.988	0.843
Range	1–5	1–5

Table C19

Measurement Invariance Model Results

Invariant Model	χ^2	*df*	RMSEA	CFI	TLI	MNCI	$\hat{\gamma}$	ΔRMSEA	ΔCFI	ΔMNCI	$\Delta\hat{\gamma}$	Invariance accepted
Gender (Female and Male)												
Configural	200.167	40	.052 [.045–.059]	.995	.993	.973	.974					Yes
Metric	217.126	46	.050 [.043–.057]	.994	.993	.972	.972	−.002	−.001	−.001	−.002	Yes
Scalar	283.982	68	.046 [.041–.052]	.993	.994	.964	.965	−.004	−.001	−.008	−.007	Yes
Ethnicity (White/Caucasian and Ethnic Minority)												
Configural	189.155	40	.050 [.043–.057]	.995	.993	.975	.976					Yes
Metric	205.937	40	.048 [.042–.055]	.995	.993	.974	.974	−.002	.000	−.001	−.002	Yes
Scalar	304.028	68	.048 [.043–.054]	.992	.994	.961	.962	.000	−.003	−.013	−.012	Yes
Religious Affiliation (Christian and Non-Christian)												
Configural	500.203	40	.088 [.081–.095]	.984	.977	.926	.928					No
Metric	539.290	46	.085 [.078–.091]	.983	.979	.921	.923	−.003	−.001	−.005	−.005	No
Scalar	695.238	68	.079 [.073–.084]	.978	.982	.900	.904	−.006	−.005	−.021	−.019	No

Table C20

Inter-Factor Correlations of Study Measures and Constructs

	Construct	Internal Consistency	1	2	3	4	5	6
1	AGI: Rejection	.845	—	−.077***	−.235***	−.287***	−.256***	−.082***
2	AGI: Dependence	.841	−.065***	—	.827***	.762***	.849***	.708***
3	BMMRS: Experiential Comforting Faith	.873	−.202***	.709***	—	1.00†	.695***	.917***
4	BMMRS: Forgiveness	.800	−.236***	.625***	.903***	—	1.00†	.847***
5	BMMRS: Personal Spirituality	.732	−.201***	.666***	.947***	.854***	—	.959***
6	BMMRS: Private Religious Practice	.870	−.070***	.606***	.799***	.707***	.765***	—
7	BMMRS: Personal Spiritual/Religious Beliefs & Practices	.828	−.202***	.708***	.998***	.916***	.958***	.817***
8	SS: Self-discovery	.829	−.366***	.315***	.422***	.434***	.434***	.265***
9	SS: Eco-awareness	.779	−.208***	.071***	.186***	.183***	.219***	.056**
10	SS: Spiritual Beliefs and Practices	.884	−.247***	.518***	.664***	.612***	.660***	.540***
11	INSPIRIT : Spiritual-Religious Connection	.810	−.227***	.592***	.762***	.678***	.761***	.739***
12	INSPIRIT: Positive Emotional Experiences	.890	−.146***	.438***	.558***	.498***	.581***	.487***
13	TCI-ST: Transpersonal Identification	.711	−.092***	.161***	.207***	.183***	.294***	.108***
14	TCI-ST: Spiritual Acceptance	.792	−.172***	.498***	.630***	.564***	.649***	.571***
15	TCI-ST: Self-forgetful vs. Self-conscious	.763	.162***	−.030	−.128***	−.128***	−.072***	−.157***
16	Quest: Questioning	.693	.198***	−.167***	−.186***	−.189***	−.139***	−.119***
17	ISS: Intrinsic Spirituality	.971	−.162***	.683***	.806***	.721***	.797	.744***
18	RSES: Rosenberg Self-Esteem	.672	−.428***	.114***	.245***	.318***	.252***	.110***
19	FS: Friendship Scale	.617	−.320***	.082***	.147***	.192***	.135***	.051**
20	ECR-S: Comfort with Closeness	.816	.251***	−.021	−.066***	−.114***	−.051***	−.001
21	ECR-S: Dependence/Disclosure	.865	−.146***	.067***	.119***	.139***	.112***	.021
22	ECR-S: Concern with Closeness	.865	.297***	−.037	−.067***	−.107***	−.056***	−.021
23	GAD: Generalized Anxiety Disorder	.900	.257***	−.058	−.134***	−.190***	−.124***	−.142***
24	PHQ: Patient Health Questionnaire	.869	.319***	−.090***	−.172***	−.231***	−.167***	−.130***

Table C20 (continued)

	Construct	Internal Consistency	7	8	9	10	11	12
1	AGI: Rejection	.845	−.241***	−.437***	−.256***	−.286***	−.274***	−.168***
2	AGI: Dependence	.841	.848***	.377***	.088***	.601***	.717***	.506***
3	BMMRS: Experiential Comforting Faith	.873	1.00†	.496***	.226***	.756***	.906***	.633***
4	BMMRS: Forgiveness	.800	1.00†	.533***	.232***	.728***	.842***	.590***
5	BMMRS: Personal Spirituality	.732	1.00†	.557***	.290***	.820***	.988***	.720***
6	BMMRS: Private Religious Practice	.870	.963***	.312***	.068***	.616***	.880***	.553***
7	BMMRS: Personal Spiritual/Religious Beliefs & Practices	.828	—	.514***	.233***	.781***	.902***	.658***
8	SS: Self-discovery	.829	.426***	—	.550***	.675***	.488***	.384***
9	SS: Eco-awareness	.779	.187***	.442***	—	.560***	.237***	.241***
10	SS: Spiritual Beliefs and Practices	.884	.668***	.578***	.465***	—	.778***	.543***
11	INSPIRIT : Spiritual-Religious Connection	.810	.771***	.400***	.188***	.658***	—	.767***
12	INSPIRIT: Positive Emotional Experiences	.890	.565***	.330***	.201***	.482***	.651***	—
13	TCI-ST: Transpersonal Identification	.711	.215***	.271***	.332***	.254***	.205***	.322***
14	TCI-ST: Spiritual Acceptance	.792	.638***	.419***	.294***	.651***	.666***	.557
15	TCI-ST: Self-forgetful vs. Self-conscious	.763	−.125***	−.084***	.020	−.130***	−.165***	−.003
16	Quest: Questioning	.693	−.181***	−.034	.071***	−.078***	−.180***	−.070***
17	ISS: Intrinsic Spirituality	.971	.814***	.386***	.182***	.687***	.783***	.560***
18	RSES: Rosenberg Self-Esteem	.672	.251***	.543***	.176***	.275***	.238***	.174***
19	FS: Friendship Scale	.617	.148***	.375***	.123***	.189***	.145***	.119***
20	ECR-S: Comfort with Closeness	.816	−.067***	−.182***	−.054**	−.087***	−.055	−.051**
21	ECR-S: Dependence/Disclosure	.865	.117***	.257***	.193***	.211***	.107***	.109***
22	ECR-S: Concern with Closeness	.865	−.069***	−.182***	−.044*	−.095***	−.081***	−.056**
23	GAD: Generalized Anxiety Disorder	.900	−.141***	−.250	−.013	−.130***	−.162***	−.057**
24	PHQ: Patient Health Questionnaire	.869	−.179***	−.361	−.070***	−.172***	−.201***	−.094***

Table C20 (continued)

	Construct	Internal Consistency	13	14	15	16	17	18
1	AGI: Rejection	.845	−.119***	−.210***	.202***	.259***	−.179***	−.568***
2	AGI: Dependence	.841	.208***	.610***	−.037*	−.219***	.756***	.152***
3	BMMRS: Experiential Comforting Faith	.873	.263***	.758***	−.157***	−.239***	.875***	.320***
4	BMMRS: Forgiveness	.800	.243***	.709***	−.164***	−.254***	.818***	.434***
5	BMMRS: Personal Spirituality	.732	.408***	.852***	−.096***	−.195***	.945***	.359***
6	BMMRS: Private Religious Practice	.870	.137***	.688***	−.193***	−.153***	.809***	.144***
7	BMMRS: Personal Spiritual/Religious Beliefs & Practices	.828	.280***	.788***	−.157***	−.239***	.908***	.336***
8	SS: Self-discovery	.829	.353***	.517***	−.106***	−.045*	.430***	.728***
9	SS: Eco-awareness	.779	.446***	.374***	.026	.097***	.209***	.243***
10	SS: Spiritual Beliefs and Practices	.884	.320***	.778***	−.158***	−.100***	.742***	.357***
11	INSPIRIT : Spiritual-Religious Connection	.810	.270***	.832***	−.210***	−.240***	.883***	.323***
12	INSPIRIT: Positive Emotional Experiences	.890	.405***	.663***	−.004	−.089***	.602***	.225***
13	TCI-ST: Transpersonal Identification	.711	—	.614***	.599***	.168***	.262***	.203***
14	TCI-ST: Spiritual Acceptance	.792	.461***	—	−.078***	−.049***	.765***	.248***
15	TCI-ST: Self-forgetful vs. Self-conscious	.763	.441***	−.061**	—	.199***	−.134***	−.189***
16	Quest: Questioning	.693	.118***	−.036	.145***	—	−.158***	−.205***
17	ISS: Intrinsic Spirituality	.971	.218***	.671***	−.115***	−.130***	—	.224***
18	RSES: Rosenberg Self-Esteem	.672	.140***	.181***	−.135***	−.140***	.181***	—
19	FS: Friendship Scale	.617	.094***	.117***	−.170***	−.139***	.114***	.502***
20	ECR-S: Comfort with Closeness	.816	.058**	−.031	.168***	.131***	−.037*	−.296***
21	ECR-S: Dependence/Disclosure	.865	.047*	.176***	−.111***	−.034	.116***	.173***
22	ECR-S: Concern with Closeness	.865	.038*	−.026	.162***	.112***	−.061**	−.327***
23	GAD: Generalized Anxiety Disorder	.900	−.013	−.069***	.192***	.115***	−.111***	−.480***
24	PHQ: Patient Health Questionnaire	.869	−.038*	−.122***	.192***	.141***	−.144***	−.597***

Table C20 (continued)

	Measure: Construct	Internal Consistency	19	20	21	22	23	24
1	AGI: Rejection	.845	−.443***	.302***	−.171***	.347***	.295***	.372***
2	AGI: Dependence	.841	.114***	−.025	.078***	−.043*	−.067***	−.105***
3	BMMRS: Experiential Comforting Faith	.873	.200***	−.078***	.139***	−.078***	−.154***	−.201***
4	BMMRS: Forgiveness	.800	.273***	−.141***	.167***	−.129***	−.224***	−.277***
5	BMMRS: Personal Spirituality	.732	.201***	−.066***	.141***	−.070***	−.153***	−.209***
6	BMMRS: Private Religious Practice	.870	.070***	−.001	.024	−.024	−.160***	−.150***
7	BMMRS: Personal Spiritual/Religious Beliefs & Practices	.828	.207***	−.082***	.138***	−.082***	−.163***	−.211***
8	SS: Self-discovery	.829	.524***	−.221***	.303***	−.215***	−.289***	−.425***
9	SS: Eco-awareness	.779	.177***	−.068***	.235***	−.054**	−.016	−.085***
10	SS: Spiritual Beliefs and Practices	.884	.256***	−.102***	.241***	−.109***	−.146***	−.196***
11	INSPIRIT : Spiritual-Religious Connection	.810	.205***	−.068***	.128***	−.097***	−.190***	−.240***
12	INSPIRIT: Positive Emotional Experiences	.890	.161***	−.060**	.124***	−.064***	−.064***	−.107***
13	TCI-ST: Transpersonal Identification	.711	.142***	.076***	.060**	.048	−.016***	−.048***
14	TCI-ST: Spiritual Acceptance	.792	.167***	−.039*	.213***	−.031***	−.082***	−.147***
15	TCI-ST: Self-forgetful vs. Self-conscious	.763	−.248***	.213***	−.137***	.199***	.232***	.236***
16	Quest: Questioning	.693	−.213***	.174***	−.044*	.145***	.146***	.182***
17	ISS: Intrinsic Spirituality	.971	.147***	−.042*	.127***	−.067***	−.119***	−.157***
18	RSES: Rosenberg Self-Esteem	.672	.780***	−.400***	.227***	−.429***	−.617***	−.781***
19	FS: Friendship Scale	.617	—	−.393***	−.448***	−.427***	−.501***	−.656***
20	ECR-S: Comfort with Closeness	.816	−.279***	—	−.374***	.530***	.284***	.346***
21	ECR-S: Dependence/Disclosure	.865	.189***	−.314***	—	−.082***	−.052**	−.133***
22	ECR-S: Concern with Closeness	.865	−.312***	.445***	−.071***	—	.322***	.362***
23	GAD: Generalized Anxiety Disorder	.900	−.373***	.243***	−.046*	.284***	—	.808***
24	PHQ: Patient Health Questionnaire	.869	−.480***	.291***	−.115***	.314***	.715***	—

Note. †Disattenuated correlations exceed 1.0. Bottom triangle is polychoric correlations (r_{xy}); top triangle is Pearson product-moment correlations (r_{pc}).

$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table C21

Latent Profile Analysis Model Fit Statistics

k	LL	CAIC	AIC	BIC	SABIC	Entropy	VLMR	*p-value*	LMA-R	*p-value*	BLRT	*p-value*
1	−6980.896	13969.216	13969.793	13993.331	13980.622							
2	−6951.647	13913.718	13917.294	13958.486	13936.245	.515	58.498	< .001	56.126	< .001	58.498	< .001
3	−6841.862	13697.148	13703.725	13762.570	13730.797	.649	219.570	< .001	210.663	< .001	219.570	< .001
4	−6769.048	13554.520	13564.095	13640.595	13599.290	.739	145.629	< .001	139.722	< .001	145.629	< .001
5	−6716.490	13452.404	13464.979	13559.133	13508.296	.789	105.116	< .001	100.852	< .001	105.116	< .001
6	−6679.063	13380.550	13396.127	13507.934	13447.565	.827	74.853	.089	71.817	.096	74.853	< .001

Note. AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; SABIC = Sample-size adjusted BIC; VLMR = Vuong-Lo-Mendell-Rubin likelihood difference test; LMA-A = Lo-Mendell-Rubin adjusted likelihood ration test; BLRT = Bootstrap likelihood ratio test.

Table C22

Five-Class Solution Factor Means

Construct	Intrinsic Believer (20.78%) M (SD)	Disconnected (6.40%) M (SD)	Everyday Believer (45.97%) M (SD)	Social Believer (21.61%) M (SD)	Abandoned (5.23%) M (SD)
Rejection	.923*** (.339)	−1.034*** (.339)	.038 (.339)	1.864 (.339)	−1.024*** (.339)
Dependence	−.134*** (.775)	−.1403*** (.775)	−.034 (.775)	−.052*** (.775)	.644*** (.775)

***p <.001

Figure C12

Factor Score Mean Plots of the Five-Class Solution

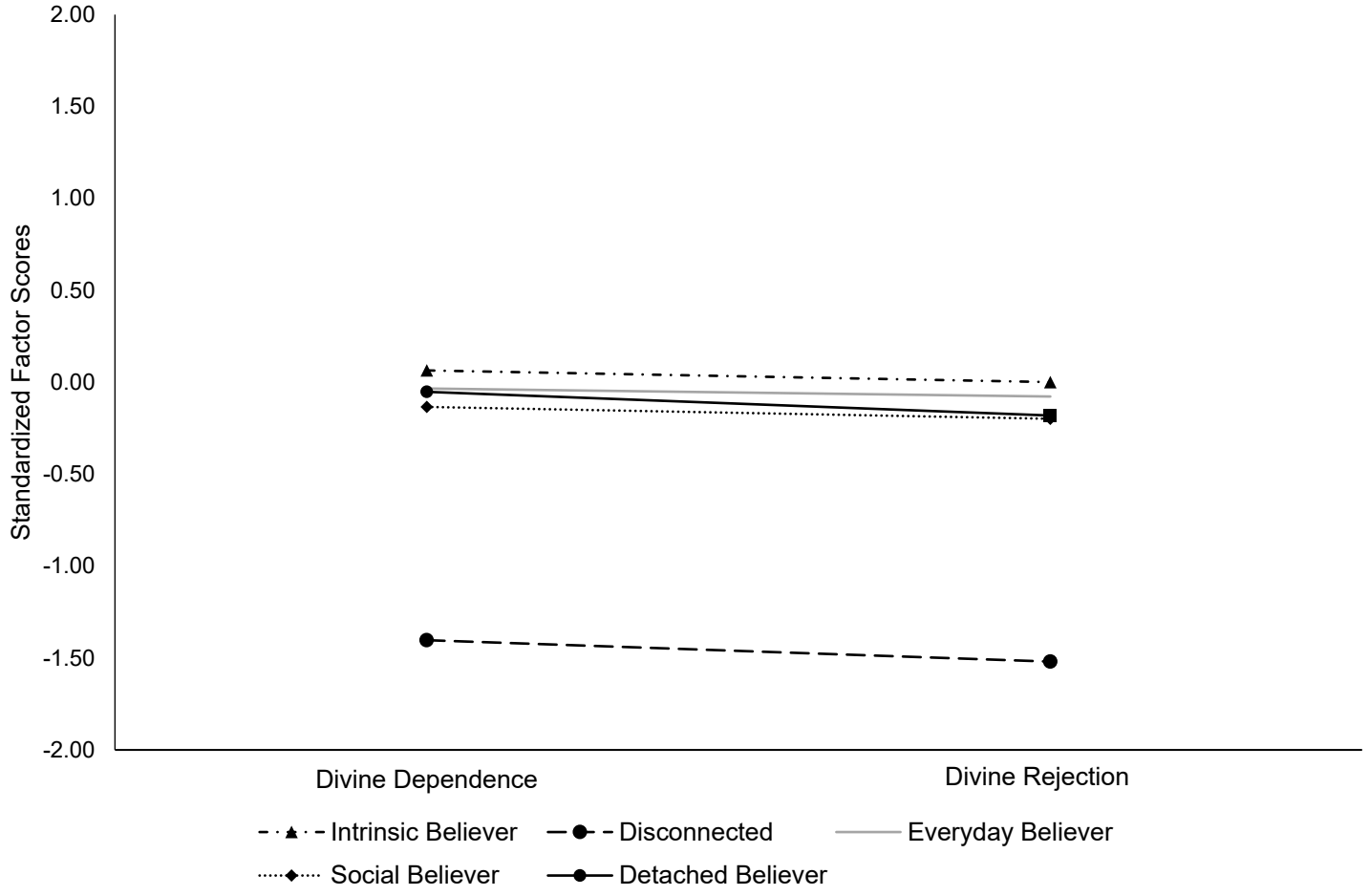

Figure C13

Group Plot of Five-Class Solution

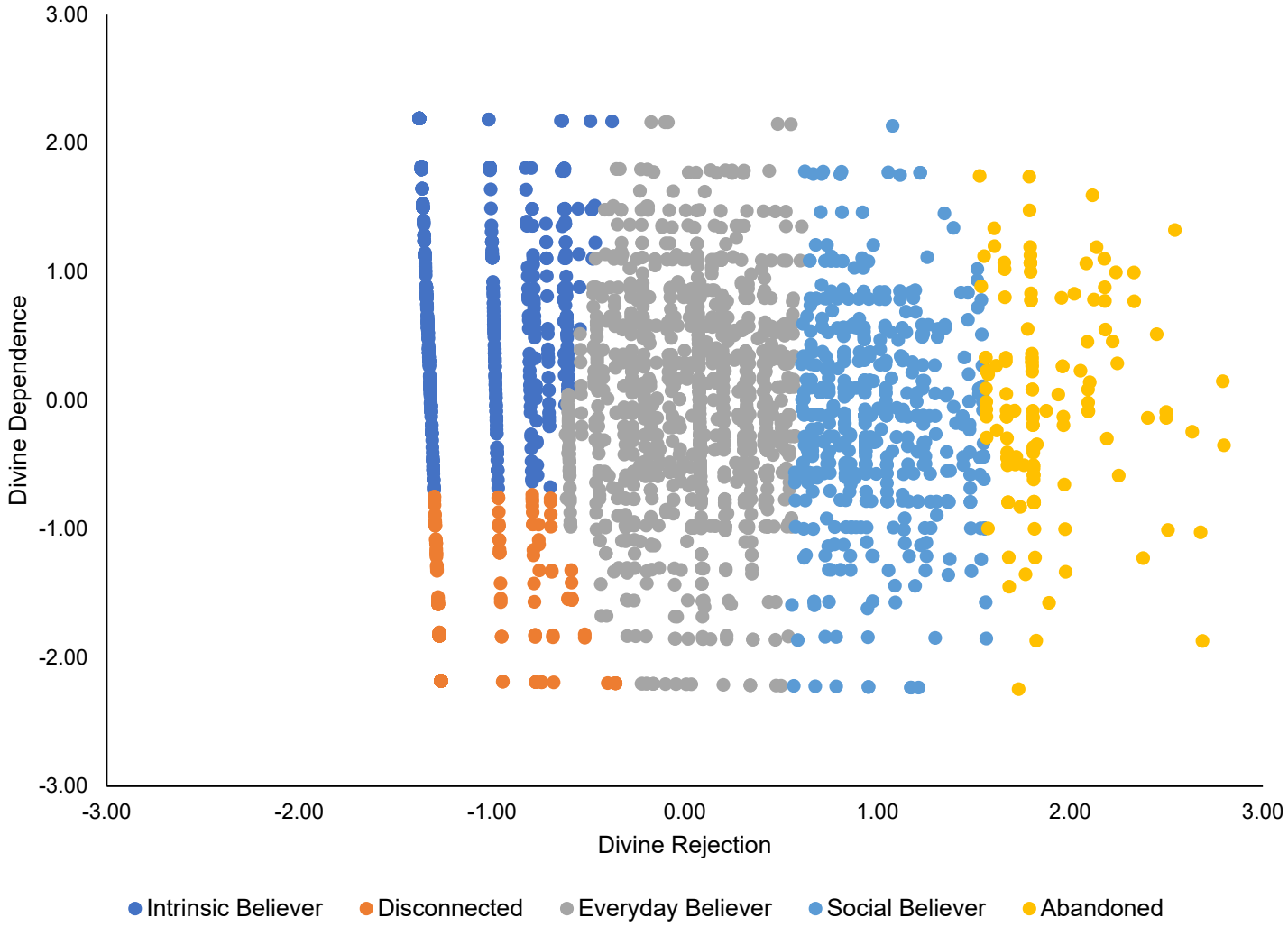

Table C23

Multinomial Logistic Regression, Predictors of the Intrinsic Believers Class

	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI Lower	95% CI Upper
	Intercept	−1.597	.179	79.254	1	< .001			
Males ×	Male	.113	.205	.307	1	.579	1.120	.750	1.673
	BMMRS: Experiential Comforting Faith	1.137	.215	27.892	1	< .001***	3.116	2.044	4.751
	BMMRS: Private Religious Practice	−.810	.192	17.778	1	< .001***	.445	.305	.648
	SS: Self-Awareness	.094	.126	.552	1	.457	1.098	.858	1.406
	SS: Spiritual Beliefs and Practices	.301	.152	3.899	1	.048*	1.351	1.002	1.821
	ECR-S: Comfort with Closeness	−.074	.079	.869	1	.351	.929	.796	1.085
	ECR-S: Concern with Closeness	−.209	.081	6.656	1	.010*	.811	.692	.951
	Friendship Scale	.072	.207	.120	1	.729	1.074	.715	1.614
	GAD-7	.030	.092	.105	1	.746	1.030	.861	1.233
	INSPIRIT: Spiritual-Religious Connection	.378	.175	4.672	1	.031*	1.460	1.036	2.057
	Intrinsic Spirituality Scale	.367	.172	4.554	1	.033*	1.444	1.030	2.024
	Quest: Questioning	−.312	.079	15.472	1	< .001***	.732	.627	.855
	Rosenberg Self-Esteem	.375	.106	12.457	1	< .001***	1.455	1.181	1.791
	TCI-ST: Self-forgetful vs. Self-conscious	−.114	.093	1.511	1	.219	.892	.744	1.070
	TCI-ST: Transpersonal Identification	−.142	.097	2.163	1	.141	.868	.718	1.048
Females ×	Female	—							
	BMMRS: Experiential Comforting Faith	.827	.343	5.802	1	.016*	2.287	1.167	4.482
	BMMRS: Private Religious Practice	−1.117	.322	12.036	1	.001**	.327	.174	.615
	SS: Self-Awareness	.262	.234	1.251	1	.263	1.300	.821	2.057
	SS: Spiritual Beliefs and Practices	.496	.278	3.181	1	.075	1.642	.952	2.831
	ECR-S: Comfort with Closeness	−.137	.138	.989	1	.320	.872	.665	1.143
	ECR-S: Concern with Closeness	−.302	.143	4.443	1	.035*	.740	.559	.979
	Friendship Scale	−.440	.346	1.613	1	.204	.644	.327	1.270
	GAD-7	−.001	.169	.000	1	.995	.999	.718	1.390
	INSPIRIT: Spiritual-Religious Connection	.073	.309	.056	1	.814	1.076	.587	1.970
	Intrinsic Spirituality Scale	.868	.318	7.439	1	.006**	2.382	1.277	4.444
	Quest: Questioning	−.249	.132	3.547	1	.060	.780	.602	1.010

Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI Lower	95% CI Upper
Rosenberg Self-Esteem	.228	.176	1.669	1	.196	1.256	.889	1.775
TCI-ST: Self-forgetful vs. Self-conscious	−.256	.158	2.615	1	.106	.774	.568	1.056
TCI-ST: Transpersonal Identification	−.147	.169	.755	1	.385	.864	.620	1.202

Note. Results are compared to the *everyday believer* class.

$^{***}p < .001$. $^{**}p < .01$. $^{*}p < .05$.

Table C24

Multinomial Logistic Regression, Predictors of the Independent Believer Class

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	Intercept	−2.926	.295	98.514	1	< .001			
Males ×	Male	-.315	.363	.756	1	.385	.730	.359	1.485
	BMMRS: Experiential Comforting Faith	−1.347	.380	12.541	1	< .001***	.260	.123	.548
	BMMRS: Private Religious Practice	−1.150	.339	11.526	1	.001**	.317	.163	.615
	SS: Self-Awareness	−.231	.211	1.199	1	.274	.794	.525	1.200
	SS: Spiritual Beliefs and Practices	.135	.274	.243	1	.622	1.145	.669	1.958
	ECR-S: Comfort with Closeness	−.087	.129	.456	1	.500	.917	.712	1.180
	ECR-S: Concern with Closeness	−.229	.141	2.628	1	.105	.796	.603	1.049
	Friendship Scale	−.423	.343	1.524	1	.217	.655	.335	1.282
	GAD-7	.073	.158	.212	1	.645	1.075	.789	1.466
	INSPIRIT: Spiritual-Religious Connection	.636	.306	4.311	1	.038*	1.890	1.036	3.446
	Intrinsic Spirituality Scale	−.591	.224	6.954	1	.008**	.554	.357	.859
	Quest: Questioning	.238	.159	2.233	1	.135	1.269	.929	1.734
	Rosenberg Self-Esteem	.601	.185	10.574	1	.001**	1.825	1.270	2.622
	TCI-ST: Self-forgetful vs. Self-conscious	−.404	.159	6.415	1	.011*	.668	.488	.913
	TCI-ST: Transpersonal Identification	.151	.177	.725	1	.394	1.163	.822	1.646
Females ×	Female	—							
	BMMRS: Experiential Comforting Faith	−.766	.519	2.181	1	.140	.465	.168	1.285
	BMMRS: Private Religious Practice	−1.270	.500	6.449	1	.011*	.281	.105	.748
	SS: Self-Awareness	.785	.340	5.347	1	.021*	2.193	1.127	4.265
	SS: Spiritual Beliefs and Practices	.001	.402	.000	1	.998	1.001	.455	2.201
	ECR-S: Comfort with Closeness	−.062	.205	.091	1	.763	.940	.629	1.406
	ECR-S: Concern with Closeness	.030	.212	.021	1	.886	1.031	.681	1.562
	Friendship Scale	−.739	.545	1.842	1	.175	.478	.164	1.388
	GAD-7	.362	.273	1.751	1	.186	1.436	.840	2.455
	INSPIRIT: Spiritual-Religious Connection	.414	.454	.833	1	.362	1.513	.622	3.683
	Intrinsic Spirituality Scale	−.639	.387	2.730	1	.099	.528	.247	1.126
	Quest: Questioning	−.192	.239	.648	1	.421	.825	.516	1.318

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	Rosenberg Self-Esteem	.880	.289	9.307	1	.002**	2.411	1.370	4.245
	TCI-ST: Self-forgetful vs. Self-conscious	−.148	.247	.361	1	.548	.862	.531	1.399
	TCI-ST: Transpersonal Identification	−.676	.285	5.620	1	.018*	.508	.291	.889

Note. Results are compared to the *everyday believer* class.

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

Table C25

Multinomial Logistic Regression, Predictors of the Strained Believer Class

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	Intercept	−1.145	.139	68.143	1	< .001			
Males ×	Male	.107	.157	.462	1	.497	1.113	.818	1.514
	BMMRS: *Experiential Comforting Faith*	−.058	.193	.090	1	.764	.944	.646	1.378
	BMMRS: *Private Religious Practice*	.333	.175	3.601	1	.058	1.395	.989	1.967
	SS: *Self-Awareness*	−.103	.121	.733	1	.392	.902	.712	1.142
	SS: *Spiritual Beliefs and Practices*	−.194	.145	1.800	1	.180	.823	.620	1.094
	ECR-S: *Comfort with Closeness*	.163	.072	5.033	1	.025*	1.176	1.021	1.356
	ECR-S: *Concern with Closeness*	.141	.075	3.511	1	.061	1.152	.994	1.335
	Friendship Scale	−.239	.193	1.527	1	.217	.788	.540	1.150
	GAD-7	.003	.085	.002	1	.968	1.003	.850	1.184
	INSPIRIT: *Spiritual-Religious Connection*	−.276	.167	2.718	1	.099	.759	.547	1.053
	Intrinsic Spirituality Scale	−.182	.138	1.746	1	.186	.834	.637	1.092
	Quest: *Questioning*	.255	.088	8.357	1	.004**	1.290	1.085	1.533
	Rosenberg Self-Esteem	−.258	.103	6.255	1	.012*	.772	.631	.946
	TCI-ST: *Self-forgetful vs. Self-conscious*	.161	.093	2.984	1	.084	1.175	.979	1.410
	TCI-ST: *Transpersonal Identification*	−.135	.098	1.897	1	.168	.874	.721	1.059
Females ×	Female	—							
	BMMRS: *Experiential Comforting Faith*	.004	.295	.000	1	.988	1.004	.564	1.790
	BMMRS: *Private Religious Practice*	−.174	.294	.350	1	.554	.840	.472	1.496
	SS: *Self-Awareness*	−.183	.195	.883	1	.348	.833	.569	1.220
	SS: *Spiritual Beliefs and Practices*	−.367	.236	2.409	1	.121	.693	.436	1.101
	ECR-S: *Comfort with Closeness*	.248	.129	3.693	1	.055	1.281	.995	1.649
	ECR-S: *Concern with Closeness*	.299	.128	5.428	1	.020*	1.348	1.049	1.733
	Friendship Scale	−.202	.315	.412	1	.521	.817	.440	1.515
	GAD-7	−.137	.149	.847	1	.357	.872	.652	1.167
	INSPIRIT: *Spiritual-Religious Connection*	−.436	.271	2.588	1	.108	.647	.380	1.100
	Intrinsic Spirituality Scale	.148	.222	.446	1	.504	1.160	.750	1.793
	Quest: *Questioning*	.166	.146	1.280	1	.258	1.180	.886	1.573

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	Rosenberg Self-Esteem	−.376	.164	5.233	1	.022*	.687	.497	.948
	TCI-ST: *Self-forgetful vs. Self-conscious*	.164	.158	1.072	1	.301	1.178	.864	1.606
	TCI-ST: *Transpersonal Identification*	−.335	.174	3.720	1	.054	.715	.508	1.005

Note. Results are compared to the *everyday believer* class.

$^{***}p < .001$. $^{**}p < .01$. $^{*}p < .05$.

Table C26

Multinomial Logistic Regression, Predictors of the Intrinsic Detached Believer Class

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	Intercept	−4.145	.466	79.126	1	.000			
Males ×	Male	1.134	.499	5.165	1	.023	3.109	1.169	8.270
	BMMRS: *Experiential Comforting Faith*	−.106	.332	.103	1	.748	.899	.469	1.722
	BMMRS: *Private Religious Practice*	.114	.294	.151	1	.698	1.121	.630	1.993
	SS: *Self-Awareness*	−.255	.206	1.520	1	.218	.775	.517	1.162
	SS: *Spiritual Beliefs and Practices*	.273	.271	1.016	1	.314	1.314	.773	2.233
	ECR-S: *Comfort with Closeness*	.078	.122	.410	1	.522	1.081	.852	1.372
	ECR-S: *Concern with Closeness*	.442	.126	12.385	1	< .001***	1.556	1.216	1.990
	Friendship Scale	−.735	.327	5.065	1	.024*	.479	.253	.909
	GAD-7	.445	.142	9.787	1	.002**	1.561	1.181	2.063
	INSPIRIT: *Spiritual-Religious Connection*	.085	.291	.085	1	.771	1.088	.615	1.925
	Intrinsic Spirituality Scale	−.055	.244	.050	1	.822	.947	.587	1.528
	Quest: *Questioning*	.548	.153	12.872	1	< .001***	1.730	1.282	2.333
	Rosenberg Self-Esteem	−.481	.182	7.003	1	.008**	.618	.433	.883
	TCI-ST: *Self-forgetful vs. Self-conscious*	.068	.158	.185	1	.667	1.070	.786	1.458
	TCI-ST: *Transpersonal Identification*	−.411	.162	6.431	1	.011*	.663	.482	.911
Females ×	Female	—							
	BMMRS: *Experiential Comforting Faith*	.813	.574	2.011	1	.156	2.255	.733	6.941
	BMMRS: *Private Religious Practice*	−.085	.592	.021	1	.885	.918	.288	2.927
	SS: *Self-Awareness*	−.715	.404	3.137	1	.077	.489	.222	1.079
	SS: *Spiritual Beliefs and Practices*	.574	.468	1.502	1	.220	1.775	.709	4.443
	ECR-S: *Comfort with Closeness*	−.548	.278	3.870	1	.049*	.578	.335	.998
	ECR-S: *Concern with Closeness*	.557	.259	4.628	1	.031*	1.745	1.051	2.898
	Friendship Scale	−2.437	.657	13.777	1	< .001***	.087	.024	.317
	GAD-7	.378	.289	1.706	1	.192	1.459	.828	2.573
	INSPIRIT: *Spiritual-Religious Connection*	−.651	.509	1.637	1	.201	.522	.192	1.414
	Intrinsic Spirituality Scale	−.220	.424	.271	1	.603	.802	.350	1.840
	Quest: *Questioning*	.756	.286	6.976	1	.008**	2.129	1.215	3.731
	Rosenberg Self-Esteem	−.452	.348	1.688	1	.194	.636	.322	1.259

Gender	Measure: Construct	*b*	SE	Wald	*df*	p-value	Exp(B)	95% CI	
								Lower	Upper
	TCI-ST: *Self-forgetful vs. Self-conscious*	.626	.314	3.978	1	.046*	1.871	1.011	3.461
	TCI-ST: *Transpersonal Identification*	−1.065	.366	8.495	1	.004**	.345	.168	.705

Note. Results are compared to the *everyday believer* class.

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

Table C27

Confirmatory Factor Analysis, Brief Multidimensional Measure of Religion and Spirituality, First-Order Factors

	F1. Experiential Comforting Faith	λ	SE	r^2	ε
7	I believe in a God who watches over me.[1]	.903	.007	.815	.185
19	I look to God for strength, support, and guidance.[2]	.884	.007	.781	.219
1	The events in my life unfold according to a divine or greater plan.[3]	.811	.009	.658	.342
4	I desire to be closer to or in unison with God.[4]	.849	.006	.720	.280
	F2. Forgiveness	λ	SE	r^2	ε
9	Because of my religious or spiritual beliefs I have forgiven myself for things that I have done wrong.[5]	.786	.010	.618	.382
10	Because of my religious or spiritual beliefs I have forgiven those who hurt me.[5]	.798	.010	.637	.363
11	Because of my religious or spiritual beliefs I know that God forgives me.[5]	.920	.008	.847	.153
	F3. Personal Spirituality	λ	SE	r^2	ε
17	I think about how my life is part of a larger spiritual force.[2]	.720	.012	.519	.481
38	To what extent do you consider yourself a spiritual person?[6]	.793	.011	.629	.371
6	I am spiritually touched by the beauty of creation.[4]	.703	.011	.495	.505
	F4. Private Religious Practices	λ	SE	r^2	ε
34	How often do you go to religious services?[6]	.846	.007	.715	.285
35	Besides religious services, how often do you take part in other activities at a place of worship?[6]	.758	.010	.575	.425
16	How often are prayers or grace said before or after meals in your home?[7]	.720	.012	.519	.481
15	How often do you read the Bible or other religious literature?[7]	.897	.008	.805	.195

Note. Superscripts correspond to the following subscales in the original measure: 1 = *Values/Beliefs*; 2 = *Religious and Spiritual Coping*; 3 = *Meaning*; 4 = *Daily Spiritual Experiences*; 5 = *Forgiveness*; 6 = *Organizational Religiousness*; 7 = *Private Religious Practices*.

Table C28

Confirmatory Factor Analysis, Brief Multidimensional Measure of Religion and Spirituality With Higher-Order Factor

	HO. Personal spiritual/religious beliefs and practices	λ	SE	r^2	ε
F1	Experiential Comforting Faith	.982	.006	.736	.264
F2	Forgiveness	.858	.008	.964	.036
F3	Personal Spirituality	.893	.010	.798	.202
F4	Private Religious Practices	.771	.010	.595	.405

	F1	F2	F3	F4	HO
Internal Consistency	.873 [.864–.882]	.800 [.785–.816]	.732 [.706–.741]	.870 [.862–.877]	.828 [.817–.840]
Mean	14.58	9.53	10.02	14.57	48.74
Standard deviation	3.36	2.08	2.70	6.06	12.02
Range	4–18	3–12	3–14	4–24	14–68

Table C29

Item Correlations and Descriptive Statistics of the Brief Multidimensional Measure of Religion and Spirituality

	Items	7	19	1	4	9	10	11
7	I believe in a God who watches over me.[1]	—	.684	.634	.633	.463	.461	.667
19	I look to God for strength, support, and guidance.[2]	.818	—	.588	.679	.467	.478	.626
1	The events in my life unfold according to a divine or greater plan.[3]	.766	.691	—	.597	.440	.452	.537
4	I desire to be closer to or in unison with God.[4]	.745	.744	.669	—	.471	.497	.579
9	Because of my religious or spiritual beliefs I have forgiven myself for things that I have done wrong.[5]	.599	.560	.522	.520	—	.601	.581
10	Because of my religious or spiritual beliefs I have forgiven those who hurt me.[5]	.579	.569	.530	.549	.691	—	.559
11	Because of my religious or spiritual beliefs I know that God forgives me.[5]	.778	.733	.635	.646	.715	.670	—
17	I think about how my life is part of a larger spiritual force.[2]	.499	.566	.564	.544	.436	.435	.447
38	To what extent do you consider yourself a spiritual person?[6]	.530	.591	.544	.582	.487	.502	.500
6	I am spiritually touched by the beauty of creation.[4]	.529	.544	.513	.593	.432	.480	.491
34	How often do you go to religious services?[6]	.561	.556	.507	.566	.405	.441	.506
35	Besides religious services, how often do you take part in other activities at a place of worship?[6]	.460	.463	.432	.490	.368	.390	.436
16	How often are prayers or grace said before or after meals in your home?[7]	.505	.483	.438	.488	.344	.401	.425
15	How often do you read the Bible or other religious literature?[7]	.582	.614	.549	.621	.464	.510	.534
	Mean	3.57	3.23	3.32	4.46	2.94	3.15	3.44
	Standard deviation	.694	.967	.777	1.47	.836	.810	.805
	Median	4	4	3	5	3	3	4
	Mode	4	4	4	6	3	3	4

Table C29 (continued)

	Items	17	38	6	34	35	16	15
7	I believe in a God who watches over me.[1]	.368	.409	.422	.460	.341	.380	.425
19	I look to God for strength, support, and guidance.[2]	.468	.503	.481	.502	.392	.403	.515
1	The events in my life unfold according to a divine or greater plan.[3]	.469	.457	.450	.445	.360	.367	.454
4	I desire to be closer to or in unison with God.[4]	.489	.532	.557	.542	.451	.442	.567
9	Because of my religious or spiritual beliefs I have forgiven myself for things that I have done wrong.[5]	.377	.421	.390	.378	.329	.298	.407
10	Because of my religious or spiritual beliefs I have forgiven those who hurt me.[5]	.374	.433	.433	.412	.34	.345	.438
11	Because of my religious or spiritual beliefs I know that God forgives me.[5]	.356	.415	.420	.438	.352	.343	.420
17	I think about how my life is part of a larger spiritual force.[2]	—	.515	.466	.359	.345	.324	.392
38	To what extent do you consider yourself a spiritual person?[6]	.593	—	.476	.468	.401	.387	.516
6	I am spiritually touched by the beauty of creation.[4]	.515	.522	—	.338	.308	.288	.360
34	How often do you go to religious services?[6]	.392	.501	.348	—	.646	.570	.708
35	Besides religious services, how often do you take part in other activities at a place of worship?[6]	.388	.456	.332	.696	—	.501	.632
16	How often are prayers or grace said before or after meals in your home?[7]	.371	.436	.319	.606	.544	—	.588
15	How often do you read the Bible or other religious literature?[7]	.450	.594	.393	.738	.661	.634	—
	Mean	2.75	3.07	4.20	4.05	3.17	3.32	4.02
	Standard deviation	1.00	.878	1.44	1.60	1.76	1.47	2.34
	Median	3	3	4	5	3	4	4
	Mode	2	3	5	5	1	5	7

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Superscripts correspond to the following subscales in the original measure: 1 = *Values/Beliefs*; 2 = *Religious and Spiritual Coping*; 3 = *Meaning*; 4 = *Daily Spiritual Experiences*; 5 = *Forgiveness*; 6 = *Organizational Religiousness*; 7 = *Private Religious Practices*. See Appendix D for item response scale stimuli.

Figure C14

Confirmatory Factor Analysis Diagram of the Brief Multidimensional Measure of Religion and Spirituality

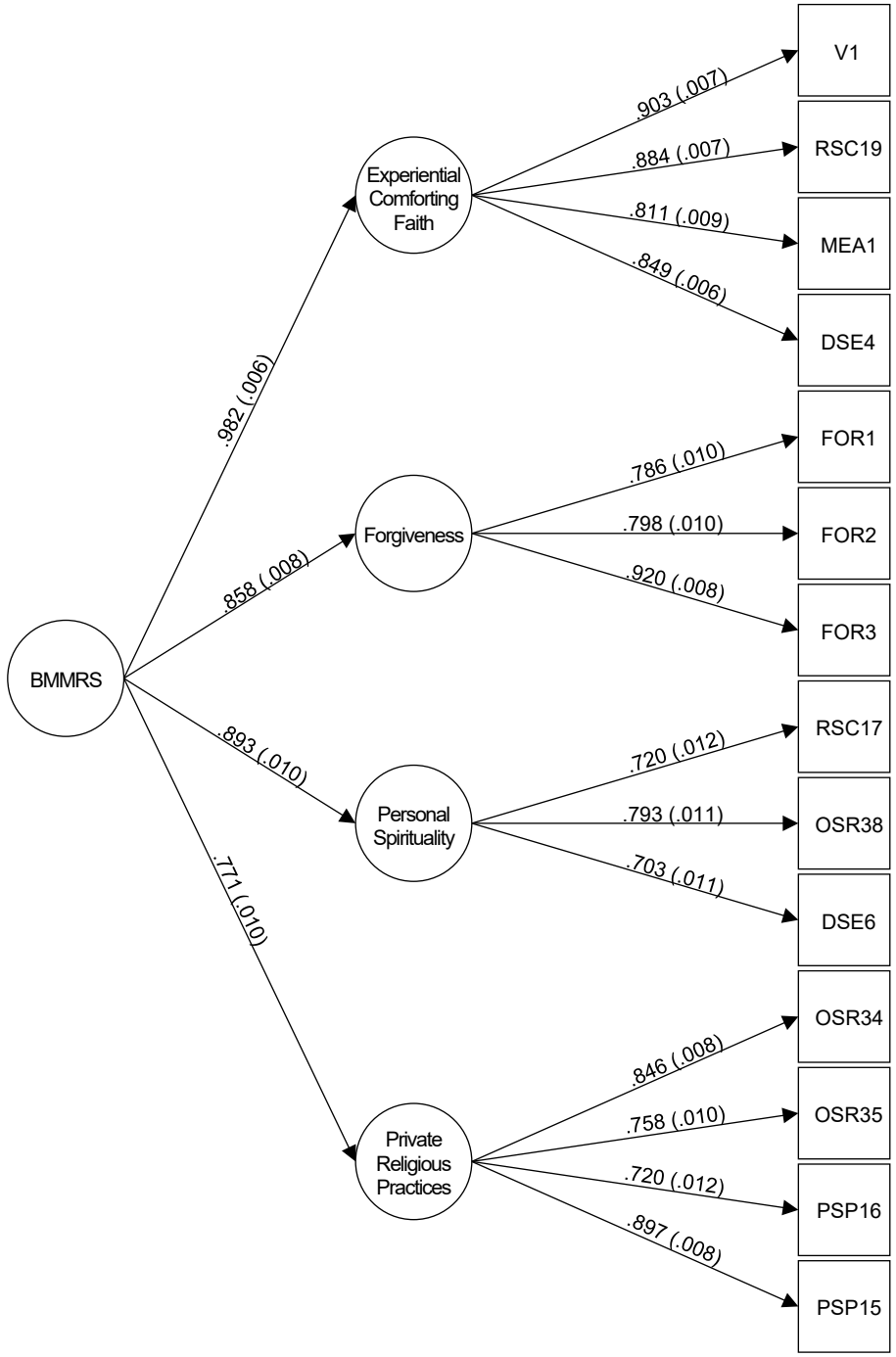

Table C30

Confirmatory Factor Analysis, Spirituality Scale

	F1. Self-Discovery	λ	SE	r^2	ε
2	I have a sense of purpose.	.920	.008	.846	.154
3	I am happy about the person I have become.	.716	.010	.513	.487
1	I find meaning in my life experiences.	.833	.009	.694	.306
	F2. Eco-Awareness	λ	SE	r^2	ε
22	I believe that nature should be respected.	.795	.010	.632	.368
17	I believe that all living creatures deserve respect.	.802	.010	.643	.357
19	The earth is sacred.	.794	.011	.631	.369
	F3. Spiritual Beliefs and Practices	λ	SE	r^2	ε
28	My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life.	.890	.006	.791	.209
23	I have a relationship with a Higher Power/Universal Intelligence.	.931	.006	.866	.134
16	My spirituality gives me inner strength.	.845	.007	.714	.286

	F1	F2	F3
Inter-factor correlations (*r*)	—	.398	.505
		—	.397
			—
Internal Consistency (McDonald's ω)	.829 [.814–.844]	.779 [.760–.798]	.884 [.873–.894]
Mean	14.45	14.99	14.75
Standard deviation	2.81	2.56	3.51
Range	3–18	3–18	3–18

Figure C15

Confirmatory Factor Analysis Diagram of the Spirituality Scale

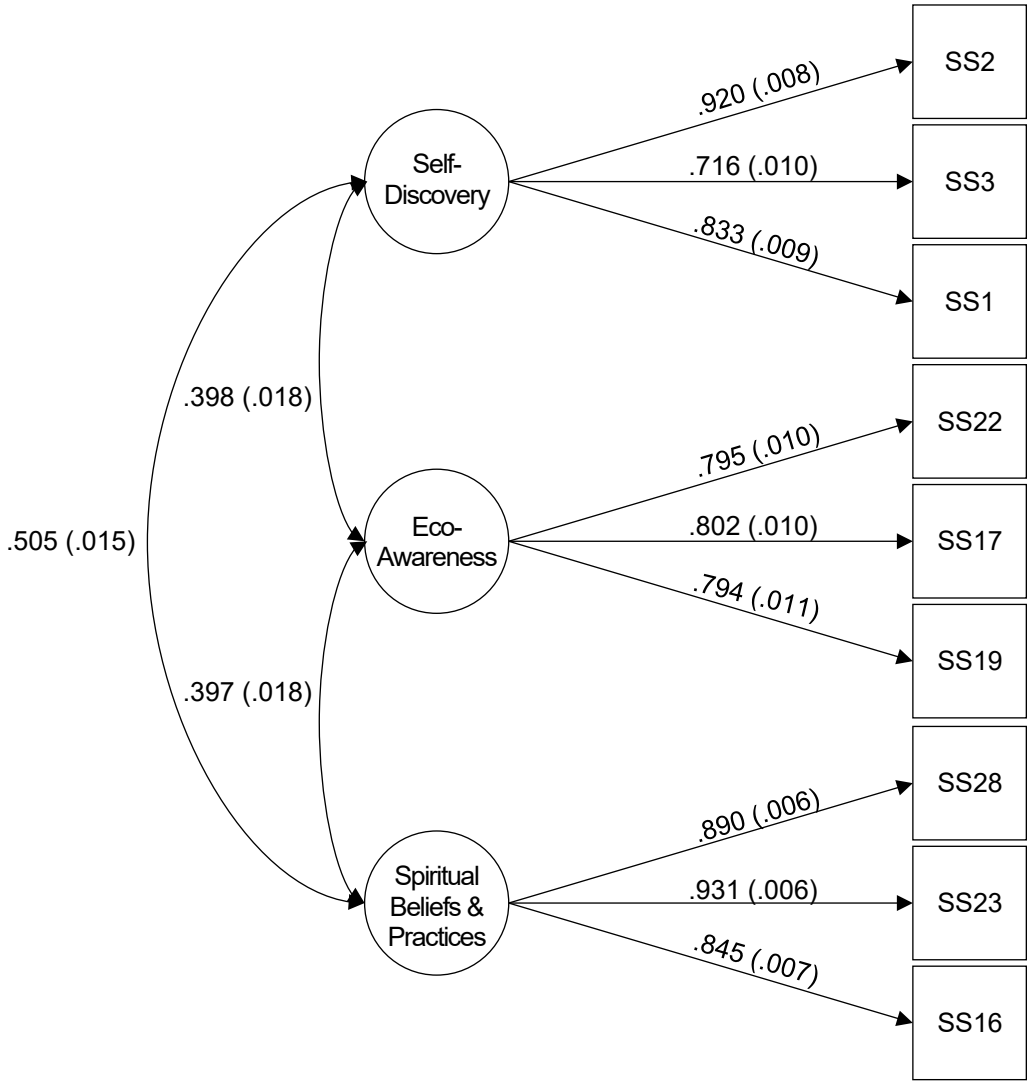

Table C31

Item Correlations and Descriptive Statistics of the Spirituality Scale

	Items	2	3	1	22	17	19	28	23	16
2	I have a sense of purpose.	—	.634	.681	.231	.231	.250	.372	.329	.279
3	I am happy about the person I have become.	.698	—	.504	.176	.190	.182	.271	.241	.179
1	I find meaning in my life experiences.	.750	.565	—	.290	.298	.277	.349	.329	.302
22	I believe that nature should be respected.	.243	.185	.315	—	.581	.538	.165	.208	.23
17	I believe that all living creatures deserve respect.	.257	.205	.334	.670	—	.513	.206	.222	.262
19	The earth is sacred.	.276	.198	.319	.630	.599	—	.241	.289	.306
28	My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life.	.447	.324	.427	.183	.238	.290	—	.769	.651
23	I have a relationship with a Higher Power/Universal Intelligence.	.408	.296	.411	.233	.269	.350	.830	—	.698
16	The earth is sacred.	.351	.217	.379	.251	.326	.383	.742	.790	—
	Mean	4.89	4.65	4.92	5.09	5.02	4.88	4.76	4.84	5.15
	Standard deviation	1.09	1.12	1.06	.936	1.02	1.12	1.36	1.34	1.20
	Median	5	5	5	5	5	5	5	5	5
	Mode	5	5	5	5	6	6	6	6	6

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Mostly Disagree*; 4 = *Mostly Agree*; 5 = *Agree*; 6 = *Strongly Agree.*

Table C32

Confirmatory Factor Analysis, Index of Core Spiritual Experiences Scale

	F1. Spiritual-Religious Connection	λ	SE	r^2	ε
1	How strongly religious (or spiritually oriented) do you consider yourself to be?	.885	.010	.783	.217
2	About how often do you spend time on religious or spiritual practices?	.827	.010	.683	.317
4	How close do you feel to God?	.751	.011	.563	.437
	F2. Positive Emotional Experiences	λ	SE	r^2	ε
7h	An experience of complete joy and ecstasy.	.891	.005	.794	.206
7f	An overwhelming experience of love.	.906	.004	.821	.179
7g	An experience of profound inner peace.	.938	.004	.880	.120

	F1	F2
Correlation	—	.590
		—
Internal Consistency (McDonald's ω)	.810 [.796–.823]	.890 [.880–.889]
Mean	10.60	8.65
Standard deviation	2.73	2.67
Range	3–14	3–12

Figure C16

Confirmatory Factor Analysis Diagram of the Index of Core Spiritual Experiences Scale

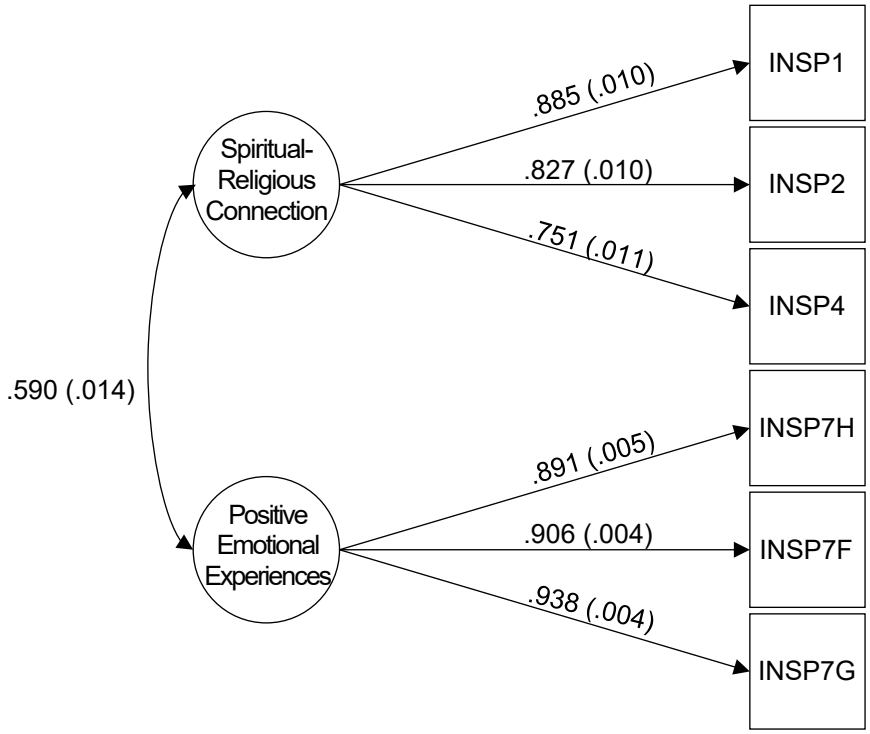

Table C33

Item Correlations and Descriptive Statistics of the Index of Core Spiritual Experiences Scale

	Items	1	2	4	7h	7f	7g
1	How strongly religious (or spiritually oriented) do you consider yourself to be?	—	.666	.564	.372	.399	.413
2	About how often do you spend time on religious or spiritual practices?	.751	—	.490	.349	.389	.411
4	How close do you feel to God?	.655	.574	—	.374	.392	.397
7h	An experience of complete joy and ecstasy.	.428	.392	.436	—	.698	.737
7f	An overwhelming experience of love.	.459	.435	.460	.809	—	.746
7g	An experience of profound inner peace.	.474	.463	.461	.837	.847	—
	Mean	3.89	3.70	3.09	2.81	2.98	2.87
	Standard deviation	1.00	1.43	1.28	.999	.945	1.01
	Median	4	4	3	3	3	3
	Mode	4	5	3	3	3	3

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Mostly Disagree*; 4 = *Mostly Agree*; 5 = *Agree*; 6 = *Strongly Agree.*

Table C34

Confirmatory Factor Analysis, Self-Transcendence Subscale

	F1. Transpersonal Identification	λ	SE	r^2	ε
1	I often feel a strong sense of unity with all the things around me.	.703	.013	.495	.505
3	I sometimes feel so connected to nature that everything seems to be part of one living process.	.744	.012	.553	.447
5	Sometimes I have felt like I was part of something with no limits or boundaries in time and space.	.673	.014	.454	.546
	F2. Spiritual Acceptance	λ	SE	r^2	ε
14	I have had personal experiences in which I felt in contact with a divine and wonderful spiritual power.	.816	.008	.666	.334
16	Religious experiences have helped me to understand the real purpose of my life.	.828	.008	.686	.314
17	I believe that all life depends on some spiritual order or power that cannot be completely explained.	.704	.010	.496	.504
7	Sometimes I have felt my life was being directed by a spiritual force greater than any human being.	.815	.008	.665	.335
	F3. Self-Forgetfulness vs. Self-Conscious	λ	SE	r^2	ε
12	It often seems to other people like I am in another world because I am so completely unaware of things going on around me.	.747	.012	.559	.441
19	I am often called "absent-minded" because I get so wrapped up in what I am doing that I lose track of everything else.	.841	.011	.707	.293
24	I think it is unwise to believe in things that cannot be explained scientifically.	.681	.012	.464	.536

	F1	F2	F3
Correlations	—	.396	.369
		—	−.053
			—
Internal Consistency (McDonald's ω)	.711 [95% CI: .690–.731]	.792 [95% CI: .776–.808]	.763 [.747–.780]
Mean	9.19	14.59	7.80
Standard deviation	2.53	3.83	2.94
Range	3–15	4–20	3–15

Figure C17

Confirmatory Factor Analysis Diagram of the Self-Transcendences Subscale of the Temperament and Character Inventory

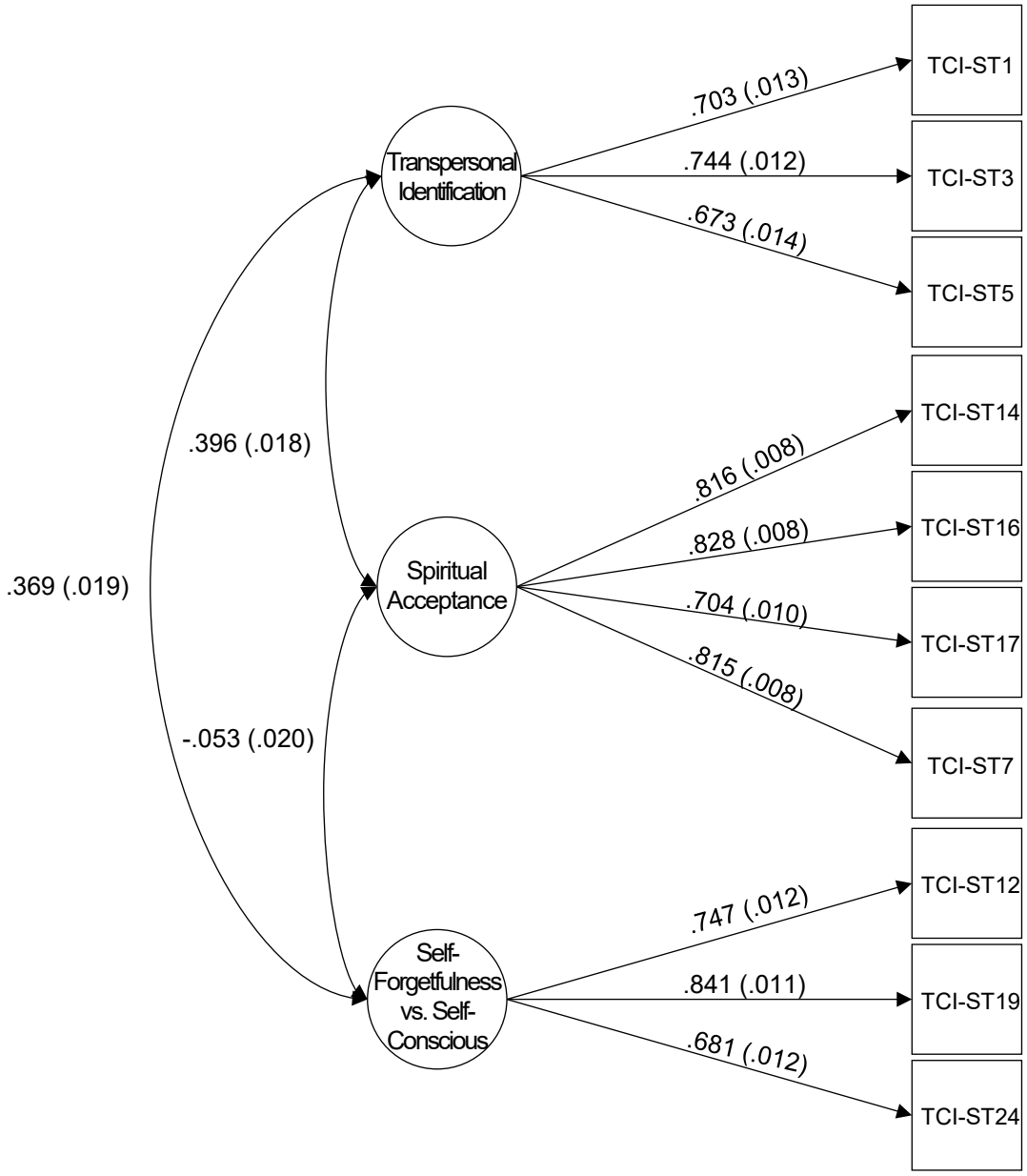

Table C35

Item Correlations and Descriptive Statistics of the Self-Transcendence Subscale

	Items	1	3	5	14	16	17	7	12	19	24
1	I often feel a strong sense of unity with all the things around me.	—	.535	.371	.200	.196	.160	.189	.117	.118	.169
3	I sometimes feel so connected to nature that everything seems to be part of one living process.	.587	—	.424	.153	.108	.126	.156	.223	.220	.237
5	Sometimes I have felt like I was part of something with no limits or boundaries in time and space.	.411	.463	—	.297	.213	.183	.298	.156	.146	.186
14	I have had personal experiences in which I felt in contact with a divine and wonderful spiritual power.	.226	.168	.343	—	.622	.474	.599	−.030	−.012	.035
16	Religious experiences have helped me to understand the real purpose of my life.	.222	.117	.252	.686	—	.549	.590	−.052	−.059	−.026
17	I believe that all life depends on some spiritual order or power that cannot be completely explained.	.182	.141	.216	.538	.609	—	.525	−.025	−.001	.011
7	Sometimes I have felt my life was being directed by a spiritual force greater than any human being.	.217	.172	.354	.667	.654	.587	—	−.046	−.039	.015
12	It often seems to other people like I am in another world because I am so completely unaware of things going on around me.	.136	.255	.173	−.045	−.072	−.040	−.071	—	.581	.429
19	I am often called “absent-minded” because I get so wrapped up in what I am doing that I lose track of everything else.	.136	.252	.163	−.019	−.073	−.005	−.056	.641	—	.512
24	I think it is unwise to believe in things that cannot be explained scientifically.	.188	.264	.205	.034	−.032	.010	.014	.484	.573	—
	Mean	3.15	2.92	3.11	3.47	3.66	3.74	3.73	2.45	2.59	2.76
	Standard deviation	.933	1.13	1.13	1.23	1.18	1.11	1.15	1.17	1.22	1.18
	Median	3	3	3	4	4	4	4	2	3	3
	Mode	3	3	3	4	4	4	4	3	3	3

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Definitely False*; 2 = *Somewhat False*; 3 = *Neutral*; 4 = *Somewhat True*; 5 = *Definitely True.*

Table C36

Confirmatory Factor Analysis, Quest Scale

	F1. Quest	λ	SE	r^2	ε
1	As I grow and change, I expect my religion also to grow and change.	.325	.017	.106	.894
2	I am constantly questioning my religious beliefs.	.681	.012	.464	.536
3	It might be said that I value my religious doubts and uncertainties.	.781	.011	.609	.391
4	I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.	.440	.015	.194	.806
5	For me, doubting is an important part of what it means to be religious.	.702	.012	.492	.508

	F1
Internal Consistency (McDonald's ω)	.693 [.674–.712]
Mean	14.87
Standard deviation	3.56
Range	5–25

Figure C18

Confirmatory Factor Analysis Diagram of the Quest Scale

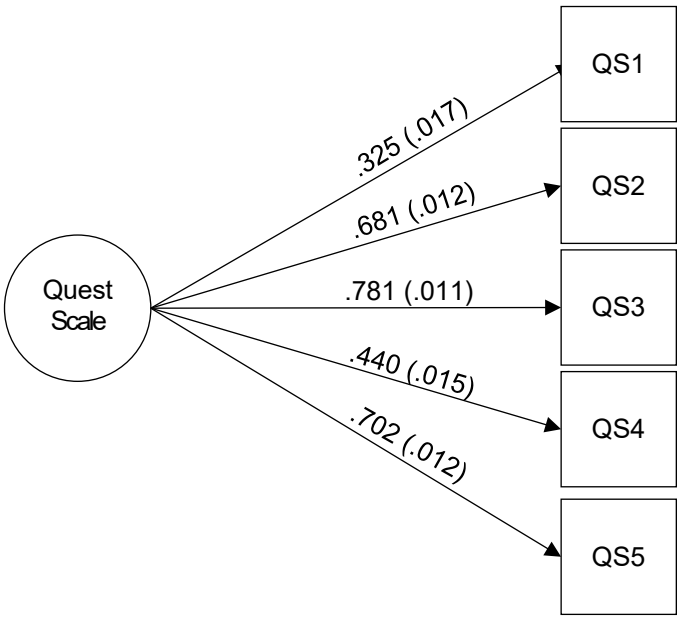

Table C37

Item Correlations and Descriptive Statistics of the Quest Scale

	Items	1	2	3	4	5
1	As I grow and change, I expect my religion also to grow and change.	—	.249	.220	.107	.183
2	I am constantly questioning my religious beliefs.	.272	—	.481	.294	.395
3	It might be said that I value my religious doubts and uncertainties.	.245	.533	—	.268	.516
4	I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.	.110	.335	.297	—	.304
5	For me, doubting is an important part of what it means to be religious.	.204	.439	.565	.337	—
	Mean	3.48	2.59	3.05	2.66	3.09
	Standard deviation	1.12	1.11	1.02	1.07	1.06
	Median	4	3	3	3	3
	Mode	4	2	3	2	3

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Neither Agree or Disagree*; 4 = *Agree*; 5 = *Strongly Agree.*

Table C38

Confirmatory Factor Analysis, Intrinsic Spirituality Scale

	F1. Intrinsic Spirituality Scape	λ	SE	r^2	ε
1	In terms of the questions I have about life, my spirituality answers . . .	.845	.007	.714	.286
2	Growing spiritually is . . .	.919	.004	.844	.156
3	When I am faced with an important decision, my spirituality . . .	.930	.004	.864	.136
4	Spirituality is . . .	.941	.004	.885	.115
5	When I think of things that help me to grow and mature as a person, my spirituality . . .	.952	.003	.907	.093
6	My spiritual beliefs affect . . .	.939	.005	.881	.119

	F1
Internal Consistency (α)	.971 [.969–.973]
Mean	45.90
Standard deviation	16.08
Range	6–66

Figure C19

Confirmatory Factor Analysis Diagram of the Intrinsic Spirituality Scale

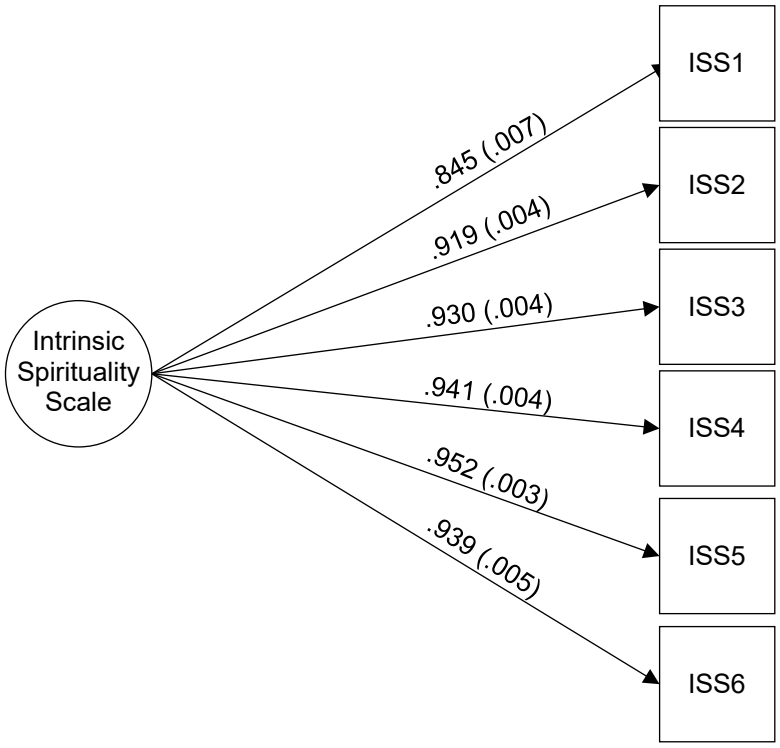

Table C39

Item Correlations and Descriptive Statistics of the Intrinsic Spirituality Scale

	Items	1	2	3	4	5	6
1	In terms of the questions I have about life, my spirituality answers . . .	—	.786	.808	.791	.794	.785
2	Growing spiritually is . . .		—	.852	.864	.876	.860
3	When I am faced with an important decision, my spirituality . . .			—	.876	.880	.871
4	Spirituality is . . .				—	.897	.882
5	When I think of things that help me to grow and mature as a person, my spirituality . . .					—	.900
6	My spiritual beliefs affect . . .						—
	Mean	6.94	7.97	7.48	7.75	7.88	7.87
	Standard deviation	2.94	2.83	2.91	2.80	2.85	2.88
	Median	8	9	8	8	9	9
	Mode	9	11	11	11	11	11

Note. Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table.

Table C40

Confirmatory Factor Analysis, Rosenberg Self-Esteem Survey

F1. Rosenberg Self-Esteem Survey		λ	SE	r^2	ε
1	On the whole, I am satisfied with myself.	.850	.007	.733	.267
2	At times I think I am no good at all.	−.674	.011	.801	.199
3	I feel that I have a number of good qualities.	.718	.010	.913	.087
4	I am able to do things as well as most other people.	−.601	.012	.550	.450
5	I feel I do not have much to be proud of.	.766	.011	.566	.434
6	I certainly feel useless at times.	.791	.012	.725	.275
7	I feel that I'm a person of worth, at least on an equal plane with others.	−.698	.010	.751	.249
8	I wish I could have more respect for myself.	−.509	.014	.423	.577
9	All in all, I am inclined to feel that I am a failure.	−.698	.010	.591	.409
10	I take a positive attitude toward myself.	.900	.006	.820	.180
Negatively Worded Item Method Factor		λ	SE		
2	At times I think I am no good at all.	.588	.014		
5	I feel I do not have much to be proud of.	.282	.016		
6	I certainly feel useless at times.	.603	.014		
8	I wish I could have more respect for myself.	.405	.016		
9	All in all, I am inclined to feel that I am a failure.	.322	.016		
Positively Worded Item Method Factor		λ	SE		
1	On the whole, I am satisfied with myself.	−.102	.017		
3	I feel that I have a number of good qualities.	.536	.023		
4	I am able to do things as well as most other people.	.186	.018		
7	I feel that I'm a person of worth, at least on an equal plane with others.	.405	.019		
10	I take a positive attitude toward myself.	−.097	.017		

	F1
Internal Consistency (McDonald's ω)	.672 [.668–.691]
Mean	30.40
Standard deviation	5.66
Range	10–40

Figure C20

Confirmatory Factor Analysis Diagram of the Rosenberg Self-Esteem Scale

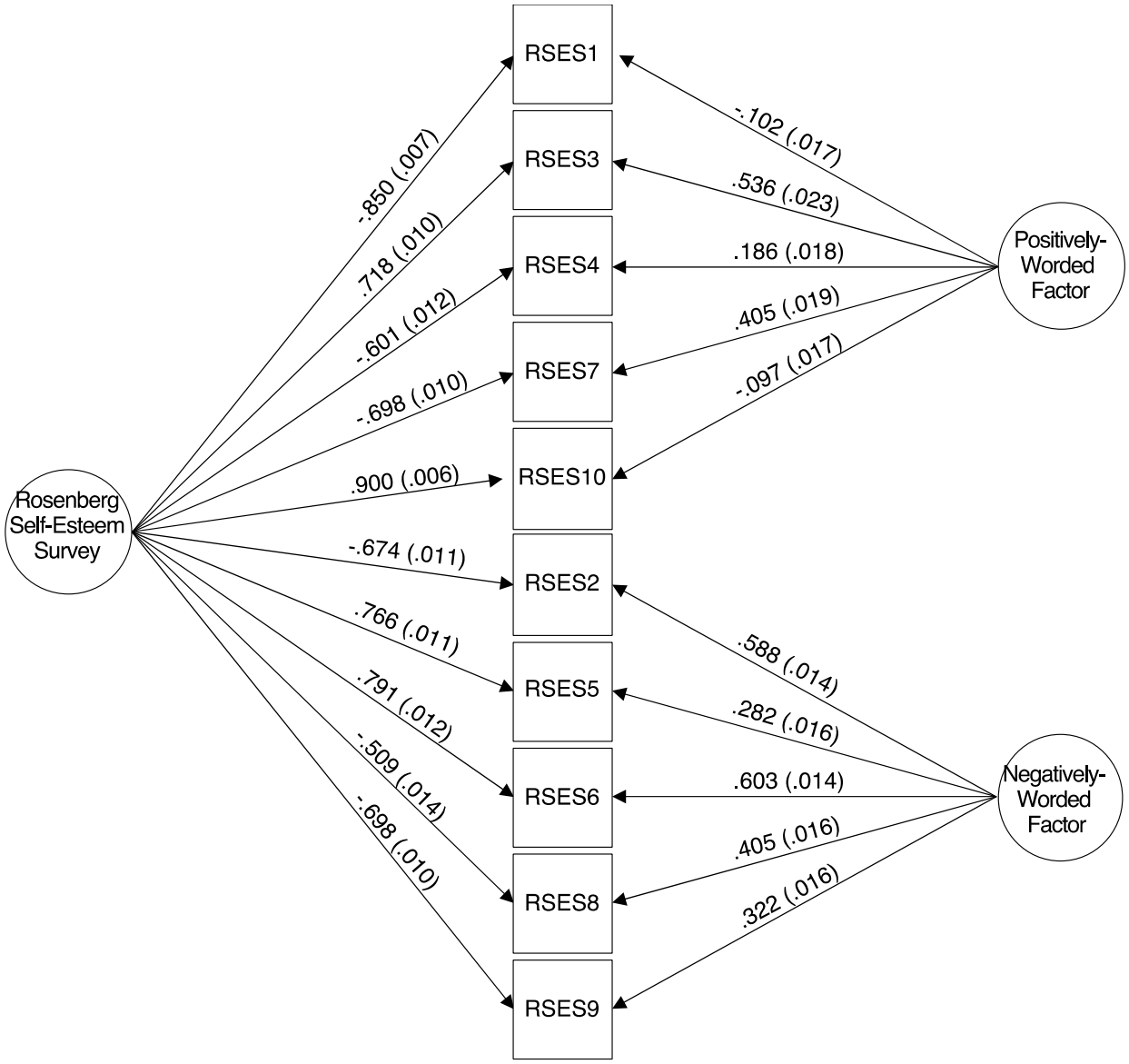

Table C41

Item Correlations and Descriptive Statistics of the Rosenberg Self-Esteem Survey

	Items	1	2	4	6	7	3	5	8	9	10
1	On the whole, I am satisfied with myself.	—	−.503	.497	.482	.465	−.455	.499	−.394	−.473	.692
2	At times I think I am no good at all. (R)	−.586	—	−.425	−.395	.519	.686	−.430	.497	.558	−.526
4	I am able to do things as well as most other people.	.621	−.532	—	.540	−.435	−.360	.710	−.293	−.437	.537
6	I certainly feel useless at times. (R)	.581	−.479	.670	—	−.425	−.365	.499	−.278	−.398	.527
7	I feel that I'm a person of worth, at least on an equal plane with others.	−.556	.607	−.554	−.526	—	.469	−.426	.374	.575	−.501
3	I feel that I have a number of good qualities.	−.530	.769	−.458	−.439	.554	—	−.358	.504	.477	−.485
5	I feel I do not have much to be proud of. (R)	.613	−.529	.824	.621	−.539	−.453	—	−.283	−.432	.532
8	I wish I could have more respect for myself. (R)	−.462	.573	−.377	−.337	.448	.571	−.363	—	.388	−.420
9	All in all, I am inclined to feel that I am a failure. (R)	−.565	.652	−.555	−.497	.673	.568	−.542	.468	—	−.500
10	I take a positive attitude toward myself.	.781	−.611	.664	.632	−.597	−.566	.647	−.494	−.595	—
	Mean	3.01	2.11	3.19	2.35	3.38	3.44	1.90	2.52	1.83	3.07
	Standard deviation	.753	.927	.682	.886	.674	.635	.813	.915	.793	.760
	Median	3	2	3	2	3	4	2	3	2	3
	Mode	3	2	3	3	4	4	2	3	2	3

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: Response scale: 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Agree*; 4 = *Strongly Agree.*

Table C42

Confirmatory Factor Analysis, Friendship Scale

F1. Friendship Scale		λ	SE	r^2	ε
1	It has been easy to relate to others.	.470	.015	.324	.676
2	I felt isolated from other people.	−.838	.008	.702	.298
3	I had someone to share my feelings with.	.516	.015	.617	.383
4	I found it easy to get in touch with others when I needed to.	.584	.013	.929	.071
5	When with other people, I felt separate from them.	−.810	.008	.656	.344
6	I felt alone and friendless.	−.848	.008	.718	.282
F2. Method Factor		λ	SE		
1	It has been easy to relate to others.	.321	.018		
3	I had someone to share my feelings with.	.592	.020		
4	I found it easy to get in touch with others when I needed to.	.767	.023		

	F1
Internal Consistency (McDonald's ω)	.617 [95% CI: .580–.656]
Mean	22.70
Standard deviation	4.64
Range	6–30

Figure C21

Confirmatory Factor Analysis Diagram of the Friendship Questionnaire

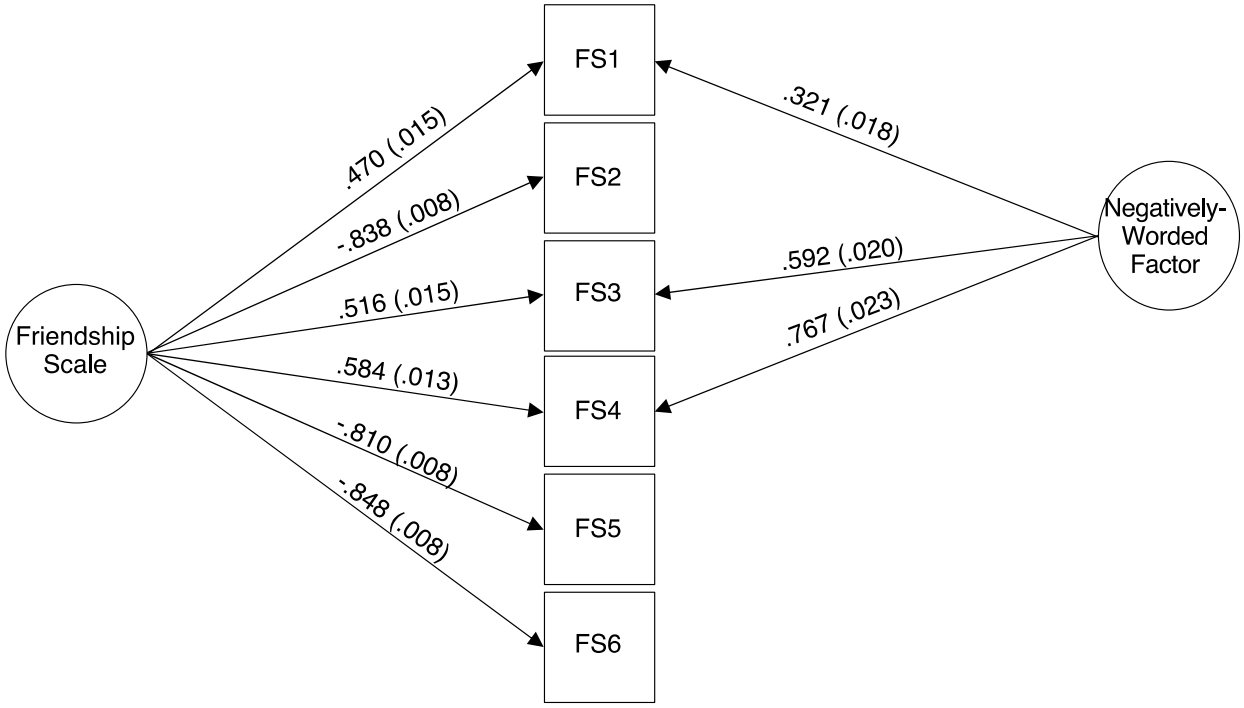

Table C43

Item Correlations and Descriptive Statistics of the Friendship Scale

	Items	1	2	3	4	5	6
1	It has been easy to relate to others. (R)	—	−.370	.382	.463	−.345	−.314
2	I felt isolated from other people.	−.416	—	−.377	−.425	.623	.633
3	I had someone to share my feelings with. (R)	.433	−.426	—	.682	−.345	−.397
4	I found it easy to get in touch with others when I needed to. (R)	.521	−.481	.755	—	−.392	−.449
5	When with other people, I felt separate from them.	−.389	.685	−.398	−.453	—	.614
6	I felt alone and friendless.	−.362	.702	−.462	−.521	.688	—
	Mean	3.61	2.29	3.84	3.74	2.23	1.98
	Standard deviation	1.03	.999	1.14	1.12	.986	1.02
	Median	4	2	4	4	2	2
	Mode	4	2	5	4	2	2

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Almost Always*; 2 = *Most of the Time*; 3 = *About Falf the Time*; 4 = *Occasionally*; 5 = *Not at All.*

Table C44

Confirmatory Factor Analysis, Experiences in Close Relationships–Short Form

	F1. Comfort with Closeness	λ	SE	r^2	ε
11	I want to get close to my partner, but I keep pulling back.	.747	.013	.558	.442
13	I am nervous when partners get too close to me.	.715	.014	.511	.489
17	I try to avoid getting too close to my partner.	.851	.011	.724	.276
	F2. Dependence/Disclosure				
27	I usually discuss my problems and concerns with my partner.	.768	.014	.590	.410
33	It helps to turn to my romantic partner in times of need.	.808	.014	.653	.347
35	I turn to my partner for many things, including comfort and reassurance.	.862	.012	.743	.257
	F3. Concern with Closeness	λ	SE	r^2	ε
26	I find that my partner(s) don't want to get as close as I would like.	.679	.018	.461	.539
6	I worry that romantic partners won't care about me as much as I care about them.	.633	.017	.401	.599
16	My desire to be very close sometimes scares people away.	.777	.016	.604	.396

	F1	F2	F3
Correlation	—	−.354	.567
		—	−.089
Internal Consistency (McDonald's ω)	.816 [95% CI: .803–.829]	.854 [95%CI: .840–.868]	.739 [95% CI: .721–.757].
Mean	10.04	16.12	10.63
Standard deviation	4.51	4.05	4.30
Range	3–21	3–21	3–21

Figure C22

Confirmatory Factor Analysis Diagram of the Experiences in Close Relationships–Short Form

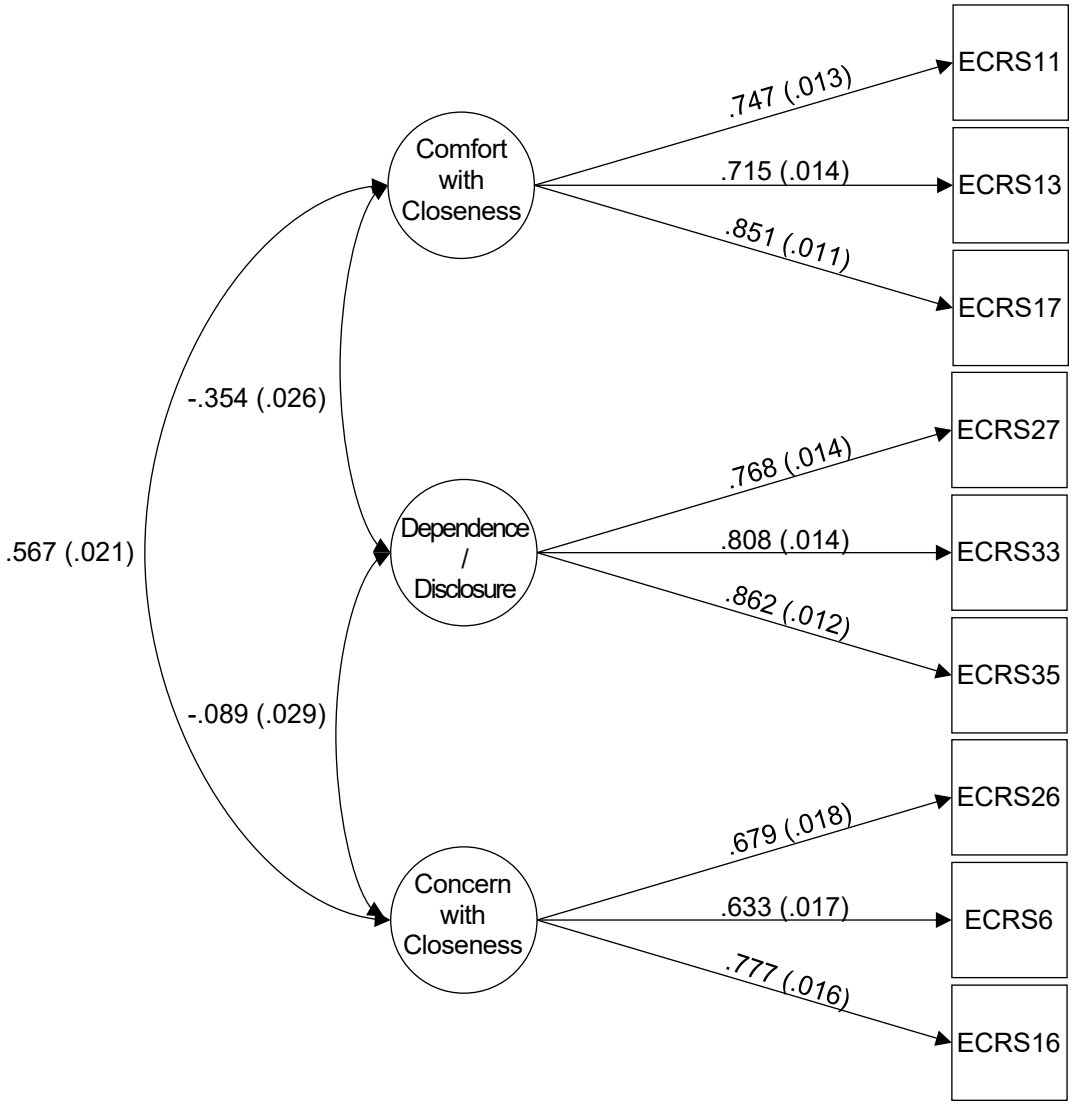

Table C45

Item Correlations and Descriptive Statistics of the Experiences in Close Relationships–Short Form

	Items	11	13	17	27	33	35	26	6	16
11	I want to get close to my partner, but I keep pulling back.	—	.545	.631	−.251	−.120	−.129	.357	.232	.371
13	I am nervous when partners get too close to me.		—	.607	−.272	−.214	−.226	.305	.161	.279
17	I try to avoid getting too close to my partner.			—	−.330	−.256	−.245	.341	.247	.393
27	I usually discuss my problems and concerns with my partner.				—	.613	.659	−.054	−.072	−.194
33	It helps to turn to my romantic partner in times of need.					—	.704	.053	−.024	−.134
35	I turn to my partner for many things, including comfort and reassurance.						—	.094	.024	−.102
26	I find that my partner(s) don't want to get as close as I would like.							—	.431	.507
6	I worry that romantic partners won't care about me as much as I care about them.								—	.516
16	My desire to be very close sometimes scares people away.									—
	Mean	3.62	3.17	3.26	5.25	5.46	5.39	3.20	4.28	3.15
	Standard deviation	1.82	1.70	1.75	1.53	1.57	1.51	1.72	1.87	1.72
	Median	4	3	3	6	6	6	3	4	3
	Mode	4	2	2	6	6	6	4	5	2

Note. Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Strongly disagree*; 2 = *Disagree*; 3 = *Slightly disagree*; 4 = *Neutral*; 5 = *Slightly agree*; 6 = *Agree*; 7 = *Strongly Agree.*

Table C46

Confirmatory Factor Analysis, Generalized Anxiety Disorder Assessment

	F1. Generalized Anxiety Disorder Assessment	λ	SE	r^2	ε
1	Feeling nervous, anxious or on edge.	.839	.008	.704	.296
2	Not being able to stop or control worrying.	.888	.006	.789	.211
3	Worrying too much about different things.	.856	.007	.733	.267
4	Trouble relaxing.	.837	.008	.701	.299
5	Being so restless that it is hard to sit still.	.751	.012	.564	.436
6	Becoming easily annoyed or irritable.	.676	.012	.458	.542
7	Feeling afraid as if something awful might happen.	.775	.010	.601	.399

	F1
Internal Consistency (McDonald's ω)	.900 [.894–.907]
Mean	12.97
Standard deviation	4.97
Range	3–28

Figure C23

Confirmatory Factor Analysis Diagram of the Generalized Anxiety Disorder Assessment

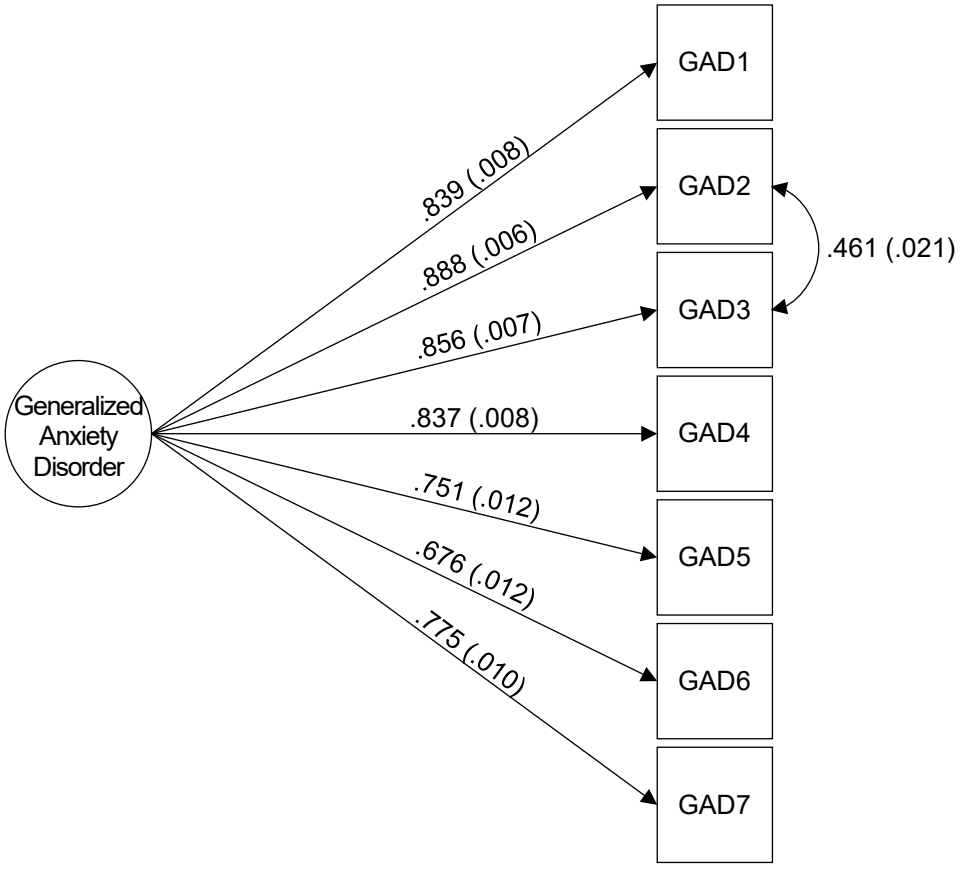

Table C47

Item Correlations and Descriptive Statistics of the Generalized Anxiety Disorder Assessment

	Items	1	2	3	4	5	6	7
1	Feeling nervous, anxious or on edge.	—	.692	.658	.606	.491	.460	.526
2	Not being able to stop or control worrying.	.773	—	.797	.650	.523	.513	.594
3	Worrying too much about different things.	.734	.870	—	.648	.481	.513	.561
4	Trouble relaxing.	.679	.726	.721	—	.589	.502	.522
5	Being so restless that it is hard to sit still.	.591	.623	.58	.702	—	.452	.491
6	Becoming easily annoyed or irritable.	.527	.582	.581	.572	.546	—	.463
7	Feeling afraid as if something awful might happen.	.633	.699	.669	.612	.599	.554	—
	Mean	2.03	1.91	2.11	1.88	1.52	1.93	1.60
	Standard deviation	.891	.964	.958	.918	.794	.895	.870
	Median	2	2	2	2	1	2	1
	Mode	2	1	2	1	1	2	1

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Not at all*; 2 = *Several*; 3 = *More than half the day*; 4 = *Nearly every day.*

Table C48

Confirmatory Factor Analysis, Patient Health Questionnaire

	F1. Patient Health Questionnaire	λ	SE	r^2	ε
1	Little interest or pleasure in doing things.	.700	.012	.491	.509
2	Feeling down, depressed, or hopeless.	.844	.008	.713	.287
3	Trouble falling or staying asleep, or sleeping too much.	.668	.012	.446	.554
4	Feeling tired or having little energy.	.706	.011	.498	.502
5	Poor appetite or overeating .	.741	.011	.550	.450
6	Feeling bad about yourself—or that you are a failure or have let yourself or your family down.	.806	.009	.650	.350
7	Trouble concentrating on things, such as reading the newspaper or watching television.	.673	.016	.454	.546
8	Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual.	.688	.013	.473	.527
9	Thoughts that you would be better off dead or of hurting yourself in some way.	.742	.016	.550	.450

	F1
Internal Consistency (McDonald's ω)	.869 [.860–.878]
Mean	15.91
Standard deviation	5.47
Range	9–36

Figure C24

Confirmatory Factor Analysis Diagram of the Patient Health Questionnaire

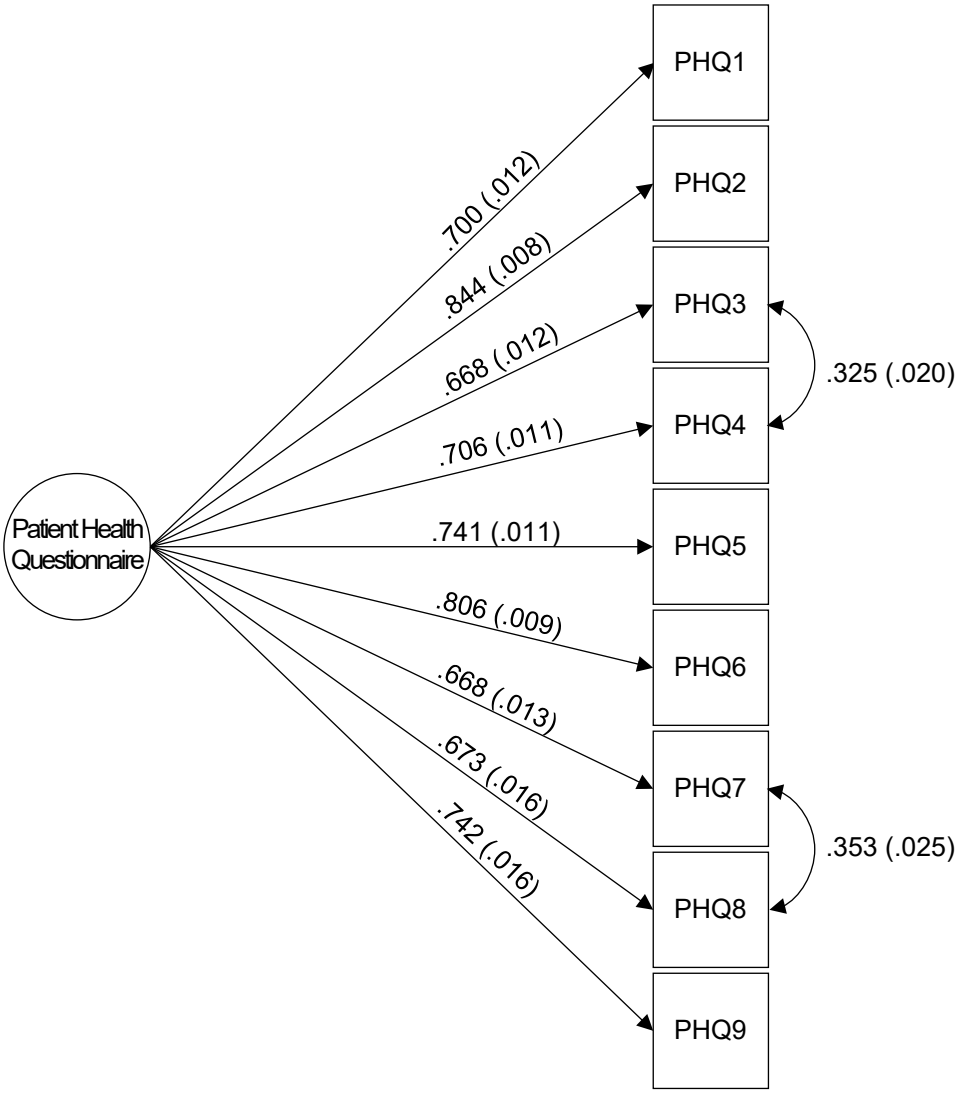

Table C49

Item Correlations and Descriptive Statistics of the Patient Health Questionnaire

	Items	1	2	3	4	5	6	7	8	9
1	Little interest or pleasure in doing things.	—	.545	.421	.434	.401	.432	.351	.384	.326
2	Feeling down, depressed, or hopeless.	.637	—	.457	.480	.454	.648	.398	.461	.472
3	Trouble falling or staying asleep, or sleeping too much.	.491	.517	—	.571	.492	.430	.327	.430	.28
4	Feeling tired or having little energy.	.508	.555	.642	—	.533	.444	.332	.442	.279
5	Poor appetite or overeating.	.484	.529	.563	.615	—	.487	.394	.437	.300
6	Feeling bad about yourself—or that you are a failure or have let yourself or your family down.	.518	.740	.489	.512	.570	—	.414	.452	.447
7	Trouble concentrating on things, such as reading the newspaper or watching television.	.469	.520	.439	.447	.527	.546	—	.521	.398
8	Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual.	.465	.537	.503	.527	.520	.527	.653	—	.363
9	Thoughts that you would be better off dead or of hurting yourself in some way.	.484	.667	.432	.43	.452	.649	.579	.519	—
	Mean	1.83	1.79	2.04	2.29	1.86	1.85	1.37	1.66	1.23
	Standard deviation	.863	.843	1.01	.930	.971	.952	.723	.857	.606
	Median	2	2	2	2	2	2	1	1	1
	Mode	2	1	1	2	1	1	1	1	1

Note. Polychoric correlations (r_{pc}) are presented in the lower half of the table and Pearson's product moment correlations (r_{xy}) are presented in the upper half of the table. Item response scale is as follows: 1 = *Not at All*; 2 = *Several*; 3 = *More than Half the Days*; 4 = *Nearly Every Day.*

APPENDIX D

Study Measures and Materials

Brief Multidimensional Measure of Religiousness/Spirituality

Reference: Fetzer Institute. (1999/2003). Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National Institute on Aging Working Group.

Daily Spiritual Experiences

The following questions deal with possible spiritual experiences. To what extent can you say you experience the following:

1. I feel God's presence.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

2. I find strength and comfort in my religion.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

3. I feel deep inner peace or harmony.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

4. I desire to be closer to or in union with God.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

5. I feel God's love for me, directly or through others.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

6. I am spiritually touched by the beauty of creation.

1	2	3	4	5	6
Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never

Values/Beliefs

7. I believe in a God who watches over me.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

8. I feel a deep sense of responsibility for reducing pain and suffering in the world.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

Forgiveness

9. I have forgiven myself for things that I have done wrong.

1	2	3	4
Always or almost	Often	Seldom	Never

10. I have forgiven those who hurt me.

1	2	3	4
Always or almost	Often	Seldom	Never

11. I know that God forgives me.

1	2	3	4
Always or almost	Often	Seldom	Never

Private Religious Practices

12. How often do you pray privately in places other than at church or synagogue?

1. More than once a day
2. Once a day
3. A few times a week
4. Once a week
5. A few times a month
6. Once a month
7. Less than once a month
8. Never

13. Within your religious or spiritual tradition, how often do you meditate?

    1. More than once a day
    2. Once a day
    3. A few times a week
    4. Once a week
    5. A few times a month
    6. Once a month
    7. Less than once a month
    8. Never

14. How often do you watch or listen to religious programs on TV or radio?

    1. More than once a day
    2. Once a day
    3. A few times a week
    4. Once a week
    5. A few times a month
    6. Once a month
    7. Less than once a month
    8. Never

15. How often do you read the Bible or other religious literature?

    1. More than once a day
    2. Once a day

3. A few times a week
4. Once a week
5. A few times a month
6. Once a month
7. Less than once a month
8. Never

16. How often are prayers or grace said before or after meals in your home?

1. More than once a day
2. Once a day
3. A few times a week
4. Once a week
5. A few times a month
6. Once a month
7. Less than once a month
8. Never

Religious and Spiritual Coping

Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?

17. I think about how my life is part of a larger spiritual force.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

18. I work together with God as partners.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

19. I look to God for strength, support, and guidance.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

20. I feel God is punishing me for my sins or lack of spirituality.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

21. I wonder whether God has abandoned me.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

22. I try to make sense of the situation and decide what to do without relying on God.

1	2	3	4
A great deal	Quite a bit	Somewhat	Not at all

23. To what extent is your religion involved in understanding or dealing with stressful situations in any way?

1	2	3	4
Very involved	Somewhat involved	Not very involved	Not involved at all

Religious Support

These questions are designed to find out how much help the people in your congregation would provide if you need it in the future.

24. If you were ill, how much would the people in your congregation help you out?

1	2	3	4
A great deal	Some	A little	None

25. If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you?

1	2	3	4
A great deal	Some	A little	None

Sometimes the contact we have with others is not always pleasant.

26. How often do the people in your congregation make too many demands on you?

1	2	3	4
Very Often	Fairly Often	Once in a While	Never

27. How often are the people in your congregation critical of you and the things you do?

1	2	3	4
Very Often	Fairly Often	Once in a While	Never

Religious/Spiritual History

28. Did you ever have a religious or spiritual experience that changed your life?

1	2
Yes	No

29. Have you ever had a significant gain in your faith?

1	2
Yes	No

30. Have you ever had a significant loss in your faith?

1	2
Yes	No

Commitment

31. I try hard to carry my religious beliefs over into all my other dealings in life.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

32. During the last year about how much was the average monthly contribution of your household to your congregation or to religious causes?

[Open-ended Contribution per year USD]

OR

[Open-ended Contribution per month USD]

33. In an average week, how many hours do you spend in activities on behalf of your church or activities that you do for religious or spiritual reasons?

[Open-ended hours per week]

Organizational Religiousness

34. How often do you go to religious services?

1	2	3	4	5	6
More than once a week	Every week or more often	Once or twice a month	Every month or so	Once or twice a year	Never

35. Besides religious services, how often do you take part in other activities at a place of worship?

1	2	3	4	5	6
More than once a week	Every week or more often	Once or twice a month	Every month or so	Once or twice a year	Never

Religious Preference

36. What is your current religious preference?

[Open-ended response]

Overall Self-Ranking

37. To what extent do you consider yourself a religious person?

1	2	3	4
Very religious	Moderately religious	Slightly religious	Not religious at all

38. To what extent do you consider yourself a spiritual person?

1	2	3	4
Very spiritual	Moderately spiritual	Slightly spiritual	Not spiritual at all

Meaning

39. The events in my life unfold according to a divine or greater plan.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

40. I have a sense of mission or calling in my own life.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

Spirituality Scale

Reference: Delaney, C. (2005). The Spirituality Scale: Development and psychometric testing of a holistic instrument to assess the human spiritual dimension. *Journal of Holistic Nursing*, *23*(2), 145–167.

Response Scale:

1. Strongly disagree
2. Disagree
3. Mostly disagree
4. Mostly agree
5. Agree
6. Strongly agree

Items:

1. I find meaning in my life experiences.
2. I have a sense of purpose.
3. I am happy about the person I have become.
4. I see the sacredness in everyday life.
5. I meditate to gain access to my inner spirit
6. I live in harmony with nature.
7. I believe there is a connection between all things that I cannot see but can sense.
8. My life is a process of becoming.
9. I believe in a Higher Power/Universal Intelligence.

10. I believe that all living creatures deserve respect.

11. The earth is sacred.

12. I value maintaining and nurturing my relationships with others.

13. I use silence to get in touch with myself.

14. I believe that nature should be respected.

15. I have a relationship with a Higher Power/Universal Intelligence.

16. My spirituality gives me inner strength.

17. I am able to receive love from others.

18. My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life.

19. I strive to correct the excesses in my own lifestyle patterns/practices.

20. I respect the diversity of people.

21. Prayer is an integral part of my spiritual nature.

22. At times, I feel at one with the universe.

23. I often take time to assess my life choices as a way of living my spirituality.

Index of Core Spiritual Experiences Scale

Reference: Kass, J. D., Friedman, R., Leserman, J., Zuttermeister, P. C., & Benson, H. (1991). Health outcomes and a new index of spiritual experience. *Journal for the Scientific Study of Religion*, *30*(2)*,* 203–211.

1. How strongly religious (or spiritually oriented) do you consider yourself to be?

1	2	3	4	5
Strong	Somewhat Strong	Not Very Strong	Not at All	Can't Answer

2. About how often do you spend time on religious or spiritual practices?

1	2	3	4
Several times per day-Several times per week	Once per week-Several times per month	Once per month -several times per year	Once a year or less

3. How often have you felt as though you were very close to a powerful spiritual force that seemed to lift you out of yourself?

1	2	3	4	5
Never	Once or Twice	Several Times	Often	Can't Answer

People have many different definitions of the "Higher Power" that we often call "GOD." Please use your definition of God when answering the following questions.

4. How close do you feel to God?

1	2	3	4	5
Extremely close	Somewhat close	Not very close	I don't believe in God	Can't Answer

5. Have you ever had an experience that has convinced you that God exists?

1	2	3
Yes	No	Can't Answer

6. Indicate whether you agree or disagree with this statement: "God dwells within you."

1	2	3	4
Definitely disagree	Tend to disagree	Tend to agree	Definitely

The following list describes spiritual experiences that some people have had. Please indicate if you have had any of these experiences and the extent to which each of them has affected your belief in God. Please fill in one of the following responses next to each statement The response choices are:

1. I had this experience and it convinced me of God's existence
2. Strengthened belief in God
3. Did not strengthen belief in God
4. I have never had this experience

A. An experience of God's energy or presence.

B. An experience of a great spiritual figure (e.g., Jesus, Mary, Elijah, Buddha)

C. An experience of angels of guiding spirits.

D. An experience of communication with someone who has died.

E. Meeting or listening to a spiritual teacher or master.

F. An overwhelming experience of love.

G. An experience of profound inner peace.

H. An experience of complete joy and ecstasy.

I. A miraculous (or not normally occurring) event.

J. A healing of your body or mind (or witnessed such a healing)

K. A feeling of unity with the earth and all living beings.

L. An experience with near death or life after death.

M. Other

Temperament and Character Inventory (TCI-ST): Self-Transcendence Subscale

Reference: Cloninger, C.R., Przybeck, T.R., Svrakic, D.M., & Wetzel, R.D. (1994). *The Temperament and Character Inventory (TCI-ST): A guide to its development and use*. Center for Psychobiology of Personality, Washington University.

Response Scale:

1. Definitely False
2. 2
3. 3
4. 4
5. Definitely True

Items:

1. I often feel a strong sense of unity with all the things around me.
2. Often I have unexpected flashes of insight or understanding while relaxing.
3. I sometimes feel so connected to nature that everything seems to be part of one living process.
4. I think that most things that are called miracles are just chance.
5. Sometimes I have felt like I was part of something with no limits or boundaries in time and space.
6. I sometimes feel a spiritual connection to other people that I cannot explain in words.
7. Sometimes I have felt my life was being directed by a spiritual force greater than any human being.

8. I have had moments of great joy in which I suddenly had a clear, deep feeling of oneness with all that exists.
9. I often become so fascinated with what I'm doing that I get lost in the moment–like I'm detached from time and place.
10. I often feel a strong spiritual or emotional connection with all the people around me.
11. I have made real personal sacrifices in order to make the world a better place – like trying to prevent war, poverty and injustice.
12. It often seems to other people like I am in another world because I am so completely unaware of things going on around me.
13. I often feel like I am a part of the spiritual force on which all life depends.
14. I have had personal experiences in which I felt in contact with a divine and wonderful spiritual power.
15. Often when I look at an ordinary thing, something wonderful happens – I get the feeling that I am seeing it fresh for the first time.
16. Religious experiences have helped me to understand the real purpose of my life.
17. I believe that all life depends on some spiritual order or power that cannot be completely explained.
18. I often feel so connected to the people around me that it is like there is no separation between us.
19. I am often called "absent-minded" because I get so wrapped up in what I am doing that I lose track of everything else.
20. I often do things to help protect animals and plants from extinction.
21. I have a vivid imagination.

22. I would gladly risk my own life to make the world a better place.
23. I think it is unwise to believe in things that cannot be explained scientifically.
24. Often I become so involved in what I am doing that I forget where I am for a while.
25. I have had experiences that made my role in life so clear to me that I felt very excited and happy.
26. Reports of mystical experiences are probably just wishful thinking.

Quest Scale

Reference: Batson, C. D. (1976). Religion as prosocial: Agent or double agent? *Journal for the Scientific Study of Religion*, *15*(1), 29–45.

Response Scale:

1. Strongly Disagree
2. Disagree
3. Neither Agree or Disagree
4. Agree
5. Strongly Agree

Items:

1. As I grow and change, I expect my religion also to grow and change.
2. I am constantly questioning my religious beliefs.
3. It might be said that I value my religious doubts and uncertainties.
4. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.
5. For me, doubting is an important part of what it means to be religious.
6. I do not expect my religious convictions to change in the next few years.
7. I find religious doubts upsetting.
8. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world.

Intrinsic Spirituality Scale

Reference: Hodge, D. R. (2003). The Intrinsic Spirituality Scale: A new six-item instrument for assessing the salience of spirituality as a motivational construct. *Journal of Social Service Research*, *30*(1), 41–61.

Items:

1. In terms of the questions I have about life, my spirituality answers

0	1	2	3	4	5	6	7	8	9	10
No questions										Absolutely all my questions

2. Growing spiritually is

0	1	2	3	4	5	6	7	8	9	10
Of no importance to me										More important than anything else in my life

3. When I am faced with an important decision, my spirituality is

0	1	2	3	4	5	6	7	8	9	10
Plays absolutely no role										Is always the overriding consideration

4. Spirituality

0	1	2	3	4	5	6	7	8	9	10
Not part of my life										The master motive of my life, directing every other aspect of my life

5. When I think of the things that help me to grow and mature as a person, my spirituality

0	1	2	3	4	5	6	7	8	9	10
Has no effect on my personal growth										Is absolutely the most important factor in my personal growth

6. My spiritual beliefs affect

0	1	2	3	4	5	6	7	8	9	10
No aspect of my life										Absolutely every aspect of my life

Rosenberg Self-Esteem Scale

Reference: Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Scale Stimulus: Below is a list of statements dealing with your general feelings about yourself.

Response Scale:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

Items:

1. I feel that I'm a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of. (Reverse scored)
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times. (Reverse scored)
10. At times I think I am no good at all. (Reverse scored)

Friendship Scale

Reference: Hawthorne, G. (2006). Measuring social isolation in older adults: Development and initial validation of the friendship scale. *Social Indicators Research*, *77*(3), 521–548.

Response Scale:

1. Almost Always
2. Most of the time
3. About half the time
4. Occasionally
5. Not at all

Items:

1. It has been easy to relate to others
2. I felt isolated from other people
3. I had someone to share my feelings with
4. I found it easy to get in touch with others when I needed to
5. When with other people, I felt separate from them
6. I felt alone and friendless

Experiences in Close Relationships Scale–Short Form

Reference: Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, *88*(2)*,* 187–204.

Scale Stimulus: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it.

Response Scale:

1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Neutral
5. Slightly Agree
6. Agree
7. Strongly Agree

Items:

1. It helps to turn to my romantic partner in times of need.
2. I need a lot of reassurance that I am loved by my partner.
3. I want to get close to my partner, but I keep pulling back.

4. I find that my partner(s) don't want to get as close as I would like.
5. I turn to my partner for many things, including comfort and reassurance.
6. My desire to be very close sometimes scares people away.
7. I try to avoid getting too close to my partner.
8. I do not often worry about being abandoned.
9. I usually discuss my problems and concerns with my partner.
10. I get frustrated if romantic partners are not available when I need them.
11. I am nervous when partners get too close to me.
12. I worry that romantic partners won't care about me as much as I care about them.

Generalized Anxiety Disorder Scale

Reference: Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097.

Response Scale:

1. Not at all
2. Several
3. More than half the days
4. Nearly every day

Items:

1. Feeling nervous, anxious or on edge
2. Not being able to stop or control worrying
3. Worrying too much about different things
4. Trouble relaxing
5. Being so restless that it is hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

Patient Health Questionnaire

Reference: Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe , B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(19), 606–613.

Scale Stimulus:

Over the last two weeks, how often have you been bothered by the following problems?

Scale Response:

1. Not at all Difficult
2. Somewhat Difficult
3. Very Difficult
4. Extremely Difficult

Items:

1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down
7. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual

8. Trouble concentrating on things, such as reading the newspaper or watching television
9. Thoughts that you would be better off dead or of hurting yourself in some way

APPENDIX E

Study IRB Documentation

Institutional Review Board
for Human Subjects

Brigham Young University
A-285 ASB Provo, Utah 84602
(801) 422-3841 / Fax: (801) 422-0620

June 15, 2016

Justin Zamora
223 W. Bulldog Blvd. #506
Provo, Utah 84604

Re: A Psychometric Evaluation of the Attachment to God Inventory

Dear Justin Zamora

This is to inform you that Brigham Young University's IRB has approved the above research study.

The approval period is from 6-15-2016 to 6-14-2017. Your study number is E16244. Please be sure to reference this number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements.

All protocol amendments and changes to approved research must be submitted to the IRB and not be implemented until approved by the IRB.

A few months before this date we will send out a continuing review form. There will only be two reminders. Please fill this form out in a timely manner to ensure that there is not a lapse in your approval.

If you have any questions, please do not hesitate to call me.

Sincerely,

Robert Ridge, PhD., Chair