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Incremental Validity of Spiritual Resources in the Job Demands-Resources Model

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This study examines the unique effects of spiritual resources in the job demands-resources model beyond those of the 5-factor model of personality. Hypotheses were tested on a sample of 617 religious workers using structural equation modeling techniques. Results showed that various dimensions of personality were significantly related to spiritual resources, work engagement, exhaustion, and the other elements of the job demands-resources model (job demands, job resources, emotional ill-health, and turnover intention). However, spiritual resources were found to demonstrate a significant relationship with both work engagement and exhaustion in the presence of personality dimensions and work characteristics. The contribution of spiritual resources in predicting work engagement was similar to that of personality, although approximately one third of the magnitude of personality in predicting exhaustion. This cross-sectional analysis suggests that spiritual resources are distinctly, albeit modestly, related to well-being at work for religious workers.

Keywords: personality, spiritual resources, work engagement, exhaustion, job demands-resources model

This research tests the unique effects of spiritual resources in the job demands-resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) beyond those of the five-factor model (FFM) of personality (McCrae & Costa, 1995). Spiritual resources are defined as a category of personal resources that comprise beliefs, practices, and experiences related to the sacred: they enhance a person’s resilience and perceived ability to control and impact their environment successfully (Bickerton, Miner, Dowson, & Griffin, 2014). Spiritual resources represent a higher-order construct defined in this study as comprising a divine calling to the work, a collaborative religious coping style, and the two dimensions of a secure attachment to God. A sense of divine calling in this study concerns a summons to a particular work activity originating from a transcendent sacred source; collaborative religious coping is a style of responding to stress by drawing on both human and religious resources; secure attachment to God is a perceived relationship marked by low anxiety and little avoidance of intimacy with God (Beck & McDonald, 2004; Par-gament, 1997; Steger, Pickering, Shin, & Dik, 2010).

The JD-R model is a comprehensive theoretical framework of well-being at work proposing that job demands evoke a health impairment process that leads to exhaustion and negative health and occupational outcomes, while job and personal resources promote work engagement and positive organizational outcomes via a motivational process (for a review, see Hakanen & Roodt, 2010). Included in the present study were three job demands (role ambiguity, interpersonal conflicts, and work overload) and three job resources (autonomy, supervisory support, and development opportunities) that have been previously associated with the dual processes proposed by the JD-R model among clergy (Buys & Rothmann, 2009, 2010; Kaldor & Bullpitt, 2001).

We adopt a theistic approach to the operationalization of spiritual resources, specifically framing the measurement of resources from a Judeo-Christian perspective. While others (e.g., Helminiak, 2008) have argued that this can confound the divine with the spiritual, the operationalization of spiritual resources in this study is appropriate given that the sample consisted exclusively of Christian religious workers within a Western cultural context. Spiritual resources of this nature and conceptualized as a subgroup of state-like personal resources have been associated with both the motivational and health impairment processes of the JD-R model among clergy and other religious workers (Bickerton et al., 2014).

In that study, spiritual resources had a direct and positive relationship with work engagement and a direct and negative relationship with exhaustion. Spiritual resources also related indirectly to turnover intention and emotional ill-health via engagement and exhaustion, respectively (Figure 1). However, personality was not included in the analyses and thus did not address the criticism that religious and spiritual constructs might merely be there-labeling or “religification” of already established personality constructs (Van Wicklin, 1990).
Establishing the discriminant validity of spiritual resources in relation to personality dimensions is particularly important in the study of occupational stress given that various dimensions of personality have been associated with both exhaustion and work engagement among clergy (e.g., Joseph, Luyten, Corveleyn, & DeWitte, 2011; Miner, 2007). Furthermore, a failure to account for the effects of personality may inflate observed relationships with spiritual resources. Therefore, the present study has two aims: (a) test the factorial independence of spiritual resources from personality dimensions, and (b) assess the incremental validity of spiritual resources in relation to the dual processes of the JD-R model over and above personality constructs.

**Spiritual Resources and Personality**

Rodgerson and Piedmont (1998) assert that in order for spiritual constructs to be recognized and accepted as legitimate individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables. The FFM of personality has been developed and confirmed over the past five decades as a reliable organization of individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables. The FFM of personality has been developed and confirmed over the past five decades as a reliable organization of individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables. The FFM of personality has been developed and confirmed over the past five decades as a reliable organization of individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables. The FFM of personality has been developed and confirmed over the past five decades as a reliable organization of individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables. The FFM of personality has been developed and confirmed over the past five decades as a reliable organization of individual difference dimensions, two conditions must be satisfied: (a) that the spiritual constructs are distinct from other established psychological variables; and (b) that the spiritual constructs are able to explain unique variance observed in psychological outcomes beyond the effects of such established psychological variables.
scientiousness, and agreeableness (Joseph et al., 2011; Miner, 2007; Rodgerson & Piedmont, 1998).

Work engagement, characterized by vigor (high levels of energy), dedication (strong identification with work), and absorption (happily engrossed and fully concentrated), is considered the positive antipode to burnout (Schaufeli, Salanova, González-Romá, & Bakker, 2002). To date, four studies have identified relationships between engagement and all FFM factors of personality except openness to experience (Joseph et al., 2011; Kim et al., 2009; Langelaan, Bakker, van Doornen, & Schaufeli, 2006; Wefald, Reichard, & Serrano, 2011).

The role of spiritual resources has received less attention, but one recent study (Bickerton et al., 2014) identified spiritual resources as having significant relationships with both the motivational and health impairment processes of the JD-R model. Theoretically, spiritual resources increase meaningfulness of work tasks and perceived control over the environment. Such protective processes associated with spirituality in the workplace are thought to function in addition to personality traits (see Zellars et al., 2010). Indeed, there is some empirical support for such a proposal, with evidence that religious coping and a perceived connection with God have incremental significance in predicting burnout levels among clergy when controlling for personality (Golden, Piedmont, Churches, & Rutledge, 2008). However, given that no data was available, it is possible that some degree of self-selection bias cannot be ruled out. Just over half of the respondents (54.1%) were ministers or chaplains, 14.1% were cross-cultural workers, 5.7% youth workers, and 26.1% others (such as denominational leaders and seminary professors). Most (77.1%) worked full-time, with an average tenure of 7.0 years ($SD = 7.3$). The mean age of participants was 49.8 years ($SD = 13.3$), and 63.4% were men.

**Measures**

All items were scored on a 7-point scale (1 = strongly disagree or never, 7 = strongly agree or always) unless stated otherwise. Cronbach’s alpha coefficients are reported in results.

**Spiritual resources.** Secure attachment to God was measured by five items from the Avoidance of Intimacy with God subscale (e.g., “I prefer not to depend too much on God”) and four items from the Anxiety about Abandonment by God subscale (e.g., “I crave reassurance that God loves me”) of the Attachment to God Inventory (Beck & McDonald, 2004). These items were selected from the original 14-item subscales on the basis of their high factor loadings as reported in the original study and for domain coverage. Items were reverse scored to provide a measure of Secure Intimacy with God and Security from Abandonment by God. Collaborative Religious Coping was measured by the 6-item Collaborative factor of the Religious Problem Solving Scale—Short form (Pargament, 1997). Participants responded to these items (e.g., “When it comes to deciding how to solve a problem, God and I work together as partners”) with reference to stressful situations associated with their ministry work. Calling: The 4-item Presence of a Transcendent Summons subscale of the Calling and Vocation Questionnaire (Dik, Eldridge, Steger, & Duffy, 2012) was used (e.g., “I believe that I have been called to my current line of work”).

**Personality measure.** The personality dimensions of Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness were measured by the 60-item NEO Five Factor Inventory (NEO-FFI) Form S (Costa & McCrae, 1992). Each dimension is represented by 12 items. The set of NEO instruments is the most widely used and extensively validated approach to measuring the five factor model of personality (Boyle, 2008; Costa & McCrae, 2011).

**Job demands.** Role Ambiguity was assessed by three items from Ivancevich and Matteson’s (1980) role ambiguity subscale (e.g., “My job duties and work objectives are unclear to me”). Interpersonal Conflict was measured with three items (e.g., “I experience personal friction with others at work”) from Pearson, Ensley and Amason’s (2002) refinement of the Intragroup Conflict Scale. Work overload was measured by two items adapted from Zohar’s (1997) role overload subscale. An additional item was added from Peterson, Smith, Akande, and Ayestaran (1995) (e.g., “The amount of work I have to do interferes with the quality I want to maintain”) to assess the impact of workload on self-expectations of work quality, a relevant aspect for religious workers (Beebe, 2007).

**Job resources.** Autonomy (the extent a person has discretion over work-related decisions) was assessed with three items adapted from Karasek’s (1979) Job Demands and Decision Latitude Survey, with an additional item (“I have discretion over what I am responsible for”) from Gregerson and Black’s (1992) Job Role Discretion survey concerning independence in work role responsibility. Responsibility discretion has been shown to be an important facet of autonomy for religious workers (Miner, Dowson, & Sterling, 2010). Supervisor Support was measured by two items adapted from Greenhaus, Parasuraman and Wormley’s (1990) Supportive Supervision scale, supplemented by an additional item from Oldham and Cummings’ (1996) Supportive Supervision subscale (e.g., “My supervisor/mentor helps me solve work-related problems”). This latter item was considered important given that professional isolation is a common experience of clergy and other religious workers (Fallon & Rice, 2009). Development Opportunities was assessed by two items adapted for personal and skill development in a religious work context from Ivancevich and Matteson’s (1980) Career Development subscale, and an addi-
tional item from Campion (1988) (e.g., “My ministry allows opportunities for learning and growth in competence and proficiency.”)

Work engagement and exhaustion. Work Engagement was measured by the 9-item version of the Utrecht Work Engagement Scale (UWES) that has been validated in several countries and among a variety of occupational cohorts (Schaufeli & Bakker, 2010; Schaufeli, Bakker, & Salanova, 2006). The UWES reflects three underlying dimensions, each measured with three items: Vigor (e.g., “At my job, I feel strong and vigorous”); Dedication (e.g., “My job inspires me”); and Absorption (e.g., “I feel happy when I am working intensely”). Exhaustion was assessed by the 5-item Exhaustion subscale (e.g., ‘I feel emotionally drained from my work’) from the Maslach Burnout Inventory-General Survey, which has demonstrated acceptable internal consistencies and factorial validity among diverse samples, and relative stability over time intervals ranging from 6 months to 1 year (Richardsen & Martinussen, 2005; Schaufeli, Leiter, Maslach, & Jackson, 1996).

Outcome measures. Emotional Ill-Health was operationalized using four items identified as representing an anxiety and depression factor from the General Health Questionnaire (Gao, Thumboo, Fones, Li, & Cheung, 2004; Graetz, 1991). These items, such as “Been feeling unhappy or depressed,” were answered on a 4-point scale (1 = never, 4 = always). Turnover Intention was measured by four items from Bozeman and Perrewé (2001) concerning withdrawal cognitions (e.g., “I will probably look for a new job in the near future”).

Data Analysis

Data were analyzed by means of confirmatory factor analysis (CFA) and structural equation modeling (SEM) using the MPlus 6 program (Muthén & Muthén, 1998–2010). Mardia’s (1970) coefficient of multivariate skewness and kurtosis was calculated in preliminary analyses and indicated that the data was not normally distributed. Therefore, all analyses employed the Maximum Likelihood Mean adjusted (MLM) estimator that utilizes a scaling correction factor (SCF) to calculate a corrected chi-square test statistic (Satorra-Bentler-Scaled chi-square). Goodness-of-fit for both the CFA and SEM models was assessed using the Satorra-Bentler-scaled chi-square goodness of fit statistic (S-Bχ²), the Root Mean Square Error of Approximation (RMSEA), the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI). Values of RMSEA less than .05 are generally taken to represent good fit (Hu & Bentler, 1992), and CFI and TLI values greater than .90 indicate an acceptable model fit, especially when complex models are being tested (Marsh, Hau, & Grayson, 2005). Nested models were compared by means of the Satorra-Bentler-scaled chi-square difference statistic (ΔS-Bχ²; Satorra & Bentler, 2001).

Scale items were treated as observed indicators of their respective first-order latent factors, with the exception of the personality factors (see below). First-order CFAs were used to assess the extent to which the observed indicators (items) measured the underlying latent factors of interest. A higher-order measurement model was constructed as guided by the JD-R model extended to include personal resources (see Schaufeli & Bakker, 2004; Xanthopoulou et al., 2007). Spiritual Resources were modeled as a higher-order factor comprising four first-order factors (Secure Intimacy with God, Security from Abandonment by God, Collaborative Religious Coping, and Calling). Job Demands was modeled as a higher-order factor comprising three first-order factors (Role Ambiguity, Interpersonal Conflict, and Work Overload). Job Resources was modeled as a higher-order factor comprising three first-order factors (Vigor, Dedication, and Absorption). Exhaustion, Emotional Ill-Health, and Turnover Intention were also modeled as first-order factors. The 16 first-order factors were indicated by their respective scale items (total of 60 items).

Prior CFAs of the NEO-FFI conducted at the item level have not supported their a priori structure (e.g., Schmitz, Hartkamp, Baldini, Rollnik, & Tress, 2001), causing some researchers to question the applicability of CFAs to the study of personality structure (McCrae, Zonderman, Costa, Bond, & Paunonen, 1996). Therefore, all analyses followed the practice of previous researchers of computing average scores for each of the personality dimensions (Neuroticism, Extraversions, Openness to experience, Agreeableness, and Conscientiousness) and including these in the measurement and structural models as manifest variables (e.g., Bakker et al., 2010).

Testing Hypothesis 1: Spiritual Resources Distinct From Personality Dimensions

Hypothesis 1 was tested in three ways:

1. A comparison was made between the within construct variance explained by each first-order spiritual resource factor (average variance extracted [AVE]) and the variance explained between each spiritual resource construct and the five personality dimensions. If the AVE for each first-order spiritual resource factor is larger than the squared interconstruct correlation (SIC) with each personality variable, discriminant validity is supported (Dillon & Goldstein, 1984).

2. The correlations between the higher-order Spiritual Resources factor and the five personality dimensions were examined for evidence of nonredundancy.

3. The fit of the hypothesized measurement model was compared with five alternative measurement models (Alt.1–5). Each alternative model represented the four spiritual resource first-order factors and one personality dimension loading on a single higher-order construct. For example, Alt.1 modeled the four spiritual resource factors and neuroticism on the one higher-order factor. Alternative Models 2–5 replaced Neuroticism with Extraversions, Openness, Agreeableness, and Conscientiousness in turn.

Hypothesis 1 is supported if the hypothesized measurement model provided a superior fit relative to the five alternative models.

Testing Hypothesis 2: Incremental Validity of Spiritual Resources in the JD-R Model

Hypothesis 2 was tested by evaluating the relative contribution of Spiritual Resources to the dual processes of the JD-R model in the presence of all personality dimensions. This was accomplished by comparing a series of nested structural models. First, the JD-R model extended to include spiritual resources was fitted to the data with each of the NEO-FFI manifest variables also loading onto Job Demands,
Job Resources, Spiritual Resources, Work Engagement, Exhaustion, Emotional Ill-Health, and Turnover Intention (M1). Model fit indices and the significance of structural paths of M1 were then compared with those of an alternative model (M2) in which the relationships between Spiritual Resources and Work Engagement, and Spiritual Resources and Exhaustion were constrained to zero. Hypothesis 2 would be supported if parameter estimates for structural paths in M1 were statistically significant, and M2 represented a significantly worse fit to the data than M1. The incremental validity of Spiritual Resources with respect to Work Engagement and Exhaustion was assessed by comparing the difference in $R^2$ values for Work Engagement and Exhaustion between M1 and M2.

The incremental validity of personality dimensions and work conditions was also assessed by comparing $R^2$ values for Work Engagement and Exhaustion in M1 with $R^2$ values in two alternative models (i.e., Model 3 and Model 4). Model 3 (M3) was M1 with relationships between the NEO-FFI variables and Work Engagement and Exhaustion constrained to zero. Model 4 (M4) was M1 with relationships between Job Demands and Exhaustion, and between Job Resources and Work Engagement constrained to zero. If the model fit of M3 and/or M4 is significantly worse than M1, it can be concluded that the relationships constrained to zero are, in fact, significant within the JD-R model.

### Assessment of Common Method Effects

Given the cross-sectional, self-report design of the study, a variety of common method effects were possible confounds. An assessment of common method effects was undertaken by estimating the research model (M1) with an additional Common Method first-order factor on which all items were allowed to load in addition to their intended constructs (Podsakoff, MacKenzie, & Podsakoff, 2012).

### Results

#### Descriptive Statistics

Preliminary analyses indicated that work role (e.g., minister, chaplain, cross-cultural worker, etc.) had very little substantive influence on the study variables of interest. Thus, in the analyses all participants were included as one sample of religious workers. Factor means, $SD$s, and correlations are presented in Table 1, with Cronbach’s alpha for each scale. Relationships between key variables in the extended JD-R model were all in the expected direction. Correlations of low to moderate strength were found between first-order spiritual resource factors and personality dimensions, with the exception of the strong relationship between Security from Abandonment by God and Neuroticism ($r = -.65$).

#### Measurement Models

The first-order latent factors and five manifest variables representing the FFM were assessed by CFA to determine their construct validity. This first-order model yielded an acceptable fit to the data ($S-BY^2 = 3090.34; df = 1809; SCF = 1.12; CFI = .93; TLI = .92; RMSEA = .03$). Average factor loadings for each latent factor ($g_{average range} = .60–.91$) suggest good construct validity. Supporting discriminant validity of constructs, the AVE estimates of the spiritual resource first-order factors ($AVE_{range} = .49–.60$) were all greater than the corresponding squared interconstruct correlations between personality dimensions and spiritual resource first-order factor estimates ($SIC_{range} = .00–.42$).

The hypothesized higher-order measurement model achieved a good fit in terms of the RMSEA, and the comparative fit statistics (CFI and TLI) met the threshold value of .90 (Table 2). All first-order factor loadings were positive, significant with $p < .001$, and greater than .50 with the exception of Security from Abandonment with God (.31) and Supervisory Support (.38). In this model, the higher-order Spiritual Resources factor was positively correlated with Agreeableness ($r = .39, p < .001$), Extraversion ($r = .30, p < .001$), and Conscientiousness ($r = .29, p < .001$), and negatively with Neuroticism ($r = -.31, p < .001$). Spiritual Resources was not significantly related to Openness to experience ($r = .00, ns$). The magnitudes of these estimated correlations suggest that although spiritual resources and personality are related, they are nonredundant constructs.

As can be seen from the model comparisons presented in Table 2, the hypothesized measurement model that represents Spiritual Resources as distinct from personality dimensions demonstrated a superior fit to the data relative to all alternative higher-order measurement models.

Overall, these results support Hypothesis 1 that spiritual resources are related to, yet distinct from, individual personality dimensions.

#### Structural Models

All structural model solutions converged properly, and all parameters in each of the models were plausible. Table 3 displays model fit statistics for the structural models estimated in the analyses.

#### Preliminary Analysis Validating JD-R Model Extended to Include Spiritual Resources

Prior to the fitting of the structural models used to Test Hypothesis 2, the JD-R model extended to include spiritual resources but not the personality variables (M0) was fitted to the data and achieved an adequate fit, thereby supporting the model depicted in Figure 1. In this model, Spiritual Resources were significantly related to Work Engagement ($β = .33, p < .001$) and indirectly related to Turnover Intention via Work Engagement ($β_{indirect} = -.13, p < .001$). Spiritual Resources were negatively related to Exhaustion ($β = -.15, p < .001$) and indirectly related to Emotional Ill-Health and Turnover Intention via Exhaustion ($β_{indirect} = -.10, p < .001$, and $β_{indirect} = -.02, p = .031$, respectively).

#### Incremental Validity of Spiritual Resources in the JD-R Model

The hypothesized expanded JD-R model was fitted to the data with the inclusion of all personality dimensions (M1). As shown in Table 3, M1 achieved an acceptable overall fit to the data explaining 63.9% of the variance in Work Engagement, and 49.8% in Exhaustion. Model 2 (M2), representing the hypothesized model with relationships between Spiritual Resources and both Work
Table 1
Means, SDs, Intercorrelations, and Reliability Coefficients of Constructs

| Variable                              | M    | SD   | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Neuroticism                           | 3.21 | .94  | .86  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Extraversion                          | 4.75 | .81  | .45  | .83  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Openness                              | 4.55 | .74  | .08  | .73  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Agreeableness                         | 5.26 | .53  | .27  | .76  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Conscientiousness                     | 5.24 | .73  | .07  | .39  | .82  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Role ambiguity                        | 3.03 | 1.23 | .26  | .01  | .33  | .39  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Interpersonal conflict                | 3.15 | 1.28 | .37  | .11  | .05  | .37  | .24  | .66  | .79  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Work overload                         | 3.94 | 1.45 | .25  | .07  | .04  | .20  | .24  | .40  | .44  | .86  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Autonomy                              | 5.99 | .74  | .26  | .01  | .15  | .37  | .33  | .20  | .80  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Supervisory support                   | 4.81 | 1.68 | .01  | .07  | .01  | .18  | .21  | .06  | .93  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Development opportunities             | 5.85 | 0.86 | .23  | .03  | .18  | .36  | .32  | .10  | .64  | .39  | .90  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Secure intimacy with God              | 4.94 | 0.93 | .16  | .06  | .30  | .25  | .20  | .18  | .09  | .21  | .11  | .23  | .73  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Security from abandonment by God      | 5.51 | 1.08 | .65  | .14  | .25  | .32  | .24  | .17  | .22  | .04  | .16  | .18  | .78  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Collaborative religious coping        | 4.77 | 0.88 | .24  | .26  | .03  | .30  | .21  | .26  | .19  | .10  | .07  | .22  | .73  | .19  | .88  |      |      |      |      |      |      |      |      |      |      |      |      |
| Calling                               | 6.38 | 0.72 | .20  | .17  | .00  | .24  | .16  | .20  | .15  | .02  | .33  | .14  | .36  | .40  | .16  | .35  | .85  |      |      |      |      |      |      |      |      |
| Exhaustion                            | 3.70 | 0.96 | .56  | .30  | .04  | .30  | .49  | .49  | .33  | .33  | .16  | .46  | .29  | .82  |      |      |      |      |      |      |      |      |      |      |      |      |
| Vigor                                 | 4.83 | 0.92 | .48  | .58  | .10  | .21  | .35  | .45  | .30  | .21  | .45  | .18  | .47  | .27  | .34  | .36  | .33  | .60  | .86  |      |      |      |      |      |
| Dedication                            | 5.39 | 0.83 | .44  | .53  | .11  | .30  | .32  | .39  | .17  | .47  | .21  | .63  | .35  | .32  | .43  | .45  | .54  | .87  | .80  |      |      |      |      |      |
| Absorption                            | 4.96 | 0.77 | .25  | .43  | .12  | .23  | .26  | .24  | .12  | .06  | .32  | .15  | .37  | .22  | .13  | .33  | .31  | .22  | .71  | .78  | .68  |      |      |      |
| Emotional ill-health                  | 1.89 | 0.61 | .59  | .27  | .03  | .23  | .41  | .42  | .42  | .26  | .06  | .17  | .18  | .41  | .27  | .13  | .66  | .42  | .38  | .17  | .82  |      |      |      |
| Turnover intention                    | 2.23 | 1.40 | .21  | .14  | .01  | .15  | .08  | .36  | .33  | .02  | .39  | .44  | .24  | .16  | .20  | .43  | .30  | .32  | .46  | .33  | .25  | .86  |      |      |

Note. *N* = 617. Cronbach's alpha reliability coefficients are in italics on the diagonal. Range of scores for all variables is 1–7, with the exception of emotional ill-health, which has a range of 1–4. Correlations with absolute values between 0.08 and 0.10 are statistically significant at *p* < .05; between 0.11 and 0.14 are statistically significant at *p* < .01; and ≥ 0.15 are statistically significant at *p* < .001.
Engagement and Exhaustion constrained to zero, was then examined. M2 yielded a significantly inferior fit to the data relative to M1. M2 explained 60.6% of the variance in Work Engagement and 48.5% in Exhaustion, a reduction of 3.3% and 1.3% in comparison with M1 (Table 4). In support of Hypothesis 2, these comparisons indicate that M1, which includes relationships between Spiritual Resources and both Work Engagement and Exhaustion, is preferred over M2. Further, Spiritual Resources account for a unique proportion of variance explaining both Work Engagement and Exhaustion over and above personality and work characteristics, is preferred over M2. Further, Spiritual Resources account for a unique proportion of variance explaining both Work Engagement and Exhaustion over and above personality and work characteristics.

When the relationships between the five personality variables and both Work Engagement and Exhaustion were constrained to zero (M3), the model fit was found to be significantly inferior to M1 with an $R^2$ reduction of .025 for Work Engagement and .036 for exhaustion in comparison with M1. The final model fitted (M4) represented the hypothesized expanded JD-R model with relationships between Job Resources and Work Engagement, and between Job Demands and Exhaustion, both constrained to zero. M4 also yielded an inferior fit to the data in comparison with M1, with the $R^2$ for Work Engagement and Exhaustion reduced by .127 and .138, respectively, in comparison with M1.

Supporting Hypothesis 2, relationships between Spiritual Resources and the dual processes of the JD-R model retained significance in the presence of personality dimensions (Table 5). Specifically, Spiritual Resources was directly related to Work Engagement and indirectly to (low) Turnover Intention via Work Engagement, and directly related to (low) Exhaustion and indirectly to (low) Emotional Ill-Health via Exhaustion. However, Spiritual Resources was not indirectly related to (low) Turnover Intention via Exhaustion because of an insignificant relationship between Exhaustion and Turnover Intention ($\beta = -.08, ns$). Controlling for a Common Methods factor did not alter the significance or magnitude of these parameter estimates.

**Discussion**

This research tests the incremental validity of spiritual resources in relation to the dual processes of the JD-R model and above the effects of the five factor model of personality. Results indicate that spiritual resources represent a construct that is distinct from, yet related to, personality dimensions. Further, spiritual resources were significantly associated with turnover intention and emotional ill-health in ways that are consistent with the JD-R model. Spiritual resources were significantly related to the dual processes of the JD-R model beyond the effects of personality. These relationships remained stable when common method bias was taken into account. This is the first study to assess the unique contributions of spiritual resources to well-being at work over and above both personality and work characteristics, and to provide evidence of the value of spiritual resources in explaining variance in both work engagement and exhaustion among religious workers.

**Spiritual Resources and the FFM of Personality**

The finding that spiritual resources provide unique personal information that is related to the well-being of religious workers supports previous literature suggesting spiritual variables are not necessarily the “religification” of already established individual

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**Table 2**

Results of Higher-Order Confirmatory Factor Analyses (Maximum Likelihood Mean Adjusted Estimator)

<table>
<thead>
<tr>
<th>Model description</th>
<th>$S-B \chi^2$</th>
<th>df</th>
<th>SCF</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>Model comparison</th>
<th>$\Delta S-B \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized Measurement Model (HMM)</td>
<td>3,748.31</td>
<td>1,940</td>
<td>1.11</td>
<td>.90</td>
<td>.90</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alt. Measurement Model 1: SRs with Neuroticism (Alt.1)</td>
<td>4,315.13</td>
<td>1,951</td>
<td>1.11</td>
<td>.87</td>
<td>.86</td>
<td>.04</td>
<td>Alt.1 vs. HMM</td>
<td>566.82***</td>
<td>11</td>
</tr>
<tr>
<td>Alt. Measurement Model 2: SRs with Extraversion (Alt.2)</td>
<td>3,919.89</td>
<td>1,951</td>
<td>1.12</td>
<td>.89</td>
<td>.89</td>
<td>.04</td>
<td>Alt.2 vs. HMM</td>
<td>171.58***</td>
<td>11</td>
</tr>
<tr>
<td>Alt. Measurement Model 3: SRs with Openness (Alt.3)</td>
<td>3,903.59</td>
<td>1,951</td>
<td>1.11</td>
<td>.90</td>
<td>.89</td>
<td>.04</td>
<td>Alt.3 vs. HMM</td>
<td>155.28***</td>
<td>11</td>
</tr>
<tr>
<td>Alt. Measurement Model 4: SRs with Agreeableness (Alt.4)</td>
<td>3,868.42</td>
<td>1,951</td>
<td>1.11</td>
<td>.90</td>
<td>.89</td>
<td>.04</td>
<td>Alt.4 vs. HMM</td>
<td>120.11***</td>
<td>11</td>
</tr>
<tr>
<td>Alt. Measurement Model 5: SRs with Conscientiousness (Alt.5)</td>
<td>3,884.13</td>
<td>1,951</td>
<td>1.11</td>
<td>.90</td>
<td>.89</td>
<td>.04</td>
<td>Alt.5 vs. HMM</td>
<td>135.82***</td>
<td>11</td>
</tr>
</tbody>
</table>

*Note. N = 617. $S-B \chi^2$ = Satorra-Bentler-scaled chi-square goodness of fit statistic; SCF = Scaling Correction Factor; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Means Square Error of Approximation; SRs = four first-order spiritual resource factors.

$*** p < .001$.

**Table 3**

Results of Structural Equation Modeling (Maximum Likelihood Mean Adjusted Estimator)

<table>
<thead>
<tr>
<th>Model (M) description</th>
<th>$S-B \chi^2$</th>
<th>df</th>
<th>SCF</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>Model comparison</th>
<th>$\Delta S-B \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0 Expanded JD-R without FFM</td>
<td>3,231.76</td>
<td>1,685</td>
<td>1.12</td>
<td>.91</td>
<td>.91</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1 Hypothesized Expanded JD-R</td>
<td>3,862.18</td>
<td>1,953</td>
<td>1.12</td>
<td>.90</td>
<td>.89</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2 Expanded JD-R with SR→WE@0 and SR→EX@0</td>
<td>3,898.78</td>
<td>1,955</td>
<td>1.12</td>
<td>.89</td>
<td>.89</td>
<td>.04</td>
<td>M2 vs. M1</td>
<td>36.60***</td>
<td>2</td>
</tr>
<tr>
<td>M3 Expanded JD-R with FFM→WE@0 and FFM→EX@0</td>
<td>4,006.11</td>
<td>1,963</td>
<td>1.12</td>
<td>.89</td>
<td>.88</td>
<td>.04</td>
<td>M3 vs. M1</td>
<td>143.93***</td>
<td>10</td>
</tr>
<tr>
<td>M4 Expanded JD-R with JR→WE@0 and JD→EX@0</td>
<td>4,022.10</td>
<td>1,955</td>
<td>1.12</td>
<td>.89</td>
<td>.88</td>
<td>.04</td>
<td>M4 vs. M1</td>
<td>159.92***</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note. N = 617. $S-B \chi^2$ = Satorra-Bentler-scaled chi-square goodness of fit statistic; SCF = Scaling Correction Factor; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Means Square Error of Approximation; FFM = manifest variables of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness; SR = Spiritual Resources latent variable; WE = Work Engagement latent variable; EX = Exhaustion latent variable; JR = Job Resources latent variable; JD = Job Demands latent variable.

$*** p < .001$. 

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difference constructs (Golden et al., 2004; Piedmont & Wilkins, 2013; Rodgerson & Piedmont, 1998).

Spiritual resources were positively related to agreeableness, conscientiousness, and extraversion, and negatively related to neuroticism. The specific pattern of significant relationships is consistent with MacDonald’s (2000) Existential Well-Being dimension of spirituality representing aspects of spirituality expressed through a sense of meaning and purpose, and a perception of self as competent and able to cope with the difficulties of life and the limitations of human existence. Thus, using the FFM as a reference point (Piedmont, 1999, 2005), spiritual resources as operationalized in this study among Western religious workers appear to be tapping aspects of spirituality that enhance resilience by increasing meaningfulness and the perceived ability to control the environment.

A strong negative correlation was observed between Neuroticism and Security from Abandonment by God. Given that this spiritual resource measures anxiety about abandonment by God (Beck & McDonald, 2004), the considerable overlap with neuroticism is both understandable and consistent with other findings concerning anxiety about abandonment in adult human attachment (see Noftele & Shaver, 2006; Shaver & Brennan, 1992).

**Spiritual Resources and the JD-R Model**

To date, research among clergy and other religious workers has tended to neglect the very aspect of these employees that makes their work distinct—their spiritual lives (Golden et al., 2004; Hall, Edwards, & Hall, 2006). Religious workers have largely been treated as homogenous with other human service providers in relation to the causes, contexts, outcomes, and interventions for occupational stress (Parker, Martin, Colmar, & Debus, 2008). Yet it is spirituality that makes this occupational cohort unique in terms of the high personal faith commitments of the workers themselves, their vocational education and job roles, and occupational goals to be accomplished (Doolittle, 2010). This study has identified and demonstrated the incremental significance of an additional set of unique personal resources for Western religious workers—spiritual resources—that contribute to positive well-being at work and provide protection against occupational distress as represented by the JD-R model.

With respect to the motivational process of the JD-R model, spiritual resources were positively related to work engagement, and negatively related to turnover intention via work engagement. The proportion of unique variance attributed to spiritual resources in explaining work engagement was comparable to that of personality. However, job resources accounted for approximately three times the variance in work engagement in comparison to both of these individual difference variables. Taken together, these results indicate that spiritual resources represent a set of individual difference factors that are both distinct from personality dimensions and have incremental validity in relation to the motivation process of the JD-R model among religious workers. This finding is theoretically significant, suggesting that spiritual resources should be included as a significant

**Table 4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Work Engagement $R^2$ value</th>
<th>Exhaustion $R^2$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1 Hypothesized Extended JD-R</td>
<td>.639</td>
<td>.492</td>
</tr>
<tr>
<td>M2 Expanded JD-R with SR→WE and SR→EX constrained to zero</td>
<td>.606</td>
<td>.485</td>
</tr>
<tr>
<td>M3 Expanded JD-R with FFM→WE and FFM→EX constrained to zero</td>
<td>.614</td>
<td>.466</td>
</tr>
<tr>
<td>M4 Expanded JD-R with JR→WE and JD→EX constrained to zero</td>
<td>.512</td>
<td>.354</td>
</tr>
<tr>
<td>Model comparisons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1 vs. M2 $\Delta R^2$</td>
<td>.033</td>
<td>.013</td>
</tr>
<tr>
<td>M1 vs. M3 $\Delta R^2$</td>
<td>.025</td>
<td>.036</td>
</tr>
<tr>
<td>M1 vs. M4 $\Delta R^2$</td>
<td>.127</td>
<td>.138</td>
</tr>
</tbody>
</table>

Note. JD-R = job-demands resources; SR = Spiritual Resources latent variable; WE = Work Engagement latent variable; FFM = manifest variables of Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness; EX = Exhaustion latent variable; JR = Job Resources latent variable; JD = Job Demands latent variable.

**Table 5**

<table>
<thead>
<tr>
<th>Relationships between Spiritual Resources and the dual processes of the JD-R model</th>
<th>Standardized parameter estimate</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Resources → Work Engagement</td>
<td>.26</td>
<td>.04</td>
<td>.001</td>
</tr>
<tr>
<td>Spiritual Resources → Exhaustion</td>
<td>-.14</td>
<td>.04</td>
<td>.001</td>
</tr>
<tr>
<td>Spiritual Resources → Work Engagement → Turnover Intention</td>
<td>-.13</td>
<td>.02</td>
<td>.001</td>
</tr>
<tr>
<td>Spiritual Resources → Exhaustion → Emotional Ill-Health</td>
<td>-.07</td>
<td>.02</td>
<td>.001</td>
</tr>
<tr>
<td>Spiritual Resources → Exhaustion → Turnover Intention</td>
<td>-.01</td>
<td>.01</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note. ns = nonsignificant. All standardized parameter estimates between remaining variables from Model 1 not contained in the above table are available upon request from the primary author.
subcategory of personal resources functioning in the JD-R model, at least for religious workers. However, this cross-sectional analysis suggests that spiritual resources and personality traits are not as strongly related to work engagement as job resources.

Spiritual resources were also found to significantly influence the health impairment process through a negative relationship with exhaustion, which in turn was related to emotional ill-health. Though the unique contribution of spiritual resources to the reporting of exhaustion was three times less than that of personality, the contribution accounted for by job demands was again larger than both, which is consistent with previous research suggesting situational and organizational factors have a greater effect on exhaustion than individual difference dimensions (Burke & Richardsen, 2001; Maslach, Sauterhi, & Leiter, 2001). Overall, these findings support prior studies (Golden et al., 2004; Rodgerston & Piedmont, 1998) that indicate the influence of spirituality on burnout measures is weak in the presence of personality dimensions.

Limitations and Future Directions

This study extends the existing literature concerning the incremental significance of spiritual resources to the occupational well-being of religious workers, together with attesting to the usefulness of the JD-R model as a flexible theoretical framework that can accommodate a variety of job and personal characteristics that explain well-being at work. Nonetheless, some limitations of this study have relevance for future research.

The results were based exclusively on self-report data collected at one time period, and thus may be influenced by a variety of common method effects (Podsakoff et al., 2012). Although a statistical control for common method effects was employed to address this concern, future designs should employ some objective measures of job demands, resources, and outcomes such as direct observations of conditions, behavioral indicators of job- or personal resources, or records of absenteeism.

The cross-sectional design limits any conclusions being drawn concerning causal influences over time. Though the SEM analysis allows for the direction of relationships to be modeled, the causal nature of relationships modeled in this study need to be tested by studies using longitudinal and experimental designs (Taris, 2000). Finally, generalizability of the incremental significance of spiritual resources in the JD-R model is, on the basis of this study, limited to Christian vocational religious workers. Although the theorized mechanisms of meaningfulness and increased perceived control associated with spiritual resources are not restricted to the Christian faith, it must be acknowledged that basic elements of spiritual categories developed in predominantly Judeo-Christian theological frameworks are not necessarily appropriate for research in non-Western cultural contexts (Traphagan, 2005). An important future direction for research will be to identify and test the efficacy of spiritual resources for religious workers from faith traditions other than Christianity, and also to assess the incremental significance of spiritual resources among employees for whom religion is important, but whose vocation is not explicitly religious.

Conclusion

This research examined the relationships between spiritual resources and the dual processes of the JD-R model in the presence of all five dimensions of the FFM of personality. Spiritual resources emerged as being a related yet distinct construct relative to personality that demonstrated incremental validity in explaining unique variance concerning measures of work engagement and exhaustion among religious workers. This study will provide a useful platform for further investigations of spiritual resources and their interaction with personality factors in vocational contexts.

References


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