

Personality and Spiritual Well-Being Affect Psychological Capital

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## Abstract

Psychological capital (PsyCap) has been shown to be related to non-cognitive constructs such as personality and well-being. The current study extended previous research by including the four PsyCap facets (Hope, Optimism, Resilience, and Self-efficacy) in addition to the overall score. Further, whereas previous studies used measures of well-being reflecting psychological (emotional and mental health) or subjective (satisfaction with life) content, the current study adds to the literature by focusing on spiritual well-being (religious and existential). Participants were 122 graduate students who completed the NEO-PI-R, Spiritual Well-Being Questionnaire, and Psychological Capital Questionnaire. Consistent with previous findings measures of personality were significantly related to psychological capital. Also measures of spiritual well-being were correlated with PsyCap Resilience, Optimism and the PsyCap total score. However, in general, the strength of the correlations was lower than those reported previously. Extraversion was the only personality or spiritual well-being score that was significantly correlated with the overall PsyCap score and each of its components. Regression analyses revealed that the most consistent predictors of PsyCap and its components were extraversion (+), religious well-being (-), and existential well-being (+). The negative regression weight for religious well-being may be due to multicollinearity shown by its strong ( $r = .83$ ) correlation with existential well-being. The strongest predictive relationships occurred for the overall PsyCap score and Self-efficacy; the weakest was for Hope. Implications are provided and additional research recommended.

*Keywords:* psychological capital, spiritual well-being, personality, regression

### Personality and Spiritual Well-Being Affect Psychological Capital

The positive psychology movement (Seligman & Csikszentmihalyi, 2000) attempts to understand behavior by focusing on positive human characteristics. Positive organizational behavior (POB; Luthans, 2002), an outgrowth of positive psychology, is concerned with the study and application of positive human psychological capacities and resources that affect organizational outcomes (i.e., employee attitudes, behaviors, satisfaction, and performance). Psychological capital (PsyCap), a key POB construct, has been shown to be positively related to workplace attitudes and behaviors such as absenteeism, job satisfaction, organizational citizenship behavior, organizational commitment, turnover, and work performance (Avey, Luthans, & Jensen., 2009; Avey, Luthans, Smith, & Palmer, 2010; Luthans, Avolio, Avey, & Norman, 2007; Nafei, 2015; Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011; Walumbwa, Peterson, Avolio, & Hartnell, 2010).

### Literature Review

Psychological capital (PsyCap) is defined as an individual's positive psychological state of development implying change and malleability over time. This psychological state is characterized by hope, optimism, resilience, and self-efficacy (Luthans, Avolio, Avey, & Norman, 2007). Luthans, Youssef, and Avolio (2007) offer the definition of PsyCap in terms interpretable as personality traits in the Big Five model (Costa & McCrae, 1992) suggesting a nexus.

Despite the proposed theoretical relations between personality and psychological capital, PsyCap proponents (e.g., Avey et al., 2010) consider it to represent a psychological state as opposed to a more enduring personality trait. Youssef-Morgan and Luthans (2015) proposed a conceptual framework linking psychological capital and well-being in which psychological

capital triggers affective, cognitive, conative, and social mechanisms that lead to happiness and well-being.

PsyCap has been shown to be related to noncognitive constructs such as personality (Brandt, Combs, & Boyanova, 2011; Choi & Lee, 2014; Lorenz, Beer, Pütz, & Heinitz, 2016) and well-being (Avey et al., 2010; Choi & Lee, 2014; Hansen, Buitendach, & Kanengoni, 2015; Lorenz et al., 2016). Choi and Lee (2014) observed significant correlations between PsyCap and indicators of personality and subjective well-being in a sample of 373 employees in 10 South Korean organizations. Subjective well-being was assessed using a global satisfaction with life scale. The correlations with PsyCap were: agreeableness (.27), conscientiousness (.48), emotional stability (.44), extraversion (.37), openness (.16), and subjective well-being (.48). Lorenz et al. (2016) examined the relations between psychological capital, personality, and subjective well-being in a sample of 203 employed individuals in Germany. Lorenz et al. used different measures of psychological capital, personality, and subjective well-being than did Choi and Lee (2014). Psychological capital was assessed using the Comprehensive PsyCap Scale (CPC-12) which was shown to correlate .70 with the PCQ. Personality was measured using the Big Five Inventory. Subjective well-being was assessed using a composite of measures of positive and negative affect, job satisfaction, and satisfaction with life. Despite differences in the measures used, with the exception of agreeableness Lorenz et al. observed similar results to those reported by Choi and Lee (2014). The correlations with psychological capital were: agreeableness (.04), conscientiousness (.29), emotional stability (.49), extraversion (.24), openness (.20), and subjective well-being (.58). The correlations between PsyCap and the four subjective well-being components were: positive affect (.54), negative affect (-.25), job satisfaction (.40), and satisfaction with life (.39). Brandt et al. (2011) reported that PsyCap and

personality were correlated in a sample of 144 individuals from Bulgaria, Finland, and Portugal. Though the correlations were not provided, they reported that extraversion had the strongest relationship with PsyCap.

Avey et al. (2010) reported a correlation of .47 between PsyCap and psychological well-being (PWB) in a study of employees' attitudes, behavior, and organizational performance in a sample of 280 working adults. PWB was measured by the Index of Psychological Well-Being (emotional well-being; Berkman, 1971) and the General Health Questionnaire (mental health/well-being; GHQ-12; Goldberg, 1972). Despite differences in the instruments used to assess well-being, the .47 correlation between PsyCap and PWB reported by Avey et al. was very similar to the values reported by Choi and Lee,  $r = .48$ , (2014) and Lorenz et al.,  $r = .58$ , (2016) for psychological capital and subjective well-being. A somewhat lower correlation between PsyCap and subjective well-being ( $r = .39$ ) was reported by Lorenz et al. (2016) for a measure of satisfaction with life ( $r = .39$ ) which was a component of their subjective well-being composite and by Hansen et al. (2015) for a sample of 103 South African university employees ( $r = .30$ ) where a satisfaction with life questionnaire was used to measure subjective well-being.

Spiritual well-being (Ellison, 1983) has been the subject of research. In many cases the focus has been clinically oriented. As early as 1989, Kaczorowski (1989) found an inverse relationship between spirituality and trait-state anxiety in cancer patients. Peterman, Fitchett, Brady, Hernandez, and Cella (2002) reported the development of a clinical spirituality scale for use with people with cancer and other chronic illnesses. Lin and Bauer-Wu (2003) studied psycho-spiritual well-being and coping in cancer patients and found that spiritual well-being offered some protection for patients coping with impending death. Similarly, McClain, Rosenfeld, and Breitbart (2003) observed negative relations between spiritual well-being and

desire for a hastened death, hopelessness, and suicidal ideation in a sample of 160 patients in a palliative care hospital. Further, when used in combination with a measure of depression and other variables, spiritual well-being added unique predictiveness and was the strongest predictor of each outcome variable.

Given the relationship between PsyCap and both psychological and subjective well-being, it is reasonable to ask if PsyCap is related to other aspects of well-being such as spiritual well-being. Van Dierendonck (2005) extended the concept of psychological well-being to include spiritual well-being. Paloutzian and Ellison (1982) reported on the development of a Spiritual Well-Being Scale measuring both religious and existential well-being. They described the theory of the spiritual well-being, and suggested directions for future research.

Luthans, Youssef, and Avolio (2007) suggested that spiritual well-being is potentially a defining component of PsyCap and noted that additional theory construction, rigorous research and refined measurement instruments are needed. Also, it should be noted that Choi and Lee (2014) observed that PsyCap was significantly related to subjective well-being after controlling for the effects of personality. Personality using the Big Five model (Costa & McCrae, 1992) was included in the current study.

### **Purpose**

The current study extended previous research by including the four facets of psychological capital (Hope, Optimism, Resilience, and Self-efficacy) in addition to the overall PsyCap score. Because of previous studies, measures of personality were also included. Further, a different measure of well-being was used which focused on spiritual rather than psychological or subjective well-being.

## Hypotheses

Based on the positive relations of psychological and subjective well-being with PsyCap observed in previous studies, we expected spiritual well-being to be positively related to psychological capital. Further, we hypothesized that personality and spirituality would be predictive of psychological capital in regression analyses.

The first formal hypothesis was about correlations of the study variables

$$H0: \rho = 0.0$$

$$H1: \rho \neq 0.0$$

And the second formal hypothesis was about the difference between two multiple regression equations.

$$H0: \rho_1 = \rho_2$$

$$H1: \rho_1 \neq \rho_2$$

## Method

### Participants

The sample consisted of 122 graduate students (41 males and 81 females) enrolled in a master's or doctoral leadership studies program at a small, private, Catholic university in south central Texas who completed the NEO-PI-R, Spiritual Well-Being Questionnaire, and Psychological Capital Questionnaire. Their mean age was 42.1 years ( $SD = 1.7$ ). Self-identified racial/ethnic composition of the sample was 14.8% Black, 47.5% Hispanic, 14.8% White, and 13.9% missing. All members of the sample were employed full time in professional occupations.

## Measures

**NEO Personality Inventory-Revised.** The NEO Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992) measures the Big Five personality domains of Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). These domains provide a comprehensive measurement of adult personality.

The NEO PI-R was developed with the goal of being a multipurpose personality inventory useful for predicting several criteria such as behaviors related to career interests, coping styles, fitness, and psychological health (Costa & McCrae, 1992). Examinees are instructed to respond to 240 statements using a 5-point Likert-type scale, ranging from 1) strongly disagree to 5) strongly agree. Descriptions of the five domain scales are provided in the test manual (Costa & McCrae, 1992). Internal consistency reliabilities (coefficient alpha) in a sample of 1,539 men and women in a large organization ranged from .86 (Agreeableness) to .92 (Neuroticism) (Costa & McCrae, 1992).

**Psychological Capital Questionnaire.** The Psychological Capital Questionnaire (PCQ; Luthens, Avolio, Avey, & Norman, 2007) was used to assess leader's psychological capital (PsyCap). The PCQ has four 6-item subscales that measure the positive organizational constructs of hope, optimism, resilience, and self-efficacy. Hope is defined as a positive emotional state based on the interaction between one's goal-directed energy and the ability to recognize a means to achieve those goals (Snyder, Sympson, Ybasco, Borders, Babyak, & Higgins, 1996). Optimism is defined as making an internal, relatively stable, and global attribution regarding positive events (e.g., goal achievement) and an external, relatively unstable, and specific cause for negative events (e.g., failure to meet a specific goal) (Seligman, 1998). Resilience is a positive psychological ability to cope with adversity, conflict, failure, change, or increased

responsibility and adapt as needed (Luthans & Church, 2002). Self-efficacy is the person's confidence about their ability to mobilize their cognitive resources, courses of action, and motivation to perform a specific task in a given context (Stajkovic & Luthens, 1998).

Luthens, Youseff, and Avolio (2007) reported Cronbach's alpha for the four scales and overall PCQ score for four samples. The reliability estimates ranged from .72 to .90 for Hope, .69 to .79 for Optimism, .66 to .72 for Resilience, .75 to .85 for Self-efficacy, and .88 to .89 for the overall PCQ score.

**Spiritual Well-Being Scale.** The Spiritual Well-Being Scale (SWBS; Paloutzian & Ellison, 1982) is a self-assessment measure of perceived general well-being and an overall indicator of spiritual quality of life. The 20-item SWBS has two 10-item subscales - Religious Well-Being (RWB) and Existential Well-Being (EWB). The RWB score assesses an individual's relationship with God. The EWB score measures the degree to which an individual is adjusted to self, community, and surroundings; one's sense of life, purpose, and satisfaction.

The internal consistency reliability (coefficient alpha) across 7 samples ranged from .82 to .94 for RWB, .78 to .86 for EWB, and .89 to .94 for the total SWB score (Bufford, Paloutzian, & Ellison, 1991). Test-retest reliability estimates across 4 studies with retest intervals between 1 to 10 weeks were .88 to .99 for RWB, .73 to .98 for EWB, and .82 to .99 for the total SWB score (Paloutzian & Ellison, 1991).

### **Analyses**

Analyses began with examination of the means, standard deviations (SDs), and correlations for the study variables. Next, regression analyses were conducted to determine the extent to which personality and spiritual well-being were predictive of the psychological capital

scores. The overall PsyCap score or its four component scores were regressed on the personality and spiritual well-being scores. All analyses used a  $p \leq .05$  Type I error rate.

## Results

Means, standard deviations (SDs), and correlations among test scores are summarized in Table 1. Mean scores for study participants were somewhat higher than those for the general adult normative population for all five raw NEO-PI-R domain scores: Neuroticism (71.2 vs. 64.8), Extraversion (131.9 vs. 126.0), Openness (130.1 vs. 125.4), Agreeableness (134.1 vs. 124.5), and Conscientiousness (141.9 vs. 133.4) (Costa & McCrae, 1992). With the exception of Neuroticism (SD = 33.2 vs. 20.2) NEO-PI-R scores for study participants were less variable than for adult population norms: Extraversion (SD = 15.5 vs. 17.8), Openness (SD = 16.4 vs. 17.5), Agreeableness (SD = 14.4 vs. 15.1), and Conscientiousness (SD = 17.8 vs. 18.3). These differences in variabilities suggest that the sample shows the result of prior selection with range restriction for all but the Neuroticism score.

The mean total PsyCap score in the sample was 19.6 with a standard deviation of 1.40. Comparing this to previous research such as Werning (2014) it is necessary to sum the scales and create an average of the four scales. After doing this, the mean in the current study was 4.9 with a standard deviation of .40. The mean and standard deviation in the Werning study of 7,512 American workers in multinational corporations showed a mean of 4.67 and a standard deviation of .80.

Previous studies reported lower mean scores (Avey et al.,  $M = 4.8$ ; Brandt et al., 2011,  $M = 4.3$ ; Choi & Lee, 2014,  $M = 4.2$ ; Hansen et al., 2015,  $M = 4.6$ ; Larson et al., 2013,  $M = 4.7$ ; Lorenz et al., 2016,  $M = 4.5$ ; Nafei, 2015,  $M = 3.4$ ; Peterson et al., 2011,  $M = 3.7$ ; Walumbwa et

al., 2010,  $M = 2.92$ ). In the current study the means for the PsyCap subscales were 5.4 for Efficacy (PC-E), 5.0 for Hope (PC-H), 4.9 for Resilience (PC-R), and 4.2 for Optimism (PC-O).

Mean scores for the RWB (46.3) and EWB (44.7) were in the moderate range (21-49) of the adult population norms (Paloutzian & Ellison, 1982). We note that the moderate range appears to cover the middle 50% of the normal distribution; however, the authors offer no rationale for the score ranges.

Table 1. Means SDs, and Correlations of Study Variables

Score	N	E	O	A	C	RWB	EWB	PC-E	PC-H	PC-R	PC-O	PsyCap
Mean	71.2	131.9	130.1	134.1	141.9	46.3	44.7	5.4	5.0	4.9	4.2	19.6
SD	33.2	15.5	16.4	14.4	17.8	12.8	9.7	0.46	0.57	0.52	0.52	1.40
N	1.00											
E	-0.16 <sup>a</sup>	1.00										
O	-0.08	0.52 <sup>c</sup>	1.00									
A	-0.13	0.10	0.17 <sup>a</sup>	1.00								
C	-0.46 <sup>c</sup>	0.28 <sup>c</sup>	0.23 <sup>b</sup>	0.13	1.00							
RWB	0.19 <sup>a</sup>	0.07	0.04	0.05	-0.11	1.00						
EWB	0.06	0.12	0.14	0.07	-0.01	0.83 <sup>c</sup>	1.00					
PC-E	-0.08	0.40 <sup>c</sup>	0.37 <sup>c</sup>	-0.03	0.17 <sup>a</sup>	-0.04	0.13	1.00				
PC-H	-0.01	0.21 <sup>b</sup>	0.12	-0.04	0.15 <sup>a</sup>	-0.07	0.08	0.37 <sup>c</sup>	1.00			
PC-R	-0.21 <sup>b</sup>	0.24 <sup>b</sup>	0.22 <sup>b</sup>	0.09	0.36 <sup>c</sup>	0.01	0.20 <sup>a</sup>	0.50 <sup>c</sup>	0.15 <sup>a</sup>	1.00		
PC-O	-0.25 <sup>b</sup>	0.15 <sup>a</sup>	0.21 <sup>b</sup>	-0.02	0.10	0.09	0.27 <sup>c</sup>	0.28 <sup>c</sup>	-0.02	0.43 <sup>c</sup>	1.00	
PsyCap	-0.20 <sup>b</sup>	0.36 <sup>c</sup>	0.33 <sup>c</sup>	0.00	0.29 <sup>c</sup>	0.00	0.25 <sup>b</sup>	0.77 <sup>c</sup>	0.57 <sup>c</sup>	0.76 <sup>c</sup>	0.62 <sup>c</sup>	1.00

*Notes.* The scores are: N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness;

C = Conscientiousness; RWB = Religious Well-Being; EWB = Existential Well-Being; PC-E = PsyCap Efficacy;

PC-H = PsyCap Hope; PC-R = PsyCap Resilience; PC-O = PsyCap Optimism; and PsyCap = Psychological Capital

total score; N = 122; <sup>a</sup> $p \leq .05$ ; <sup>b</sup> $p \leq .01$ ; <sup>c</sup> $p \leq .001$  Any correlation so marked indicated a rejected null hypothesis.

Extraversion was the only personality or spiritual well-being score that was significantly correlated with the overall PsyCap score and each of its components. Both Openness and Conscientiousness were significantly correlated with three of the four PsyCap components and the overall score. Neuroticism (-) and Existential well-being (+) were significantly related to two of the four components (Resilience and Optimism) and the overall PsyCap score. Neither Agreeableness nor Religious well-being was significantly correlated with any of the PsyCap components or the overall score. The correlation of RWB and EWB was very high ( $r = .83$ ), suggesting collinearity which has the potential effect of increasing standard errors of regression coefficients. As explained by O'Brien (2007), the high correlation between RWB and EWB does not invalidate the regression model.

Results of the regression analyses are summarized in Table 2. In the first set of regressions all of the Big Five domain scores and both spiritual well-being scores were entered into the regressions. Each of the psychological capital scores was significantly predicted by a combination of the personality and spiritual well-being scores. The strongest predictive relationship occurred for the overall PsyCap score ( $R = .587$ ). The  $R$  values for the component scores were: Efficacy (.515), Hope (.342), Resilience (.483), and Optimism (.457). Not all predictors had statistically significant regression weights when all scores were entered into the regression equation. The most consistent predictors of psychological capital were extraversion and the two spiritual well-being scores. The regressions were conducted again using the stepwise method to disclose the significant predictors. In the stepwise regressions, Extraversion was related to Efficacy, Hope, and the PsyCap total score. The RWB and EWB scores were predictive of the Resilience and Optimism scores as well as the PsyCap total score.

Table 2. Summary of Regression Analyses

Criterion	Regression Method	Standardized Regression Weights							Multiple R
		N	E	O	A	C	RWB	EWB	
PC-E	Enter	0.034	0.277 <sup>b</sup>	0.200 <sup>a</sup>	-.098	.032	-.421 <sup>b</sup>	.426 <sup>a</sup>	.515 <sup>c</sup>
	Stepwise		.280 <sup>b</sup>	.227 <sup>a</sup>					.444 <sup>c</sup>
PC-H	Enter	.122	.195	-.022	-.066	.124	-.413 <sup>a</sup>	.397 <sup>a</sup>	.342 <sup>a</sup>
	Stepwise		.212 <sup>a</sup>						.212 <sup>a</sup>
PC-R	Enter	-.031	.099	.045	.018	.262 <sup>b</sup>	-.364 <sup>a</sup>	.502 <sup>c</sup>	.483 <sup>c</sup>
	Stepwise					.317 <sup>c</sup>	-.396 <sup>b</sup>	.534 <sup>c</sup>	.466 <sup>c</sup>
PC-O	Enter	-.246 <sup>a</sup>	.023	0.146	-.093	-.071	-.328 <sup>a</sup>	.544 <sup>c</sup>	.457 <sup>c</sup>
	Stepwise	-.215 <sup>a</sup>					-.350 <sup>a</sup>	.578 <sup>c</sup>	.424 <sup>c</sup>
PsyCap	Enter	-.042	.214 <sup>a</sup>	.129	-.086	.133	-.570 <sup>c</sup>	.691 <sup>c</sup>	.587 <sup>a</sup>
	Stepwise		.316 <sup>c</sup>				-.651 <sup>c</sup>	.754 <sup>c</sup>	.554 <sup>c</sup>

*Notes.* The scores are: N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness;

C = Conscientiousness; RWB = Religious Well-Being; EWB = Existential Well-Being; PC-E = PsyCap Efficacy;

PC-H = PsyCap Hope; PC-R = PsyCap Resilience; PC-O = PsyCap Optimism; and PsyCap = Psychological Capital

total score. In the enter regression method, not all predictors had statistically significant regression weights. The

regressions were conducted again using the stepwise method to disclose the significant predictors; N = 122; <sup>a</sup>p ≤ .05;

<sup>b</sup>p ≤ .01; <sup>c</sup>p ≤ .001 Any regression so marked indicated a rejected null hypothesis.

## Discussion

The current study added to the previous literature on the relations between well-being and psychological capital in two ways. First, the current focus was on spiritual well-being as opposed to psychological or subjective well-being. Second, the current study examined the individual facets of psychological capital (Efficacy, Hope, Resilience, and Optimism) in addition to the overall construct.

Do personality and spiritual well-being affect psychological capital? Consistent with previous findings, personality (Brandt et al., 2011; Choi & Lee, 2014; Lorenz et al., 2016) and

well-being (Avey et al., 2010; Choi & Lee, 2014; Hansen et al., 2015; Lorenz et al., 2016) were significantly correlated with psychological capital. Further, the relations between spiritual well-being and personality were very similar for overall psychological capital and its components.

However, in general, the strength of the correlations was lower in the current study. The reason for this difference is unknown, but may be due to differences in sample characteristics or measures used to assess the constructs. The participants in the current study scored higher than available norms or previous studies on the measures of personality, and PsyCap, but slightly lower for spiritual well-being.

Previous studies that used employees in a work environment (Avey et al., 2010; Choi & Lee, 2014; Lorenz et al., 2016) reported stronger relations between PsyCap and well-being. The correlation between PsyCap and EWB in the current study which used graduate students was similar to the value reported by Hansen et al. (2015) between PsyCap and SWB which also occurred in an educational setting. However, the correlation between RWB and PsyCap in the current study was lower than that reported for any other measure of well-being.

Differences in the strength of the correlations between PsyCap and well-being across studies also may be due to differing content of the well-being measures. Previous studies focused on psychological facets of well-being such as emotional and mental health (Avey et al., 2010), satisfaction with life (Choi & Lee, 2014), and a composite consisting of measures of positive and negative affect, job satisfaction, and satisfaction with life (Lorenz et al., 2016). In contrast, the current study operationalized the construct of well-being only in spiritual terms (religious and existential).

The contribution of the RWB score to the regression models was surprising since its zero-order correlations with the psychological capital scores were not statistically significant.

The negative regression weights for RWB may be due to its strong collinearity with EWB ( $r = .83$ ). The personality variable Extraversion acted in a complementary manner to the two

Spiritual Well-being (RWB and EWB) scores in the prediction of PsyCap components.

Extraversion was related to Efficacy and Hope, while RWB and EWB were related to Resilience and Optimism.

### **Implications**

It is reasonable for different facets of constructs to correlate differently with criteria. The psychological and subjective facets of well-being constructs should not necessarily correlate at the same magnitude with a criterion as the spiritual well-being facets.

Additionally, the factor structure of well-being measures should be investigated for the presence of general, group, and specific factors. A limitation of this study was its reliance on a sample of convenience made up of students. Future studies should use representative samples of adults and use multiple measures of well-being that focus on different facets of the construct to determine construct complexity.

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