Positive Practices Instrument: An Examination of the Factor Structure & Criterion-Related Validity

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This study investigates the factor structure and criterion-related validity of the Positive Practices Instrument (PPI). Positive Organizational Scholarship (POS) researchers have explored the factor factor structure and construct validity of the Positive Practices Instrument. The literature review suggested additional research was needed to establish the factor structure of PPI using methods that were beyond those employed thus far. This research contributed towards addressing the requirements. An exploratory factor analysis followed by a confirmatory analysis was conducted. The analysis suggested the presence of a two-factor structure: positive and interpersonal practices and meaning and purpose of work.

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Introduction

Positive organizational scholarship (POS) was first introduced as a field of study in the year 2003 (Spreitzer & Cameron, 2011). POS focused on the generative and life-giving dynamics in organizations (Cameron & McNaughtan, 2014). Presence of POS led to developing human strength, fostered resiliency among employees, enabled healing and cultivated individual creativity (Cameron & Winn, 2011). This improved organizational performance (Cameron & Spreitzer, 2011a). Scholars while applying POS theoretically emphasized the attention toward life-giving elements (Carlsen et al., 2011). POS scholars focused on generative processes associated with adversities and difficulties (Cameron & Spreitzer, 2011). Furthermore, organizational celebrations and successes, were examined (Cameron & Spreitzer, 2011; Carlsen et al., 2011; Spreitzer & Cameron, 2011). POS scholars fo-

cused on exploring extraordinarily positive outcomes or positive deviant performance in organizations (Cameron & Spreitzer, 2011; Cameron & McNaughtan, 2014). POS as a concept focused on individuals, groups, and organizations to build, broaden, strengthen organizational capabilities (Cameron & Spreitzer, 2011). Scholars also examined virtuousness or the best human condition (Cameron et al., 2011; Cameron & Spreitzer, 2011; Cameron & Winn, 2011). The above approaches did not precisely defined the term "positive," but instead identified POS as a domain.

Organizational virtuousness often included traditional performance outcomes for an organization (Cameron & Spreitzer, 2011). These were increased profits or decreased employee turnover rates (Spreitzer & Cameron, 2011). POS scholars adopted the view that virtuousness referred to the "good" (Cameron & McNaughtan, 2014) . It had to be chosen for its own sake, regardless of its potential impact on performance outcomes (Carlsen et al., 2011). Virtuousness was not a means to obtain another end but was considered an end with value and worth. Therefore, virtuousness for pursuing another outcome, such as profit, was not considered virtuousness (Davis, 2009). Forgiveness, compassion, kindness, gratitude, and courage in expectation of returns were also not considered virtuous if these actions were fostered in an organization solely to obtain an advantage (Jensen, 2002). Engaging in such actions to obtain some advantage was regarded as manipulation (Cameron & Winn, 2011). Virtuous actions produce an advantage to others in addition to, or even exclusive of, recognition, benefit, or advantage by the actor (Cawley et al., 2000). Virtuousness did not require a visible and instrumental pay-off for value. This was more so when observable and bottom-line impacts were not detected. Furthermore, attention to virtuousness became subservient to the pressures for enhancing financial return and organizational value (Davis, 2009; Jensen, 2002). Thus, without a visible payoff, employees with stewardship responsibilities for organizational resources might ignore virtuousness and consider it of little relevance to stakeholders (Davis, 2009). To better identify the psychometric properties of the PPI, this study sought to test its factor structure using confirmatory factor analysis. Furthermore, to assess the criterion-related validity of PPI was done by examining its association with variables expected to be related to employees' perceptions of organizational positive practices.

Literature Review

Positive Organizational Scholarship (POS) had made significant advances since its theoretical foundational debates in the year 2003 (Spritzer & Cameron, 2011). Studies indicated correlation between positive practices at work (like respectful treatment, integrity, development) and individuals' positive affect (like satisfaction, well-being) (Cameron & Winn, 2011). This had also correlated with positive individual behavior (like retention, engagement) and organizational effectiveness (like profitability, produc-

tivity) (Cameron et al., 2011). Scholars had used instruments, such as the Survey of Organizational Virtuousness and Positive Practices Instrument, which POS researchers admitted towards requiring further psychometric testing (Cameron et al., 2011; Cameron & Winn, 2011). Specifically, in the domains of POS, researchers desired clear definitions and validated measures of core constructs (Spritzer & Cameron, 2011). In his critique of measurement in this area, Hackman (2009) noted the lack of serious attempts to explore the conceptual basis of the terms used in these measures. Hackman (2009) also argued for the need to establish construct validity of the concepts as central to the reported findings. Hackman (2009:312) stated, "construct validity is the sine qua non of theory development" and called for POS researchers to attend more carefully to the construct validity of the central concepts in the field.

To address the criticisms set forth by Hackman and others, POS researchers used exploratory factor analysis to explore the factor structure and construct validity of the Positive Practices Instrument (PPI) (Cameron et al., 2011). Scholars suggested for additional research needed to establish the factor structure of the PPI.

The Heliotropic effect suggested human beings that were drawn to positive and life-giving environments. A positive environment stimulated positive energy, emotions, affective well-being, and resourcefulness (Cameron, 2003, Cameron & Spreitzer, 2011; Cameron & Winn, 2011). As employees' perceptions of positive/virtuous behaviors increased, organizational experiences benefited across all typical performance indicators (such as profitability, innovation, customer satisfaction, employee satisfaction, employee loyalty and such others) (Cameron & Spreitzer, 2011; Cameron & Winn, 2011).

POS scholars had examined the best human characteristics as virtue and virtuousness (Cameron & Spreitzer, 2011; Cameron & Winn, 2011; Gittell et al., 2006). Virtue referred to "individual attributes that represent moral excellence, inherent goodness, and what represents humanity's very best qualities" (Cameron & Winn, 2011: 232), as well as "specific manifestations of a particular type of character excellence" (Bright et al., 2006 : 251). Virtuousness referred to "constellations of virtues in the aggregate…manifest by collectives of people, and it can be fostered by organizational policies, processes, and practices" (Cameron & Winn, 2011 : 232), as well as "the ideal state of excellence in human or organizational character" (Bright et al., 2006, : 251). Individuals in organizations were responsible for developing virtue (Arjoon, 2000; Nesteruk, 1996) at both individual and collective levels (Schudt, 2000). Organizational virtuousness included "individuals' actions, collective activities, cultural attributes, or processes that enable dissemination and perpetuation of virtuousness in an organization" (Cameron, Bright & Caza, 2004 : 768).

Virtuous environments that deviated

from the norm created and fostered sustainable positive energy (Cialdini, 2001). This elevated and self-perpetuated, and created an amplifying effect (Cameron & Winn, 2011; George, 1995). Fredrickson and Joiner (2002) suggested that virtuous environments created upward spirals of positive dynamics. One of the contributing factors to this was due to the phenomenon that when people observed virtuous behavior in others, they tended to respond by displaying virtuous behavior themselves (Cialdini, 2001). When individuals experienced and observed virtuous acts, their social, intellectual, and emotional capacities were broadened and expanded (Fredrickson, 2002; 2003; Fredrickson & Joiner, 2002). Virtuousness amplified because it was associated with three consequences: positive emotions, social capital, and prosocial behavior (Cameron et al., 2004).

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The eudemonic assumption espoused an inclination in all human beings toward goodness for its intrinsic value (Cameron & Winn, 2011). Aristotle viewed virtues, such as love, wisdom, and fulfillment, as "goods of first intent" or "that which is good in itself and is to be chosen for its own sake." "Goods of second intent" included "that which is good for the sake of obtaining something else," such as profit, prestige, or power (Cameron, Bright & Caza, 2004 : 769). One could argue that individuals are never tired or become satiated with goods of first intent (Haight, 2006). However, this was not true with goods of second intent. Furthermore, studies of the human brain suggested that individuals had an innate tendency toward morality and were organically inclined to be virtuous (Cameron & Winn, 2011; Haight, 2006).

In sum, virtuousness and positive practices, the heliotropic effect, the amplifying and buffering effects, and the eudemonic assumption provided theoretical foundations for understanding positive environments (Bright et al., 2006; Cameron, 2008; Cameron et al., 2011). In turn, these environments positively impacted traditional organizational and individual performance indicators (Cameron et al., 2011; Cameron and Spreitzer, 2011).

Organizational Virtuousness

Virtuousness with its reward did not require an instrumental outcome to be of worth. A a few scholars had explored the effects of virtuousness on organizational performance (Jensen, 2002). It was observed that virtuousness did not require a visible and instrumental pay-off to be of worth if observable. Also bottom-line impacts were not detected. Attention to virtuousness usually became subservient to the genuine pressures related to enhancing financial return and organizational values (Davis, 2009; Jensen, 2002). Leaders investing in practices or processes did not generate higher return to shareholders, profitability, productivity, and customer satisfaction. Without a visible payoff, those

with stewardship responsibilities for organizational resources will ignore virtuousness and consider it of little relevance to essential stakeholders (Wright & Goldstein, 2007). Hence, if associations between virtuousness and desired outcomes were observed in organizations, evidence of its pragmatic utility would be of value (Chun, 2005). This has been the motive for investigating the relationships between virtuousness and performance in organizations by the scholars.

Positive Practices Instrument

Prior to the development of the Positive Practices Instrument (PPI), there was no assessment instrument to capture positively deviant, affirming, and virtuous practices at the organizational level of analysis (Cameron et al., 2011, Chun, 2005; Wright & Goodstein, 2007). PPI consisted of 114 Likert-type items representing desirable, positively focused behaviors, techniques, or routines. The most refined version of the survey consisted of 29 items. Practices has been defined as "collective behaviors or activities sponsored by and characteristic of an organization" (Cameron et al., 2011: 270).

Each of the nominated positive practices has received support for its potential relationship with various organizational performance aspects (Baker et al., 2003). Cameron, Bright, and Caza (2004) found significant relationships between forgiveness, compassion, integrity, trust, optimism, and organizational climate with financial performance. Dutton et al. (2002) found associations between mutuality, cohesion, strong ties, openness, friendship, positive communication, and indicators of organizational performance. Baker et al. (2003) found relationships between shared energy, fluid expertise, unit influence and indicators of organizational performance. Wrzesniewski (2003) identified the positive effects of transcending self-interest, meaning, and renewal on organizational members. Grant et al. (2007) found that positive emotion, caring and giving behavior, and prosocial identity fostered organizational commitment. Factors like gratitude, hope, empathy, and love were found to predict commitment, satisfaction, motivation significantly, and turnover (Andersson et al., 2007; Fry et al., 2005; Giacalone et al., 2005)

Cameron et al. (2001) in an exploratory study indicated that PPI instrument yielded six stable dimensions: These were: (1) caring, (2) compassionate support, (3) forgiveness, (4) inspiration, (5) meaning, and (6) respect, integrity, and gratitude. These six dimensions were similar to a proposed list of virtues reported in prior published literature. For example, Chun (2005) reviewed several previous inventories of virtues and then analyzed the corporate ethical value statements of 158 *Fortune Global* firms. These analyses produced six dimensions of virtuous practices. Cameron et al. (2011) incorporated these six positive practice dimensions in the PPI.

Research Gaps & Questions

As mentioned earlier, the POS research findings suggested that there was a strong correlation between positive practices and traditional organizational

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and individual performance outcomes. This consisted of job satisfaction, job performance, and affective well-being (Cameron et al., 2011; Cameron & Spreitzer, 2011; Cameron & Winn, 2011). This study examined these relationships to assess the Positive Practices Instrument's criterion-related validity.

PPI was one of the primary instruments POS researchers applied. Several researchers ascertained the need for further psychometric testing, even referring to the instrument as 'blunt' (Cameron et al., 2011; Cameron & Winn, 2011). The authors aimed that this research study would benefit the field of POS by testing the factor structure and criterion-related validity of the PPI. The two primary research questions for this study were:

(1) What was the factor structure of the Positive Practices Instrument, and

(2) Did the Positive Practices Instrument have criterion-related validity?

The following were the study hypotheses:

H1: Employees' perceptions of organizational positive practices are positively associated with job satisfaction.

H2: Employees' perceptions of organizational positive practices are positively associated with affective well-being.

H3: Employees' perceptions of organizational positive practices are positively associated with job performance.

Participant Selection

In studies to effectively perform confirmatory factor analysis (CFA), a relatively large sample was needed. At least 300 responses were necessary for reliable statistical analysis and interpretation based on general guidelines that had been established for CFA (Myers et al., 2011). Therefore, a convenience sample of employees from various organizational types was selected. The sample included participants from service sector.

Measures

The participants were asked to complete a series of questionnaires consisting of 37 items from the PPI (Cameron et al., 2011), six items from the Index of Job Satisfaction (Brayfield & Rothe, 1951), 15 items from an affective well-being instrument (Daniels, 2000; Rego et al., 2010), four items from an individual (self-reported) job performance instrument (Rego & Cunha, 2008; Staples et al., 1999), five demographic questions, and a consent statement. The demographic questions collected information regarding gender, age, ethnicity, current employer, and experience duration with current employer. PPI (Cameron et al., 2011) was designed to gather information on employees' perceptions of the behaviors typical of the members within their work unit, department, or team, as well as their overall organization.

Data Collection

Permission to contact the respondents/participants and request their participation was obtained by the Institutional Review Board or the organizations' human resources department. Participants were contacted through email, directly by the researchers or indirectly through an approved designee of the organization (Myers et al., 2011). The email provided to the participants was sent with an introduction letter from the researchers, including an overview of the study purpose and documentation of informed consent. Researchers created the survey instruments. The participant completed the survey using Survey Monkey. Participants were only permitted to complete one survey within a fortnight. Researchers sent follow-up emails where needed.

Eighteen organizations from United States of America (USA) agreed to participate in this study. One organization was from the financial services industry, four were community colleges, and thirteen were fast-food restaurants. A total of 664 responses were received from across all organizational types. 7 respondents chose not to respond, leaving 657 respondents. A total of 230 individuals from the financial services industry were sent the survey, of which 147 responded, yielding a 63.9% response rate. A total of 890 individuals from the community colleges were sent the survey, of which 197 responded, yielding a 22.1% response rate. A total of 673 individuals from the fast food industry were sent the survey, of which 313 responded, yielding a 46.5% response rate. Across all organization types, 657 out of a possible 1,793 individuals responded, yielding a 36.6% response rate.

It was important to note that many respondents elected to skip one or more of the survey questions, yielding 535 useable cases for the factor analysis. At least 300 cases were needed for accurate statistical analysis and interpretation based on general guidelines established for CFA (Myers et al., 2011). Therefore, it was determined that there were enough useable cases to conduct the data analysis portion of the study. The participant details are presented In Table 1

Data Analysis & Results

Stata v.15 statistical software was used to run all the statistical testing. CFA was used to test the factor structure of the PPI (Cameron et al., 2011). A series of correlations with the criterion-related measures (job satisfaction, affective well-being, and individual job performance) were also generated. EFA was conducted when the CFA did not support the factor structure presented by the developers of the instrument (Cameron et al., 2011).

To determine the goodness of fit, a total of four tests were conducted. The guidelines presented by Tabachnik and Fidell (2013) were used for each test to determine if they met the suggested standards indicating the presence of a good-fitting model. The first test examined at the ratio of χ^2 to degrees of freedom. According to Tabachnick and Fidell 213:720), a "rough rule of thumb" to determine if the model was a good fit to

Table 1 Demographic Characteristics: Summary of All Respondents

Variables	N	Percentage
Gender		
Male	206	32.7
Female	424	67.3
Age		
18 to 24	203	31.7
25 to 34	83	13.0
35 to 44	113	17.6
45 to 54	123	19.2
55 to 64	92	14.4
65 to 74	26	4.1
75+	1	0.2
Ethnicity		
White	596	93.0
Hispanic or Latino	11	1.7
Black or African American	16	2.5
Native American or American Indian	3	0.5
Asian or Pacific Islander	7	1.1
Other	8	1.3
Length of Time Employed (years)		
Less than 1	140	21.8
1 to 5	263	41.0
6 to 10	109	17.0
11 to 15	57	8.9
16 to 20	36	5.6
20+	36	5.6
Highest Degree of Completed Education		
Did not complete high school	19	3.0
High school diploma or GED	203	31.8
Associate degree	70	11.0
Bachelor's degree	182	28.5
Master's degree	143	22.4
Doctoral degree	22	3.4

note if the ratio of the χ^2 to the degrees of freedom was less than 2. The model tested in this research found the ratio to be approximately 2.8. The second test examined the root mean square error of approximation (RMSEA). An RMSEA of .06 or less indicated the model was a good fit. The RMSEA was .058. The third test examined the comparative fit index (CFI). A CFI of more than .95 indicated the model was a good fit. The CFI was .932. The fourth test examined the standardized root mean square residual (SRMR). An SRMR of .08 or less indicated the model was a good fit. The SRMR was .04. Overall, two of the four

fit indices fell short of the criteria for a suitable fitting model.

The research conducted in this study used confirmatory factor analysis with the Satorra-Bentler correction for non-normality of data to test the factor structure found by Cameron et al. (2011). The results of the CFA are tabulated in Table 2.

Table 2 Goodness of Fit Statistics of Six-Factor Struture

Fit Statistic	Value
$\chi 2$ (362)	1020.291
Root mean square error of approximation (RMSEA)	0.058
Comparative fit index (CFI)	0.932
Standardized root mean square residual (SRMR)	0.040

The CFA presented in this section was run on the two-factor structure we found to be present after exploratory factor analysis. The Satorra-Bentler correction was used (Xia et al., 2016). To create the best-fitting model, any item with less than a loading of .8 was dropped, which resulted in the removal of 10 items from the instrument. We also reviewed the modification indices for adding covariances to the model and determined that it was necessary to add two covariances to improve the model fit. One covariance allowed for "We show appreciation for one another" and "We communicate the good we see in one another" to correlate. The second covariance allowed for "We display confidence in one another" and "We foster dignity in each other" to correlate.

After the goodness of fit was calculated, a correlation matrix of the factor scores for each factor was generated to determine the independence of the factors (Table 3). All correlations were significant, with all *p*-values being less than .001. The correlations were high. The lowest correlation was between meaning and caring, with 60.28% of their variance shared in common. The highest correlation was between inspiration and dignity, with 98.78% of their variance shared in common. These correlations and the lack of adequate model fit indicated by the CFA indicated the presence of indistinguishable dimensions. This suggested that the factor structure proposed by Cameron et al. (2011) could be contested. As a result, we decided that it was necessary to conduct an Exploratory

The highest correlation was between inspiration and dignity, with 98.78% of their variance shared in common.

Table 3 Correlation Matrix of Six-Factor Struture

	Dignity	Support	Caring	Meaning	Inspiration	Forgiveness
Dignity	1.0000					
Support	0.9935	1.0000				
Caring	0.9731	0.9888	1.0000			
Meaning	0.8667	0.8260	0.7764	1.0000		
Inspiration	0.9939	0.9822	0.9625	0.8980	1.0000	
Forgiveness	0.9044	0.8879	0.8199	0.8003	0.8988	1.0000

Factor Analysis (EFA) to identify and test the factor structure of the PPI (Stapleton, 1997).

An iterated principal factors analysis was used in the first step of the process. Utilizing the eigen value of 1 criterion, the results yielded two factors. An oblique Promax rotation was applied, with factor loadings of .35 or greater set as the criterion for retaining items on each factor (Stapleton, 1997). The lowest loading was .4782 ("We correct errors without placing blame"). The highest loading was .9678 ("We feel that our work has a profound meaning"). Each of the 29 items on the PPI displayed a factor loading of more than .35, and none was found to be a complex variable (i.e., factor loadings e" .35 on more than one factor). Following this, a CFA was generated to test the fit of the two-factor model. To determine the goodness of fit, the same four tests used in the previous CFA were used (Table 4).

Table 4 Goodness of Fit statistics for Two-Factor Model

Fit Statistic	Value
$\chi 2$ (149)	353.34
Root mean square error of approximation (RMSEA)	0.05
Comparative fit index (CFI)	0.968
Standardized root mean square residual (SRMR)	0.034

The first test looked at the ratio of χ^2 to the degrees of freedom. The model tested in this research found the ratio to be 2.4, slightly above the 2.0 cutoff (Xia et al., 2016). The second test looked at the root mean square error of approximation (RMSEA). An RMSEA of .06 or less indicates the model is a good fit. The RMSEA was .050. The third test examined the comparative fit index (CFI). A CFI of more than .95 indicated the model was a good fit. The CFI was .968. The fourth test examined the standardized root mean square residual (SRMR).

An SRMR of .08 or less indicated the model was a good fit. The SRMR was .034. The four tests' results all indicated adequate goodness of fit (Table 5).

Table 5 Goodness of Fit statistics: Comparisons Between Models

Fit Statistic	Two-Factor Value	Six-Factor Value
$\chi 2$ (149) for two-factor model	353.34	
$\chi 2$ (362) for six-factor model		1020.291
Root mean square error of approximation (RMSEA)	0.05	0.058
Comparative fit index (CFI)	0.968	0.932
Standardized root mean square residual (SRMR)	0.034	0.040

The title selected to describe one of the factors was 'Positive and Virtuous Interpersonal Practices.' This factor contained 15 items and measured the types of behaviors that employees perceived to be displayed with one another regularly. The following were a few examples of items from this factor: "we show appreciation for one another"; "we treat each other with respect"; "we care for fellow employees who are struggling", and "express gratitude to each other". These items helped to illustrate specific positive and virtuous interpersonal practices measured by this factor.

The title selected to describe the other factor was 'Meaning and Purpose of the Work'. This factor contained four items and measured the value the employees felt about their work. The following were a few examples of items from this factor: "we find our work motivating"; and "feel that our work has profound meaning". While the previous factor reflected specific interpersonal behaviors and practices, this factor appeared to be related to work.

After the goodness of fit statistics was calculated, a correlation matrix was generated to assess the relative independence of the factors (Table 6).

The correlation was high ($r = .827$) and significant ($p < .001$). This correlation might suggest the presence of two indistinguishable dimensions. Reliability estimates for the two factors were calculated and found to be very high. The reliability estimate was .971 for Positive and Virtuous Interpersonal Practices and .917 for the Meaning and Purpose of the Work. In Table 7 we present the final instrument after all items were dropped.

Table 6 Correlation Matrix of Two-Factor Structure

	Positive & Virtuous Interpersonal Practices	Meaning & Purpose of the Work
Positive & Virtuous Interpersonal Practices	1.0000	
Meaning & Purpose of the Work	0.8271	1.0000

Table 7 Two-Factor Version of the Positive Practices Instrument

Positive & Virtuous Interpersonal Practices (15 items)	Meaning & Purpose of the Work (4 items)
We show appreciation for one another	We find our work motivating
We communicate the good we see in one another	We are being elevated by our work
We treat each other with respect	We are being renewed by what we do
We genuinely care about each other	We feel that our work has profound meaning
We inspire each other	
We care for fellow employees who are struggling	
We are responsivve to each other	
We are interested in each other	
We express gratitude to each other	
We show compassion for each other	
We show kindness to one another	
We trust one another	
We provide emotional support to each other	
We display confidence in one another	
We foster dignity in each other	

The second research question for this study was whether PPI exhibited criterion-related validity. POS research findings indicated a strong correlation between positive practices and traditional organizational and individual performance outcomes, such as job satisfaction, job performance, and affective well-being (Cameron et al., 2011; Cameron & Spreitzer, 2011; Rego et al., 2010). It was reasonable to expect that these same relationships would be replicated in this study and could therefore be used to assess the criterion-related validity of PPI.

We present in Table 8 the correlations between Positive and Virtuous Interpersonal Practices, Meaning and Purpose of the Work, job satisfaction, job performance, and affective well-being.

Table 8 Correlation Matrix for All Variables

	Positive & Virtuous Interpersonal Practices	Meaning & Purpose of the Work	Job Satisfaction	Job Performance	Affective Well-Being
Positive & Virtuous Interpersonal Practices	1.0000				
Meaning & Purpose of the Work	0.8271***	1.0000			
Job Satisfaction	0.5200***	0.6567***	1.0000		
Job Peformance	0.4752***	0.4129***	0.4337***	1.0000	
Affective Well-Being	0.4787***	0.4855***	0.5337***	0.5258***	1.0000

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

All reported correlations were significant, with all *p*-values being less than .001 (Hair, 2011). The correlations were as follows: positive and virtuous interpersonal practices with job satisfaction (r = .520), positive and virtuous interpersonal practices with job performance (r = .475), positive and virtuous interpersonal practices with affective well-being (r = .479), meaning and purpose of the work with job satisfaction (r = .657), meaning and purpose of the work with job performance (r = .413), meaning and purpose of the work with affective well-being (r = .486). As a result, each of the three study hypotheses were supported. This demonstrated that the criterion-related validity of PPI existed. However, the exceptionally high correlation between the two factors raised questions about the scope to identify distinguishable dimensions of positive practices.

Discussion

This study consisted of two research questions aimed at investigating the factor structure and criterion-

related validity of the PPI. In prior studies, relationships were found to exist between employees' perceptions of positive practices and job satisfaction. Also, job performance was related to affective well-being. These variables were examined in this research study to assess the criterion-related validity of the PPI.

The results of the CFA indicated the presence of a two-factor structure. It consisted of positive and virtuous interpersonal practices and the meaning and purpose of the work. These factors were distinguishable conceptually, but the high correlation (r = .827) between variables indicated that positive practices consisted of only one factor.

Positive practices were not displayed in isolation from one another and should be viewed as a single factor.

Cameron et al. (2011) explained that no single positive practice factor accounted for more variance in outcome than other factors. They suggested this could be a product of imprecise measurement or that positive practices were not displayed in isolation. The findings regarding the criterion-related validity required explanation. This was because there was evidence for the instrument's validity. This entailed as each factor consistently correlated with the same variables. However, the high correlation between factors found in the two and six-factor solutions suggested that positive practices were not displayed in isolation from one another and should be viewed as a single factor.

Cameron et al. (2011) started with 114 items regarding PPI. Their research refined the instrument to 29 items measuring six factors. The results of this study suggested the presence of an instrument consisting of 19 items measuring two highly correlated factors. This updated version indicated that some of the correlations were found as same while using the 29-item instrument. This was also present when the 19-item version was used. Yet, the issue of multicollinearity among the dimensions that appeared in the study conducted by Cameron et al. (2011) was also found in this study. Thus, positive practices did not exist as a distinct, multidimensional construct. Positive practices could be viewed and were more accurately viewed as a unidimensional factor.

This study contained three hypotheses used to assess the criterion-related validity of PPI. The results indicated support for all three hypotheses. Also, the criterion-related validity of the PPI was present. However, the problem of multicollinearity discussed earlier raised questions regarding the uniqueness and meaning of the dimensions.

POS as a field of study has faced criticism from scholars (Dutton et al., 2008). The findings from this study did not refute the criticisms. Specifically, Hackman (2009) contested in his review of POS literature that he did not find any serious attempts to explore the conceptual basis of the POS terms.

These terms were used, to probe how differently named but seemingly similar concepts related to one another theoretically.

The results from this study indicated that the PPI lacked multidimensionality. It was likely to be more valid when viewed as an instrument measuring one factor. The dimensions correlated with job satisfaction, job performance, and affective well-being. The dimensions were however indistinguishable and lacked distinct meaning. This questioned the utility of the concept in its current form. Simply put, an instrument that claimed to measure multiple dimensions was not valid if it lacked independence of the dimensions. Conceptually, there was a need to clarify what was being measured by the PPI. PPI measured of multiple items associated with occupational satisfaction in a given organization, as opposed to an instrument containing multiple distinct dimensions.

Conclusion

The focus of this study was to investigate the factor structure and criterion-related validity of the Positive Practices Instrument. This study, as well as the study by Cameron et al. (2011) found factors that were very highly correlated with each other. This suggested the factors that might be indistinguishable, and the instrument might only contain a single factor. Positive Organizational Scholarship would benefit from future research studies designed to further explore the above-mentioned issues.

The study had certain limitations. The first limitation of the study was that it had a limited range of organizational types and settings. The sample included employees from the financial services industry, community colleges, and fast food restaurants from the same chain. Employees from a different organization in a different country might respond differently to the instrument. Caution should be taken when seeking to generalize the findings of this research study to all organizational types and all settings.

The second limitation of the study was that all data were collected by an instrument that asked respondents to self-report their perceptions. This was regarding positive and virtuous practices, job satisfaction, job performance, and affective well-being. Positive and virtuous interpersonal practices and the meaning and purpose of the work was best captured by asking the employees for their perceptions. Other variables might have been more accurately assessed by other measures. For example, by only asking employee to report their level of job performance, the measure was likely to contain some bias. Asking a manager to provide feedback on an employee's job performance experience might yield different results. This study sample included an underrepresented population of low-wage fast food employees. This was an intriguing area for future POS researchers. In general, more studies should be conducted to explore this segment of individuals. It would be interesting to see how employees from other sectors and countries compared to those included in this study. A research study employing

an ethnographic methodology might gain deeper understanding as to the cultures and climates that were created in these organizations. Another way for future research could be to design a longitudinal study. This would be to assess whether changes in employees' perceptions of positive and virtuous practices over time correlated with changes in job satisfaction, job performance, affective well-being, or other traditional individual and organizational performance outcomes.

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