



A Cultural Value Congruence Approach to Organizational Embeddedness

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Abstract. Drawing on the person–organization fit theory, we investigate how the value congruence between employees' collectivist values and their perception of organizational collectivism influences organizational embeddedness. Based on a survey of 515 working adults, the polynomial regression and response surface analysis results support that embeddedness is highest in the presence of both high individual and organizational collectivism. Additionally, the smaller the discrepancy between the two perceptions, the more embedded the employees. Our study contributes to the cultural perspectives in the organizational embeddedness research by theorizing and measuring the impact of collectivism at the individual level. The findings also contribute to the person–organization fit theory by identifying a value congruence approach to organizational embeddedness.

Keywords: organizational embeddedness, cultural values, organizational collectivism, value congruence

Organizational embeddedness describes a web of contextual and perceptual forces that explain why an employee stays with their current organization; these forces include interpersonal links, fit with the organization, and potential sacrifices (composite model of embeddedness; Mitchell et al., 2001). Unlike the composite model that delineates specific reasons for staying, embeddedness also represents a general attachment model that captures the overall extent to which people feel attached to their organizations (global model of embeddedness; Crossley et al., 2007). Recently, embeddedness researchers have started to emphasize cultural influences on embeddedness as promising theoretical and empirical extensions (Lee et al., 2014; Zhang et al., 2012).

Existing investigations of embeddedness from a cultural perspective, however, typically proxy individual-level cultural determinants with nationality and have demonstrated that embeddedness is sensitive to the influence of national cultures (e.g., Jiang et al., 2012; Ramesh & Gelfand, 2010). Although culture is often assessed at the national level, a significant amount of within-country variance exists at the individual level (Taras et al., 2010; Thomas et al., 2016). For example, regardless of nationality, individuals may find themselves higher or lower on the spectrum of individualism–collectivism (Hofstede, 2001). Previous research has shown that such individual

differences based on collectivism have implications to workplace outcomes, such as organizational commitment and citizenship behavior (e.g., Moorman & Blakely, 1995; Wasti, 2003). Considering that individualist and collectivist values entail contrasting worldviews and behavioral tendencies (Oyserman et al., 2002), we first ask how the variance in individual collectivist values influences the development of organizational embeddedness in this study.

Employees also form perceptions of their organization's cultural characteristics, such as collectivism (Parkes et al., 2001), but existing embeddedness research often overlooks the implications of such perceptions. In this study, based on the person–organization (P–O) fit theory (Kristof-Brown & Guay, 2011), we use an interactionist perspective to predict that the congruence between perceived organizational collectivism and individual collectivism influences the degree of employee embeddedness. This prediction is consistent with those of other P–O fit researchers who have found that the congruence between individual and organizational cultural values, compared with congruence based on other criteria, has a stronger effect on many organizational outcomes, such as organizational commitment and job satisfaction (see Kristof-Brown et al., 2005). Hence, our second research question is, to what

extent does P-O fit based on collectivism influence embeddedness?

We use polynomial regression and response surface analysis (Edwards, 1991) to capture the complexity of the interacting effects of individual and organizational collectivism. For example, this allows us to examine the impact on embeddedness when individual collectivism is deficient of or exceeds organizational collectivism. We find that embeddedness reaches an optimal level when individual collectivism and organizational collectivism are congruent and both high. When there is a discrepancy, a smaller discrepancy between these two perceptions leads to a higher degree of embeddedness.

This study contributes to the organizational embeddedness literature by investigating individuals' cultural values, as opposed to national cultures. First, our study extends embeddedness theory by demonstrating that individual cultural values are valid predictors of embeddedness. Second, by explicating the relationship between embeddedness and value congruence based on individual and organizational collectivism, we contribute to the existing embeddedness literature by showing that both sets of cultural perceptions are important for understanding embeddedness because their effects are multiplicative. Third, our findings indicate that higher embeddedness could also be a result of the congruence between levels of culture, rather than the characteristics of a culture per se. Our study suggests that personnel managers can influence embeddedness by designing organizational culture (Warrick, 2017). Managers should take into consideration the degree of employees' cultural collectivism in deciding whether to encourage a more collectivist (e.g., group-oriented), more individualistic (e.g., competitive) organizational culture, or both.

Organizational Embeddedness: A Global Model

Mitchell et al. (2001) introduced the construct of "organizational embeddedness" to conceptualize the factors that influence an employee's decision to stay in a job. Organizational embeddedness started a new paradigm in voluntary turnover research, and an accumulation of empirical evidence has since supported embeddedness as a theoretically meaningful concept distinctive from other existing job attitude concepts (Crossley et al., 2007; Lee et al., 2014; Mitchell et al., 2001). Organizational embeddedness was originally described as a multidimensional construct, comprising

workplace connections, degree of comfort within work and nonwork environments, and benefits associated with the job (Mitchell et al., 2001). However, the validity of this composite conceptualization of embeddedness has been questioned, and researchers have since developed a unidimensional global embeddedness construct with better measurement properties (Crossley et al., 2007; Zhang et al., 2012). The global embeddedness model captures individuals' judgment of how they are embedded, instead of evaluating specific contextual or perceptual embedding forces. The global model is preferable when the research focus is on the latent construct of embeddedness, whereas the composite model is preferable if the study aims to explore the variances among the components of embeddedness like work and nonwork factors (Zhang et al., 2012). Hence, we use the global conceptualization of organizational embeddedness in this study.

Organizational Embeddedness: A Cultural Perspective

Embeddedness is sensitive to the influence of national cultures (Zhang et al., 2012). For example, Ramesh and Gelfand (2010) found evidence that the effects of embeddedness on turnover can be generalized from an individualistic to a collectivist society (e.g., from the United States to India), but only to a limited extent. Findings in Japan (Peltokorpi, 2013) support that the high level of collectivism in Japanese societies makes individuals see interpersonal ties as a more valuable asset compared with people in Western societies, such that workplace relationship is the most embedding force. In these studies, however, cultural impact on embeddedness was examined based on the variances among national cultures.

As an individual cultural characteristic, individualism and collectivism reflect contrasting worldviews. The core assumption of individualism is that individuals prefer to see themselves as independent of one another, whereas collectivism signifies a preference for interdependence (Oyserman et al., 2002). Hofstede (1980) defined individualism as self-identity based on personal achievements, prioritizing rights over duties, personal autonomy and self-fulfillment over collective interest, and concerns for self and immediate family over collective needs. Collectivists consider membership in strong and cohesive groups, such as family, clan, and ethnicity, as being more important than autonomy or self-fulfillment, and are more inclined to protect their groups (House et al., 2001; Schwartz, 1994).

Plausible consequences of individual collectivism in workplace psychology include self-views, motivation, and work-related attitudes and behaviors. Individualism entails the maintenance of an independent self-view, whereas collectivist values emphasize a harmonious, interdependent self-concept (Markus & Kitayama, 1991). The goals of the in-group are generally more important for collectivists, while individualists prefer to pursue their own goals (Triandis, 1995). Studies consistently demonstrate that collectivists more highly value their relations with coworkers *and* with their organization. As a result, collectivist employees are more likely to engage in extra-role behaviors, such as organizational citizenship behavior (Moorman & Blakely, 1995) and knowledge sharing with coworkers (Arapaci & Baloglu, 2016), and are more trusting of their peers (Huff & Kelley, 2003). Collectivists are also more committed to their organizations when they have satisfying interpersonal relationships at work (Wasti, 2003). The rationale for these observations is that collectivist values motivate group-oriented and relationship-enhancing behaviors (Varela et al., 2010) and predicate social exchanges that deepen interpersonal relationships (Thomas et al., 2016). These findings have been supported through meta-analysis (Taras et al., 2010), but we know little about how individual collectivism influences embeddedness.

In summary, we predict that collectivist employees are more likely to be embedded in their organizations due to their group-oriented self-views, organizational goal prioritization, and motivation to have a close relationship with their organization. Given that individualism–collectivism is conceptualized as a continuum, we predict:

Hypothesis 1: Individual collectivism is positively associated with organizational embeddedness.

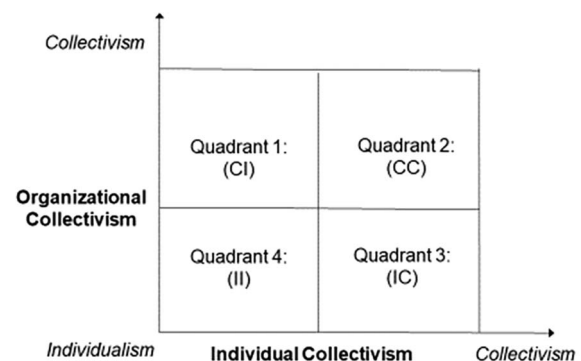
Organizational Embeddedness: A Value Congruence Approach

Although we propose a positive relationship between individual collectivism and embeddedness, we also predict that the strength of this relationship depends on the extent to which the perceived organizational collectivism is congruent with the focal employee's collectivist values. First, collectivists have a strong in-group bias, in that their concern for the group's interest and their loyalty to other group members is limited to what

they consider the in-group (House et al., 2004; Huff & Kelley, 2003). That is, collectivists are more likely to exhibit positive attitudes and behaviors toward their organization when they perceive themselves and their organization to be closely affiliated (i.e., in-group bias), a situation that is more likely to occur when the organization promotes a collectivist culture. As a result, although collectivists may generally exhibit more group-oriented attitudes and behaviors that could increase their embeddedness, this effect is likely to be stronger when they perceive a high level of organizational collectivism. This argument aligns with existing P–O fit findings: When the person and organization elements are both at higher rather than lower levels, P–O fit has more positive employee outcomes, such as job satisfaction and workplace helping behavior (e.g., Jansen & Kristof-Brown, 2005). In Figure 1, such congruence between individual and organizational collectivism is depicted in quadrants 2 (CC) and 4 (II).

Hypothesis 2: When individual and organizational collectivism are congruent, there is a positive relationship between the congruence and organizational embeddedness (i.e., $CC > II$).

Unlike those cases discussed above, employees may experience a discrepancy between their individual values and their assessment of the organization, resulting in a different set of attitudinal and behavioral dynamics (Chatman & Barsade, 1995; Robert & Wasti, 2002). For example, a discrepancy between individual and organizational values results in poorer employee



CI: High Individual Collectivism combined with low Organizational Collectivism; CC: High Individual and Organizational Collectivism; IC: Low Individual Collectivism combined with high Organizational Collectivism; II: Low Individual and Organizational Collectivism.

Figure 1. Hierarchical representations of the value congruence hypotheses.

performance and decreased satisfaction, whereas congruence more often translates into more effectiveness and psychological well-being at work (Diener, 1984). A collectivist organization encourages more group-oriented attitudes and behaviors, and individuals, who score high on the collectivism continuum, would more readily adopt these behaviors than individuals who score low on this continuum. Additionally, organizational embeddedness researchers often explain why employees become embedded using conservation of resources theory (Hobfoll, 1989). A central thesis is that individuals are motivated to acquire and protect resources (e.g., salaries, pensions, and other benefits) during their employment, and this motivation explains why they become embedded in the organization (Kiazad et al., 2015). We argue that when collectivism-based value congruence is present, such congruence constitutes a psychological (as opposed to material) resource that employees are willing to preserve by remaining with the organization. In the absence of congruence, these psychological resources would be less abundant, and thus, embeddedness would be lower. Here, we suggest that congruence between individual and organizational collectivism results in more organizational embeddedness, regardless of the degree of individual and organizational collectivism. Referring to Figure 1, we are comparing quadrants 1 and 3, where individual collectivism either falls short of or exceeds organizational collectivism (discrepancy present), with quadrants 2 and 4, where individual collectivism and organizational collectivism are simultaneously high or low (congruence present). In other words, how the degree of the discrepancy relates to embeddedness:

Hypothesis 3: Organizational embeddedness is higher when individual collectivism and organizational collectivism are congruent compared to when they are discrepant (i.e., $CC, II > CI, IC$).

We also examine how the direction of this discrepancy between individual and organizational collectivism influences embeddedness. At the extremes of the continuum, a discrepancy occurs when an individualistic employee works in a highly collectivist organization or when individual collectivism greatly exceeds the degree of organizational collectivism (quadrants 1 and 3 in Figure 1). Based on these two extreme types of discrepancies, we develop the following arguments for how embeddedness varies with discrepancy directions. When employees believe that their organization endorses collectivist values, they may sense strong normative expectations to think and behave as a collectivist (e.g.,

spending time nurturing high-quality relationships with coworkers, putting organizational goals ahead of their own, or even sacrificing their private time for work). All these expectations are considered cumbersome to individualists (Hofstede, 2001), hence making embeddedness less likely for these individuals. In comparison, as previous studies suggest, when individuals themselves are intrinsically motivated by collectivist concerns, but their organization is not (e.g., endorses individualistic values through rewards for individual performance), collectivists will tolerate such an ill-fitting environment by shifting their focus to personal development. For example, the “cultivation” theme identified by Chuang et al. (2015) suggests that collectivists are more likely to remain embedded in ill-fitting organizations for self-development. In summary, the evidence suggests that embeddedness suffers less when the discrepancy is such that individual collectivism exceeds organizational collectivism than vice versa. Referring to Figure 1, this impact of the discrepancy direction is shown by the comparison between quadrants 1 and 3. In technical terms, this means:

Hypothesis 4: When individual collectivism and organizational collectivism are discrepant, organizational embeddedness is higher when individual collectivism exceeds organizational collectivism, compared to when individual collectivism is deficient of organizational collectivism (i.e., $CI > IC$).

Method

Participants and Procedure

We conducted a self-report survey study on Mechanical Turk and Prolific. We collected data from both US and UK samples (i.e., based on their reported country of residence). Since we employed the forced response format, respondents who did not complete the survey (32 in total) were not included in the final sample. Another nine responses were excluded because of overly short response time or duplicate IP addresses (Aguinis et al., 2019). The final sample size was 515 full-time employees, including 261 from the United States and 254 from the United Kingdom. Among the participants, 46% are male and 54% are female. The majority of the participants (79%) are between 25 and 55 years, with the rest older than 55 or younger than 25. Over half (59%) of the respondents had a bachelor’s degree or higher. The participants are also from a variety of industries, such as

manufacturing and service (but no one particular industry dominates the sample).

To rule out any alternative explanations owing to the potential country difference, we compared the UK and the US samples on the study variables (using one-way multivariate ANOVA), and the results showed that the two samples differed significantly in terms of embeddedness. As a result, we next tested measurement invariance across the US and UK samples using multigroup confirmatory factor analysis (CFA; Byrne et al., 1989; Vandenberg & Lance, 2000). These tests established metric invariance for all three study variables, including embeddedness, individual collectivism, and organizational collectivism (detailed results available upon request). Finally, we also repeated the analysis to test our hypotheses controlling for the dummy-coded country variable (1 = the United States; 2 = the United Kingdom). The results did not differ in any way that altered our interpretation of the findings.

Measures

Organizational Embeddedness

We used the global embeddedness scale by Crossley et al. (2007, 2011) to assess organizational embeddedness. Previous research has shown that the global embeddedness measure has more predictive power than the composite embeddedness measure and offers theoretical, practical, and statistical advantages (Crossley et al., 2007; Zhang et al., 2012). The global embeddedness scale is composed of seven items rated on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*). An example item is “I simply could not leave the organization that I work for.”

Individual Collectivism

Individual collectivism was measured with six items (Dorfman & Howell, 1988) rated on a 7-point agreement/disagreement (1 = *strongly disagree*; 7 = *strongly agree*) scale. An example item is “Group success is more important than individual success.”

Perceived Organizational Collectivism

Given that testing the value congruence hypothesis requires commensurate dimensions (Edwards, 1991; Kristof, 1996), we used the same six items of individual collectivism to measure organizational collectivism perceived by employees (Dorfman et al., 2012). Instead of indicating their personal beliefs as in the measure of individual collectivism, participants reflected on the extent to which the characteristics described in the scale items are similar to the actual characteristics of their organization. The items were rated on a 5-point scale from *very*

uncharacteristic (1) to *very characteristic* (5). We varied the scale format here as a procedural remedy for potential common method bias in addition to counterbalancing the presentation order of our measures (Podsakoff et al., 2003). Additionally, given that we midpoint centered the predictor variables in our analysis (see Shanock et al., 2010), such a scale format variation is not likely to impact our analysis or results.

Control Variables

To avoid alternative explanations for the variance in organizational embeddedness, we controlled for employees' gender, education level attained, organizational tenure, and Positive/Negative Affectivity Scale (PANAS; Thompson, 2007). We controlled for tenure (dummy coded for different ranges of organizational tenure) because the longer employees stay in an organization, the more likely they will feel embedded (Peltokorpi et al., 2015). Next, we controlled for education (dummy variables indicating different levels of education) because people with higher education are more likely to hold positions that may further enmesh them in the organizations (Ng & Feldman, 2011). Similarly, we controlled for gender (dummy coded: 0 = *female* and 1 = *male*) to rule out potential gender differences in terms of the inclination to embed (Mitchell et al., 2001). Finally, we controlled for PANAS to mitigate potential common method bias caused by individuals' affective states (Podsakoff et al., 2003, 2012). We also repeated the analysis of hypothesis testing without these control variables and observed no differences that indicate an alternative interpretation of the findings.

Analytic Strategy

We employed polynomial regression with response surface analysis to assess the value congruence between individual and organizational collectivism and to test our hypotheses (Kristof, 1996). A three-dimensional response surface plot was generated to visually represent the effects of congruence on the outcome. We followed the protocols recommended by Edwards (1991, 2001). A general expression of the relationship is represented in the following equation, where Z represents organizational embeddedness, x represents individual collectivism, and y represents individuals' perception of organizational collectivism:

$$Z = b_0 + b_1x + b_2y + b_3x^2 + b_4xy + b_5y^2 + e \quad (1)$$

This equation allows us to estimate the main effects of each cultural perception (x and y) as well as their

interaction (xy) and the nonlinear effects (x^2 and y^2) on the development of embeddedness. Previous research has shown that this approach overcomes many weaknesses of the earlier methods of testing fit, such as difference scores or traditional moderated multiple regression (see Edwards, 1991; Yang et al., 2008). Specifically, polynomial regression together with response surface analysis uncovers more complex curvilinear relationships and hence a more detailed representation of the overall effects. This method allows us to test for the hypothesized curvilinear relations manifested by employees' cultural values and their perceptions of organizational culture.

We centered the predictors around the midpoint of their respective scales since such centering is required for correctly interpreting effects in this type of analysis (Shanock et al., 2010). Next, following Equation 1, we computed hierarchical multiple regressions wherein the outcome is regressed on control variables in the first step (Model 1), the main effects of individual and organizational collectivism (Model 2) in the second step, and the cross-product of the two sets of cultural values and the square of these variables in the third step (Model 3). Afterward, if the variance explained (R^2) by Model 3 was significant, response surface analysis was used to depict the nonlinear relationships. Since we observed a significant R^2 in Model 3, we created the response surface plot accordingly using the Excel program (see Shanock et al., 2010). We entered the unstandardized beta weights and corresponding standard errors as well as relevant covariance scores for each predictor variable to generate the plot.

To facilitate the interpretation of relevant results, some parameters based on Equation 1 should be examined to determine whether our hypotheses of the linear and curvilinear effects are supported. The slopes of the surface along both $x = y$ and $x = -y$ need to be examined to interpret the congruence between the two predictors, which can be formulated by setting $y = x/-x$ in Equation 1. This results in:

$$\begin{aligned} Z &= b_0 + b_1x + b_2x + b_3x^2 + b_4x^2 + b_5x^2 + e \\ &= b_0 + (b_1 + b_2)x + (b_3 + b_4 + b_5)x^2 + e \end{aligned} \quad (2)$$

$$\begin{aligned} Z &= b_0 + b_1x - b_2x + b_3x^2 - b_4x^2 + b_5x^2 + e \\ &= b_0 + (b_1 - b_2)x + (b_3 - b_4 + b_5)x^2 + e \end{aligned} \quad (3)$$

Our Hypothesis 2 states that when individual and organizational collectivism are congruent and both high, individuals will be more embedded, which will be supported by a significant and positive $b_1 + b_2$ and non-significant $b_3 + b_4 + b_5$ in Equation 2. Similarly, to have our Hypothesis 3 supported, we should observe a negative and significant

$b_3 - b_4 + b_5$, which entails that embeddedness will increase more sharply as the discrepancy between the two cultural perceptions narrows (Equation 3). Finally, our Hypothesis 4 concerns the direction of the discrepancy, which will be supported if we observe a significantly positive $b_1 - b_2$ in Equation 3.

Results

Results of confirmatory factor analyses show sufficient discriminant validity of the three variables in this study: embeddedness, individual collectivism, and organizational collectivism. We evaluated the three-factor model (items were not allowed to correlate) against other potential factor models based on a number of statistical criteria. The results show that the three-factor model ($\chi^2(149) = 761.15, p < .01$; RMSEA = .09; CFI = .88; TLI = .86; SRMR = .07) fits the data better than the one-factor model ($\chi^2(152) = 2,381.19, p < .01$; $\Delta\chi^2(3) = 1,620.04, p < .01$; RMSEA = .17; CFI = .56; TLI = .51; SRMR = .16). It is also better than the two-factor model, in which individual collectivism and organizational collectivism were grouped as one overarching cultural value ($\chi^2(151) = 1,332.95, p < .01$; $\Delta\chi^2(2) = 571.80, p < .01$; RMSEA = .12; CFI = .77; TLI = .74; SRMR = .09).

As is often the case in confirmatory factor analysis, the above fit indices suggest that the hypothesized model fits better than rival specifications, but the model lacks an absolute fit to the data (Kelloway, 1995, 2014). We first examined the model modification indices and allowed some items (within each predictor) to correlate, resulting in improved model fit ($\chi^2(138) = 411.46, p < .01$; RMSEA = .06; CFI = .95; TLI = .93; SRMR = .06). This revised model also provided a base model for the measurement invariance test in this study. We also estimated an additional exploratory structural equation model in which the items were allowed to load across the three factors (Kelloway, 2014; O'Keefe et al., 2012). This also resulted in an adequately fitting model ($\chi^2(117) = 620.69, p < .01$; RMSEA = .09; CFI = .90; TLI = .86; SRMR = .04). In this model, all items loaded significantly ($p < .01$) and substantially on their hypothesized factors, with some items cross-loaded on the other factors (see Table 1 for parameter estimates).

The descriptive statistics, reliability estimates, and correlations for all measures used in this study are reported in Table 2. To test whether individuals see themselves and their organizations differently based on collectivism, we inspected how many participants would be considered to show congruence/discrepancy between the two sets of values. This procedure also shows the base rate of the discrepancies in the sample and in what directions the

Table 1. Standardized parameter estimates for the three-factor model from the exploratory structural equation model

Item	Organizational embeddedness	Individual collectivism	Organizational collectivism
Emb1: <i>I feel attached to this organization.</i>	0.82**	0.08*	-0.06
Emb2: <i>It would be difficult for me to leave this organization.</i>	0.84**	0.04	0.02
Emb3: <i>I'm too caught up in this organization to leave.</i>	0.87**	-0.01	0.03
Emb4: <i>I feel tied to this organization</i>	0.86**	-0.02	0.00
Emb5: <i>I simply could not leave the organization that I work for.</i>	0.81**	-0.04	0.00
Emb6: <i>It would be easy for me to leave this organization.</i> ^(R)	0.51**	-0.08	0.00
Emb7: <i>I am tightly connected to this organization.</i>	0.85**	0.00	0.01
IndCol1: <i>Group welfare is more important than individual rewards.</i>	-0.02	0.82**	-0.02
IndCol2: <i>Group success is more important than individual success.</i>	-0.02	0.84**	-0.02
IndCol3: <i>Being accepted by members of your work group is very important.</i>	0.11*	0.43**	0.03
InCol4: <i>Employees should only pursue their goals after considering the welfare of the group.</i>	0.08	0.52**	0.23**
IndCol5: <i>Managers should encourage group loyalty even if individual goals suffer.</i>	0.01	0.52**	0.22**
IndCol6: <i>Individuals may be expected to give up their goals in order to benefit group success.</i>	-0.02	0.47**	0.25**
OrgCol1: <i>Group welfare is more important than individual rewards.</i>	0.01	0.15**	0.55**
OrgCol2: <i>Group success is more important than individual success.</i>	0.00	0.07	0.59**
OrgCol3: <i>Being accepted by members of your work group is very important.</i>	0.22**	0.11*	0.25**
OrgCol4: <i>Employees should only pursue their goals after considering the welfare of the group.</i>	0.06	-0.02	0.73**
OrgCol5: <i>Managers should encourage group loyalty even if individual goals suffer.</i>	-0.03	0.05	0.78**
OrgCol6: <i>Individuals may be expected to give up their goals in order to benefit group success.</i>	-0.08	-0.03	0.76**

Note. Emb1 to Emb7 = seven items measuring global organizational embeddedness; IndCol1 to IndCol6 = six items measuring individual collectivism; OrgCol1 to OrgCol6 = six items measuring organizational collectivism. Different instructions preceded IndCol and OrgCol items. ^(R) Reversed worded items. Entries in bold show significant and substantial loadings on the corresponding hypothesized factors.

discrepancies go (Shanock et al., 2010). Based on whether the participants had a standardized score on one predictor that is half a standard deviation above or below the

standardized score on the other predictor variable, over half of the sample indicated different configurations of individual and organizational collectivism (see Table 3).

Table 2. Descriptive statistics, reliabilities, and zero-order correlations

	M	SD	1	2	3	4	5	6	7	8
1. Gender	0.46	0.50	—							
2. Education	2.57	1.00	-.12**	—						
3. Organization tenure	1.67	0.92	-.12**	.00	—					
4. Positive affectivity	4.91	0.97	-.15**	.10*	.05	.80				
5. Negative affectivity	2.90	1.36	.06	.04	.03	-.24**	.90			
6. Individual collectivism	4.75	1.04	-.14**	.15**	-.02	.29**	-.04	.82		
7. Organizational collectivism	4.85	1.05	-.12**	.11*	.10*	.21**	.10*	.38**	.81	
8. Organizational embeddedness	4.17	1.49	-.07	.10*	.18**	.30**	-.10*	.27**	.23**	.92

Note. *N* = 515. Gender: 0 = female; 1 = male. Education: 1 = high school or below; 2 = diploma; 3 = bachelors; 4 = masters; 5 = doctorate. Organization tenure: 1 = less than 5 years; 2 = 5–10 years; 3 = 11–15 years; 4 = 16–20 years; 5 = more than 20 years. Bold values on the diagonal indicate coefficients α .

p* < .05; *p* < .01.

Table 3. Frequencies of individual collectivism over, under, and in agreement with organizational collectivism

Agreement groups	Percentage	No. of individuals	Mean: individual collectivism	Mean: organizational collectivism
Ind. more than Org.	28.00	144	0.47	-0.69
In agreement	45.20	233	0.15	0.08
Ind. less than Org.	26.80	138	-0.74	0.58

Note. Ind. more than Org. = individual collectivism higher than organizational collectivism; In agreement = individual collectivism equal to organizational collectivism; Ind. less than Org. = individual collectivism lower than organizational collectivism.

Polynomial Regression and Response Surface Analysis

Table 4 provides the results of polynomial regression analysis for the linear and nonlinear effects of individual and organizational collectivism on embeddedness, and Figure 2 illustrates these results through a response surface plot. Rather than examining the regression coefficients as in the practice of an ordinary least squares analysis, if the R^2 of the model including nonlinear effects (Model 3) is significantly different from zero, the results should be evaluated based on the parameters in the polynomial equation (see Equations 1, 2, and 3) and the response surface plot (Shanock et al., 2010). As shown in

Table 4, the variance in the outcome variable explained by the nonlinear factors (x^2 , y^2 , and xy) is significantly different from zero ($R^2 = .19$, $p < .01$). Hence, we focus on the interpretation of Model 3.

Hypothesis 1 predicts a direct effect from individual collectivism to embeddedness, but the regression results do not support this (see Table 4). After adding nonlinear predictors, the effect of individual collectivism changes from significant ($R^2 = .23$, $p < .01$) to nonsignificant ($R^2 = .06$, $p = ns$); hence, Hypothesis 1 is not supported. For Hypothesis 2, we expect to see a linear (additive) relationship of individual and organizational collectivism as they relate to embeddedness. The results support this, in that the slope along $x = y$, ($b_1 + b_2$) is significant and positive ($R^2 = .30$, $p < .01$), and the curvature on

Table 4. Collectivism-based value congruence as predictor of organizational embeddedness

Variables	Model 1 <i>b</i> (SE)	Model 2 <i>b</i> (SE)	Model 3 <i>b</i> (SE)
Control			
Gender	0.01 (0.13)	-0.06 (0.13)	-0.04 (0.12)
Education	0.10 (0.06)	0.06 (0.06)	0.06 (0.06)
Organizational tenure	0.27 (0.07)**	0.27 (0.07)**	0.25 (0.07)**
Positive affectivity	0.42 (0.07)**	0.31 (0.07)**	0.29 (0.07)**
Negative affectivity	-0.04 (0.05)	-0.06 (0.05)	-0.07 (0.05)
Independent variables			
Individual collectivism (b_1)		0.23 (0.07)**	0.06 (0.08)
Organizational collectivism (b_2)		0.16 (0.06)*	0.24 (0.07)**
Individual collectivism squared (b_3)			0.07 (0.04)
Individual collectivism \times Organizational collectivism (b_4)			0.13 (0.05)*
Organizational collectivism squared (b_5)			-0.13 (0.04)**
R^2	0.12**	0.17**	0.19**
<i>F</i> value	13.91	14.44	11.71
Surface tests			
Slope along $x = y$, $b_1 + b_2$			0.30 (0.10)**
Curvature on $x = y$, $b_3 + b_4 + b_5$			0.05 (0.05)
Slope along $x = -y$, $b_1 - b_2$			-0.17 (0.12)
Curvature on $x = -y$, $b_3 - b_4 + b_5$			-0.08 (0.08)*

Note. $N = 515$. Gender: 0 = female; 1 = male. Education: 1 = high school or below, 2 = diploma; 3 = bachelors; 4 = masters; 5 = doctorate. Organization tenure: 1 = less than 5 years; 2 = 5–10 years; 3 = 11–15 years; 4 = 16–20 years; 5 = more than 20 years. b (SE): unstandardized regression coefficient (standardized error); b_1 to b_5 = parameters in the polynomial regression equations; R^2 = the amount of variance in the dependent variable that is predictable from the independent variable(s) included in that model. * $p < .05$; ** $p < .01$.

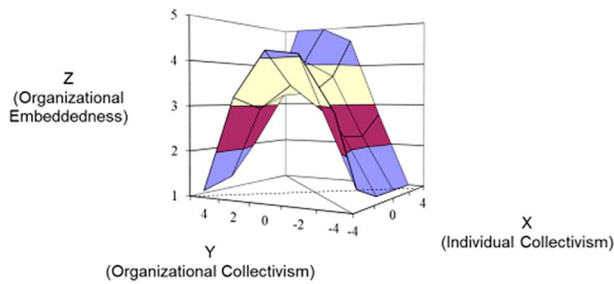


Figure 2. Three-dimensional response surface analyses, collectivism-based value congruence, and organizational embeddedness.

$x = y$, $(b_3 + b_4 + b_5)$ is not significant, indicating such linear relationship. According to Hypothesis 3, embeddedness increases as the discrepancy between individual and organizational collectivism decreases, and this is supported by a significant negative curvature value ($R^2 = -.18$, $p < .05$) on $x = -y$, $(b_3 - b_4 + b_5)$. In other words, embeddedness increases as the two perceptions become more congruent, as opposed to when they are discrepant. Finally, given that Hypothesis 4 focuses on the direction of such discrepancy, we again look at the slope along $x = -y$ as it relates to the outcome. The value of this slope ($b_1 - b_2$) is not significant ($R^2 = -.17$, $p = ns$), suggesting that Hypothesis 4 is not supported. Figure 2 provides a visual illustration of the findings. For example, we can see a positive slope along the $x = y$ line (upward from the front of the graph to the back; the line of the perfect congruence as related to embeddedness), which indicates that embeddedness increases as individual collectivism and organizational collectivism are congruent and both increase from low to high. Along the $x = -y$ line (move away from the center of the graph to either the left or right), we observe a curvilinear relationship (inverted U-shaped), which supports that embeddedness increases as the discrepancy between individual and organizational collectivism becomes smaller.

Discussion and Conclusion

We take a P-O fit approach to investigate how the congruence between individual and organizational collectivism affects organizational embeddedness. Our findings suggest that individual collectivism has predictive power in terms of embeddedness, but this effect is largely obscured by the effects of organizational collectivism as well as their combined effect. When employees find that their personal collectivist or individualistic values are at odds with what their organization stands for, such discrepancy has implications on the extent to which they are embedded: The smaller the discrepancy, the greater the embeddedness.

From the perspective of collectivist employees, the level of organizational collectivism also matters: Embeddedness reaches a peak when individual collectivism and organizational collectivism are congruent and both high.

Implications

Previous research has shown that organizational embeddedness is a viable construct in many cultural contexts, and cultural differences have a significant impact on embeddedness (Ramesh & Gelfand, 2010; Wasti, 2003). Contrary to previous thinking, however, we found that in the presence of perceived organizational collectivism, individual collectivism had a minimal effect on embeddedness. Our findings show that for embeddedness to increase, employees need to perceive that their organization endorses collectivist values similar to their own. Collectivists do not automatically act in a group-conforming way. Instead, they must first perceive membership within the group (House et al., 2004). Experiencing compatible collectivist values facilitates a sense of membership, which in turn contributes to embeddedness. Our findings also contribute to the cultural perspective to embeddedness by revealing that this perspective can go beyond nationalities. Individual and organizational culture may both be similar, on average, to the national culture in which they are situated (Hofstede, 2001). By examining individual collectivism and perceived organizational collectivism directly, however, our study shows that the congruence between individual and organizational cultural characteristics may be more important predictors of embeddedness than national culture, or even individual cultural values, on its own.

Furthermore, the study contributes to the P-O fit research (Edwards, 1991; Kristof-Brown & Guay, 2011). In the case of organizational embeddedness, what matters most is the congruence between P and O and the level of this congruence (both elements being high). In other words, when individuals see themselves as more or less collectivist relative to the degree of collectivism exhibited by their organization, they will not work on changing themselves to fill the gap. Rather, they may become less embedded. Our findings provide more evidence supporting P-O fit theory: When cultural values are the criteria of P-O fit, such fit benefits organizations most when both the person and organization elements are not only congruent but also at a high level.

Given increased cultural diversity in the workforce, greater understanding of how culture-based differences among employees influence embeddedness offers practical implications. If individual collectivism predicts the best overall embeddedness outcomes, it would suggest that personnel managers should concentrate on recruiting

employees based on collectivist values. However, our findings instead suggest that it is the congruence between employee and organizational collectivism that leads to the highest degree of embeddedness. Hence, managers should consider the composition of employees' individual cultural values when developing organizational culture. Additionally, personnel managers should be aware that their effort to infuse collectivist values into organizational culture generally makes employees more embedded. In doing so, managers should make sure the organization's support for collectivist values is visible to employees, for example, by establishing reward systems to encourage teamwork or organizing activities that nurture a sense of belonging. In terms of facilitating embeddedness, the extent to which individuals themselves are collectivist is less important than a collectivist organizational environment. Employees are more likely to see a collectivist organization as an in-group and consequently feel motivated to embed themselves into it.

Limitations and Future Research

Despite its useful implications for theory and practice, this study has potential limitations. Due to the reliance on single-source data, common method bias is a concern. We addressed this by first adopting procedural remedies, for example, collecting data anonymously, and varying scale anchors and response options to create a psychological and proximal separation between the variables in the study (Podsakoff et al., 2012). Next, we performed a series of confirmatory factor analyses that supported the hypothesized three-factor model. More importantly, such a bias is less likely to influence nonlinear relationships (Podsakoff et al., 2012; Siemsen et al., 2010), and a majority of our hypotheses are based on curvilinear effects. However, future research corroborating our findings with variables measured from different sources (e.g., perceived organizational collectivism from both employees and supervisors) would be useful. Another limitation is that we examined only the collectivism dimension. Although individualism–collectivism has gained the status of paradigm in cultural studies, more research examining other cultural dimensions (e.g., power distance and masculinity) is needed so that we have a more complete picture of the role culture plays in organizational embeddedness.

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