

# Expanding the Criterion Domain? A Quantitative Review of the OCB Literature

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The authors investigate the construct validity of the organizational citizenship behavior (OCB)–task performance distinction by providing a quantitative review of the OCB literature. The authors extend previous meta-analytic reviews of the OCB literature by (a) using confirmatory factor analysis (CFA) to investigate the dimensionality of OCB, (b) using CFA to examine the distinction between OCB and task performance, and (c) examining the relationship between a latent OCB factor and task performance and attitudinal variables. Results support a single factor model of OCB that is distinct from, albeit strongly related to, task performance. In addition, results show that OCB consistently relates more strongly to attitudes than does task performance and shares a modest amount of variance with attitudinal correlates beyond task performance.

*Keywords:* organizational citizenship behavior, meta-analysis, job performance, contextual performance

The last two decades of job performance research have seen a marked increase in empirical studies investigating work-related behavior outside the domain of traditional task statements and formal organizational reward systems (frequently referred to as *discretionary work performance*). In a business environment characterized by flattened organizational structures, competition from international economies, and increased employee autonomy and responsibility, the performance of discretionary work behaviors has been deemed essential to effective organizational functioning (Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

Of the multiple conceptualizations of discretionary work performance (e.g., contextual performance, prosocial organizational behavior, extra role behavior), organizational citizenship behavior (OCB; Organ, 1988; Smith, Organ, & Near, 1983) has received the preponderance of research attention (cf. Organ & Ryan, 1995; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff et al., 2000). Although OCB is a relatively recent construct, its conceptualization has seen multiple iterations over the past 20 years. For example, Smith et al. (1983) proposed a two-factor model, Organ (1988) delineated a five-factor model, and still others have operationalized OCB as a unidimensional construct (Allen & Rush, 1998). In addition, although OCB as discretionary work performance is clearly conceptually distinguished from required work performance (i.e., task performance), the empirical differentiation between these two constructs is far less clear. In sum, despite a fair amount of research attention, it appears that questions remain

regarding the dimensionality of the OCB construct as well as its differentiation from task performance.

The purpose of the current article is to extend previous research on the dimensionality of the OCB construct and to examine the extent to which OCB is empirically distinct with respect to task performance. We meta-analytically summarize the existing OCB literature and extend previous reviews by providing a direct test of different models of the OCB construct. We also extend previous meta-analytic reviews by quantitatively summarizing the observed relationship of OCB with task performance as well as examining the pattern of relations between both OCB and task performance and several job-related attitudinal variables.

## Conceptualizations of OCB

Smith, Organ, and Near's (1983) seminal conceptualization of OCB delineated a two-dimension framework including altruism (behavior targeted specifically at helping individuals) and generalized compliance (behavior reflecting compliance with general rules, norms, and expectations). Organ (1988) subsequently proposed an expanded five-dimension model of OCB consisting of altruism (more narrowly defined than by Smith et al.), courtesy, conscientiousness, civic virtue, and sportsmanship. Podsakoff, MacKenzie, Moorman, and Fetter (1990) extended the work of Organ (1988) by developing a measure of OCB that consisted of subscales for each of the five dimensions proposed. The OCB scales developed by Podsakoff et al. (1990) are among the most widely used in the OCB literature. Yet, as noted above, the appropriateness of Organ's five-dimension conceptualization of the OCB construct has been the subject of a considerable amount of attention. L. J. Williams and Anderson (1991), for example, proposed an alternative two-dimensional conceptualization of OCB, suggesting that OCB be viewed in terms of behaviors directed toward individuals (OCB-I) versus those directed toward the organization (OCB-O). Here it is important to note that Williams and Anderson's dimensions were largely based on Organ's (1988) five-dimension taxonomy. Specifically, L. J. Williams and

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Anderson (1991) suggested that Organ's (1988) taxonomy should be reduced such that two of the five dimensions (altruism and courtesy) comprise OCB-I and the remaining three dimensions (conscientiousness, civic virtue, and sportsmanship) comprise OCB-O. Still other researchers have utilized a unidimensional or overall OCB measure in their research (Allen & Rush, 1998; X. P. Chen, Hui, & Sego, 1998; Decktop, Mangel, & Cirka, 1999). In large part, these aggregate OCB applications have taken items from the Smith et al. (1983) or Podsakoff et al. (1990) measures and computed an aggregate score across OCB responses.

LePine, Erez, and Johnson (2002) directly investigated the dimensionality of the OCB construct. Specifically, LePine et al. conducted a meta-analytic review and found that (a) measures of Organ's five OCB dimensions were strongly related (mean  $\rho = .67$ ); (b) measures of the different OCB dimensions did not differentially correlate with various attitudinal measures (i.e., job satisfaction, commitment, etc.); and (c) the different dimensions of OCB did not explain variance beyond an overall measure in any of the attitudinal constructs they examined. On the basis of these findings, LePine et al. suggested that measures of the five dimensions of OCB are best viewed as "equivalent indicators of OCB" and that "scholars begin to explicitly think of Organ's (1988) OCB as a latent construct" (p. 61). One limitation of the LePine et al. review, however, was that they did not explicitly test a model in which OCB is represented as a single latent factor, nor did they examine the relation between an OCB latent factor and related attitudinal measures. Rather, they based their conclusions on a rational examination of the pattern of meta-analytically derived correlations among the OCB dimensions.

### OCB and Task Performance

Relevant to the issue of the dimensionality of the OCB construct is the nature of job performance in general. A wealth of prior research has focused on developing models of job performance (cf. Borman & Brush, 1993; Campbell, McHenry, & Wise, 1990; Hunt, 1996; Komaki, Zlotnick, & Jensen, 1986; K. R. Murphy, 1989; Viswesvaran, 1993). This research suggests that various dimensions of task performance may actually reflect an overall or "general performance" construct. However, this line of research has focused almost exclusively on task-related job performance. In addition, although LePine et al. (2002) and others (e.g., Organ & Ryan, 1995; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff et al., 2000) have provided meta-analytic reviews of the OCB literature, these reviews have not included task performance, nor have they examined the comparative nomological networks surrounding OCB and task performance.

Conway (1999) provided a meta-analytic summary of the relationship between contextual and task performance and found that the two constructs are empirically related, yet distinct. However, although we agree with Conway's contention that "Contextual performance is virtually identical to Organ's (1997) recent conception of organizational citizenship behavior" (p. 3) at a conceptual level, the operationalization of contextual performance is far less consistent than that of OCB. Nearly all measures of OCB focus on some more or less inclusive subset of the five OCB dimensions suggested by Organ (1988). Alternately, no similar operationalization of contextual performance has emerged. Conway's (1999) analysis collapsed 83 different performance dimen-

sion labels into five performance categories. Conway's results reflect relationships among widely divergent operationalizations categorized post hoc with respect to contextual performance. Thus, although Conway (1999) provided some support for the independence of contextual and task performance, it is difficult to draw conclusions regarding the relationship between prespecified measures of OCB and task performance.

Additionally, the meta-analysis by Conway (1999) was based on a relatively small number of studies (14) and did not address the relationship between task and contextual performance and conceptually related variables. Thus, although some supporting evidence was provided for the task and contextual performance distinction, Conway's (1999) study sheds little light on the construct-related validity of the two performance domains in question here. Given the prominence of OCB in recent organizational research, a greater understanding of the dimensionality of OCB measures as well as the discriminability between measures of OCB and task performance is an important research question.

### Nomological Networks of OCB and Task Performance

In addition to the empirical discriminability between OCB and task performance, it is important to consider the pattern of relationships between both OCB and task performance and other work-related variables. More specifically, it has been proposed that research finding weak relationships between work-related attitudes and task performance may be explained by the dependence of task performance on both ability and motivation. In that the performance of discretionary work behaviors typically does not require specific knowledge, skills, and abilities, and is viewed primarily as a motivational phenomenon, it is expected that OCB will be more strongly related to attitudes than will task performance (Bateman & Organ, 1983; Organ & Ryan, 1995). In other words, one tenet of the OCB literature is that measures of OCB will demonstrate stronger relationships with work-related attitudes than will measures of task performance.

In essence, the utility of the OCB-task performance distinction is predicated on OCB representing an expansion or augmentation of the job performance domain and demonstrating a different pattern of relationships with motivational variables than task performance. A meta-analysis by Hertz and Donovan (2000) demonstrated that contrary to widely held expectations, discretionary work behaviors were no more strongly related to the five-factor model of personality than was task performance. In contrast, previous empirical research suggests that OCB and task performance often display a differential pattern of relationships with work attitudes (Moorman, Niehoff, & Organ, 1993; Wayne, Shore, Bommer, & Tetrick, 2002). However, to date, there has been no comprehensive quantitative review exploring the nomological network of both OCB and task performance.

### The Present Study

Our goal is to extend previous research focusing on the construct validity of measures of OCB. Similar to previous reviews (e.g., LePine et al., 2002), we begin by providing a meta-analytic examination of the observed relationships among measures of OCB. In addition, we seek to examine the dimensionality of the OCB construct. Similar to LePine et al. (2002), our focus is on the

framework of OCB forwarded by Organ (1988), as well as other models relevant to this conceptualization (e.g., L. J. Williams & Anderson, 1991). Unlike previous reviews, however, we explicitly test competing models underlying OCB measures by using a meta-analytically derived correlation matrix as input for a confirmatory factor analytic comparison of the different models.

Our second goal is to examine the observed relationship between OCB and task performance and between OCB, task performance, and measures of job satisfaction, organizational commitment, and three dimensions of organizational justice. Toward this end, we expand both our meta-analytic review of the literature and confirmatory factor analytic model tests to include these variables.

### Method

We conducted a search of the OCB literature by using a number of online databases (e.g., Web of Science, PsycINFO) as well as by examining the reference lists of previous reviews. Our search resulted in 361 studies that dealt with OCB. Next, we evaluated each of these studies for inclusion in the meta-analysis. In accordance with our a priori definition of the population and relationships of interest, we established several rules for the inclusion and exclusion of data. First, we excluded studies that did not provide quantitative data (e.g., qualitative reviews and theoretical works). Additionally, we eliminated studies that did not provide a correlation between at least two of the variables of interest or that did not provide a statistic that could be converted into a correlation (e.g., *t*-test results) between the variables of interest. Further, correlations among dimensions of discretionary work behavior that were conceptually dissimilar to the five dimensions of OCB proposed by Organ (1988) were excluded. Finally, we chose to limit our data to data based on explicit measures of the construct of interest. That is, we included only measures that explicitly assessed one or more dimension(s) of OCB, task performance, or the attitudinal variables. It is worthwhile to note that for a study to be included, it did not have to report the correlation among all variables of interest. We excluded ratings of "overall job performance" or objective measures that might reflect both OCB and task components of job performance. On the basis of these criteria, we identified 112 studies reporting 1,111 independent correlations with a total sample size of 41,650 for inclusion in the meta-analysis. Of the studies included, 70 (62.5%) were published and 42 (37.5%) were unpublished manuscripts or dissertations.<sup>1</sup>

Each of the studies was coded with respect to the dimension of OCB (altruism, courtesy, civic virtue, conscientiousness, and sportsmanship), task performance, organizational commitment, job satisfaction, and organizational justice (procedural justice, distributive justice, and interactional justice). Each study was coded by at least two individuals. Comparison across coders indicated a high level of initial agreement (i.e., 90%). Any discrepancies were resolved through a consensus discussion.

One specific difficulty emerged when coding the OCB dimensions. Specifically, previous research has incorporated a variety of conceptualizations and measures of OCB. For example, for the purposes of the current study, it would have been inappropriate to include a measure of altruism based on Smith et al.'s (1983) original framework because at the time, altruism was a much broader construct than present day conceptualizations of altruism. When the full set of items was not available in the study, we

attempted to contact the authors to obtain a copy of the full scale. Then, we reviewed the item content of each scale to ensure that it adequately captured the construct space of the OCB dimension in question and was not contaminated (i.e., by tapping multiple dimensions). For example, Moorman and Blakely's (1995) scale is commonly used as a measure in the OCB literature, yet this scale is not directly based on Organ's (1988) conceptualization. However, an examination of the items of the scale reveals that two of the dimensions, "helping behavior" and "loyal boosterism," are essentially parallel to Organ's (1988) conceptualization of altruism and civic virtue. Consequently, data incorporating Moorman and Blakely's helping behavior subscale as a dimension of OCB was included as a measure of altruism, and loyal boosterism was included as a measure of civic virtue.

Once all of the study data were coded we used Arthur, Bennett, and Huffcutt's (2001) SAS 9.1 PROC MEANS program to analyze the data. This approach follows the meta-analysis procedure recommended by Hunter and Schmidt (1990). This analysis was used to generate an  $11 \times 11$  matrix containing population correlation estimates among each of the five OCB dimensions, task performance, and the five attitude variables. Typically, meta-analysis includes corrections for multiple artifacts such as sampling error and unreliability. Although we did correct correlations for sampling error (i.e., sample size weighting) in our meta-analysis, we did not correct for unreliability. Rather, correction for unreliability was addressed in the subsequent confirmatory factor analyses (CFAs; described below). As recommended by Viswesvaran and Ones (1995), we used the harmonic mean (3,052) of the sample sizes for the individual mean correlations as the sample size for the CFA.

### Results

#### *Meta-Analysis*

The sample-size-weighted mean intercorrelations and standard errors are presented in Table 1. The total sample size (*N*), number of samples (*K*), and the average sample size per correlation are presented in Table 2. Reliability estimates for each of the non-OCB variables are also presented in Table 1. These values were collected as part of the meta-analysis and represent the mean reliability for each variable across all studies reporting reliability information (i.e., we generated the typical meta-analytic artifact distribution).

Given that the correlations in the overall matrix were combined across independent data sets, the appropriateness of using these aggregated values as the basis for subsequent factor analyses is a potential concern (Cheung & Chan, 2005; Viswesvaran & Ones,

<sup>1</sup> A subgroup analysis was conducted to test for differences between published and unpublished studies (i.e., dissertations). We generated two full ( $11 \times 11$ ) correlation matrices, one for the published studies and another for the unpublished studies. We then used a LISREL multiple-groups analysis to evaluate whether the two matrices could be equated. Results of this analysis indicate that constraining the two matrices to be equal provides an adequate representation of the data, that is,  $\chi^2(55, N = 3,052) = 365.18, p > .05, ECVI = .17, RMSEA = .055, NNFI = .98, CFI = .99$ . Accordingly, we determined that there was no significant difference between published and unpublished studies.

Table 1  
*Meta-Analytic Intercorrelations (and 95% Confidence Intervals) Among Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Altruism 95% confidence interval	—										
2. Civic virtue 95% confidence interval	.53 ± .059	—									
3. Conscientiousness 95% confidence interval	.61 ± .039	.51 ± .039	—								
4. Courtesy 95% confidence interval	.66 ± .039	.49 ± .039	.59 ± .039	—							
5. Sportsmanship 95% confidence interval	.46 ± .059	.36 ± .039	.46 ± .039	.55 ± .039	—						
6. Task performance 95% confidence interval	.56 ± .059	.53 ± .039	.60 ± .078	.50 ± .078	.49 ± .039	.86					
7. Satisfaction 95% confidence interval	.19 ± .039	.19 ± .039	.21 ± .039	.21 ± .020	.23 ± .039	.17 ± .039	.86				
8. Commitment 95% confidence interval	.16 ± .059	.21 ± .078	.15 ± .039	.14 ± .020	.17 ± .039	.11 ± .039	.47 ± .059	.88			
9. Distributive justice 95% confidence interval	.10 ± .039	.09 ± .059	.10 ± .039	.13 ± .039	.17 ± .059	.14 ± .059	.54 ± .118	.25 ± .137	.87		
10. Interactional justice 95% confidence interval	.14 ± .078	.18 ± .059	.18 ± .078	.23 ± .078	.24 ± .078	.18 ± .078	.54 ± .059	.45 ± .098	.54 ± .039	.91	
11. Procedural justice 95% confidence interval	.19 ± .039	.16 ± .059	.19 ± .039	.23 ± .059	.26 ± .039	.15 ± .059	.50 ± .039	.43 ± .059	.48 ± .098	.58 ± .078	.89

*Note.* Values on the diagonal represent the mean (across studies) coefficient alpha reliability estimate for these variables. Confidence intervals (which represent the variance in the correlations after correcting for artifacts over and above sampling error) were not calculated, as no artifact corrections were applied.

Table 2  
Total Sample Size, Mean (SD) Sample Size, and Number of Studies (K) on Which Correlations Are Based

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Altruism											
N	—										
M (SD)											
K											
2. Civic virtue											
N	10,909	—									
M (SD)	253 (268)										
K	43										
3. Conscientiousness											
N	10,647	10,091	—								
M (SD)	242 (263)	246 (272)									
K	44	41									
4. Courtesy											
N	9,247	8,462	9,135	—							
M (SD)	257 (290)	242 (267)	254 (289)								
K	36	35	36								
5. Sportsmanship											
N	9,468	12,597	9,096	9,450	—						
M (SD)	256 (286)	293 (311)	253 (290)	263 (291)							
K	37	43	36	36							
6. Task performance											
N	4,831	6,688	4,958	4,197	6,134	—					
M (SD)	345 (385)	446 (425)	381 (396)	420 (436)	511 (455)						
K	14	15	13	10	12						
7. Satisfaction											
N	7,031	6,705	7,487	5,808	5,510	9,001	—				
M (SD)	334 (349)	335 (357)	323 (333)	387 (402)	324 (347)	333 (307)					
K	21	20	23	15	17	27					
8. Commitment											
N	8,309	6,512	8,289	5,358	5,822	12,016	16,081	—			
M (SD)	277 (270)	283 (308)	276 (270)	315 (354)	323 (342)	227 (237)	273 (226)				
K	30	23	30	17	18	53	59				
9. Distributive justice											
N	2,526	2,632	2,642	1,932	2,038	2,554	2,393	2,012	—		
M (SD)	180 (86)	175 (85)	189 (114)	161 (42)	157 (44)	284 (149)	263 (102)	183 (53)			
K	14	15	14	12	13	9	9	11			
10. Interactional justice											
N	1,649	1,649	1,203	1,055	1,055	1,108	1,758	751	2,584	—	
M (SD)	206 (107)	206 (107)	172 (50)	176 (54)	176 (53)	221 (96)	251 (77)	188 (79)	215 (106)		
K	8	8	7	6	6	5	7	4	12		
11. Procedural justice											
N	2,766	2,759	2,882	2,059	3,153	3,157	3,240	2,459	4,949	3,794	—
M (SD)	184 (112)	184 (111)	192 (132)	172 (94)	225 (237)	287 (144)	270 (109)	176 (100)	225 (129)	223 (122)	
K	15	15	15	12	14	11	12	14	22	17	

1995). Consequently, we examined the variability of the correlations that were aggregated within each cell of the 11 × 11 matrix relative to the total variability across all correlations. Use of the aggregated values is appropriate only if the within-cell variance is (a) small in absolute terms and (b) small relative to the between cell variance. In essence, this would be consistent with a similar pattern of relationships among the various constructs across studies. To test this, we examined the mean within-cell variance (i.e., average variance across correlations contributing to each cell of the matrix) relative to the total variance across all of the correlations. The variance across all of the correlations was .064, whereas the mean within-cell variance was .014, indicating that the (a) the within-cell variance itself is quite small and (b) the within-cell variance is small relative to the between-cell variance (i.e., reduces the overall variability by approximately 80%). Thus, we used the meta-analytic correlation matrix presented in Table 1 as input for the subsequent CFA.

**CFA**s

To assess the dimensionality of OCB, we sequentially evaluated the fit of several competing models of OCB and task performance dimensionality with the meta-analytically derived correlation matrix using a confirmatory factor analytic application of LISREL 8.70 (Jöreskog & Sörbom, 2004).

We first evaluated the fit of the general measurement model presented in Figure 1. In this model, two latent variables were operationalized to correspond to L. J. Williams and Anderson’s (1991) two-factor conceptualization of OCB such that the OCB dimensions altruism and courtesy served as manifest indicators of an OCB-I factor and the OCB dimensions conscientiousness, civic virtue, and sportsmanship served as manifest indicators of OCB-O. Six additional latent variables were included corresponding to task performance, job satisfaction, organizational commitment, distributive justice, interactional justice, and procedural justice. Each of these variables was defined with a single manifest indicator.

As noted above, we chose not to correct the summary correlations for unreliability as part of the meta-analysis. Rather, we incorporated reliability corrections in the CFA measurement model. Specifically, for the two OCB latent variables with multiple indicators, the CFA includes estimates of correlations among factors corrected for unreliability in the manifest variables (i.e., correction for measurement error is implicitly conducted as part of the CFA). For those factors with only one manifest indicator, however, we constrained the factor loading of the indicator on the factor to be equal to the square root of the reliability and the error term to be 1 minus the square root of the reliability. Thus, all correlation estimates among the latent factors in the measurement model (i.e., the phi matrix) represent relationships among factors corrected for unreliability.

As mentioned previously, the harmonic mean sample size ( $N = 3,052$ ) was used in all model testing. Examination of the overall fit indices indicates that the correlated eight-factor measurement model presented in Figure 1 provides a good fit to the data,  $\chi^2(22) = 258.65, p < .05$ , root-mean-square error of approximation (RMSEA) = .059, expected cross-validation index (ECVI) = .11, nonnormed fit index (NNFI) = .98, comparative fit index (CFI) = .99, and supports the hypothesized three-factor conceptualization of OCB (OCB-I and OCB-O) and task performance.

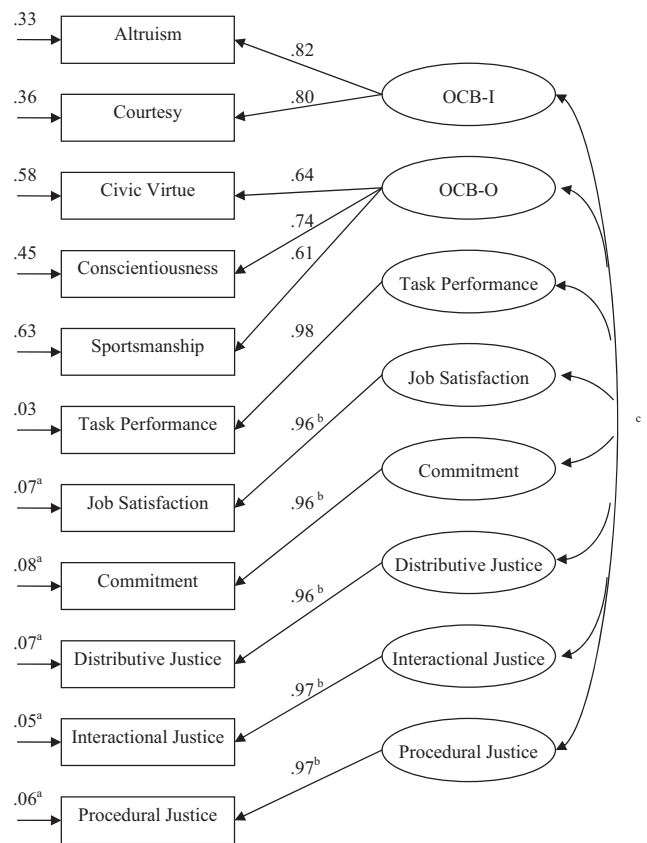


Figure 1. Structural model of the relationships among organizational citizenship behavior (OCB) dimensions, task performance, and work attitudes. <sup>a</sup>Error loadings on work attitudes were fixed as 1 minus the square root of the reliability of its corresponding factor loading. <sup>b</sup>Factor loadings of work attitudes were fixed to the values of the square root of their reliabilities. <sup>c</sup>Factor intercorrelation parameter estimates are presented in Table 3. OCB-I = OCB directed toward individuals. OCB-O = OCB directed toward the organization.

However, the estimated correlation between the two latent OCB factors is .98, indicating little if any empirical differentiation between the two factors. Consequently, we evaluated a modified version of the measurement model (Model 2) in which the correlation between the two latent OCB factors was constrained to equal 1. In essence, Model 2 represents a one-factor model of OCB and corresponds to LePine et al.’s (2002) contention that all five of the OCB dimensions represent a single OCB construct. Examination of the fit indices for Model 2,  $\chi^2(23) = 258.84, p < .05$ , RMSEA = .058, ECVI = .11, NNFI = .98, CFI = .99, indicates that the added constraint does not result in a significant reduction in fit from Model 1,  $\Delta\chi^2(1) = .19, p > .05$ . This supports a single-factor model of OCB as the best representation of the relationship among the OCB dimensions. Examination of estimated factor intercorrelations (i.e., the phi matrix as presented in Table 3) for the modified model indicates a relatively high correlation between OCB and task performance ( $r = .74$ ). Consequently, we further modified the model to constrain the correlation between OCB and task performance to be equal to 1 (Model 3). Examination of the fit indices for Model 3, however, indicates that

Table 3  
Confirmatory Factor Analysis-Based Factor Intercorrelations

Variable	1	2	3	4	5	6	7	8
1. OCB-I	—							
2. OCB-O	1.0 <sup>a</sup>	—						
3. Task performance	.74 <sub>b</sub>	.74 <sub>b</sub>	—					
4. Satisfaction	.28 <sub>c</sub>	.28 <sub>c</sub>	.18	—				
5. Commitment	.23 <sub>d</sub>	.23 <sub>d</sub>	.13	.51	—			
6. Distributive justice	.16 <sub>e</sub>	.16 <sub>e</sub>	.15	.58	.32	—		
7. Interactional justice	.26 <sub>f</sub>	.26 <sub>f</sub>	.19	.57	.48	.57	—	
8. Procedural justice	.29 <sub>g</sub>	.29 <sub>g</sub>	.16	.53	.46	.51	.61	—

Note. Similarly subscripted parameters were constrained to be equal in model evaluation. OCB = organizational citizenship behavior. OCB-I = OCB directed toward individuals. OCB-O = OCB directed toward the organization.

<sup>a</sup> Parameter fixed to 1 in the model evaluation.

this model did not fit the data well,  $\chi^2(25) = 568.05$ ,  $p > .05$ , RMSEA = .084, ECVI = .21, NNFI = .94, CFI = .97, and resulted in a significant reduction in fit relative to both Model 1,  $\Delta\chi^2(3) = 309.40$ ,  $p > .05$ , and Model 2,  $\Delta\chi^2(2) = 309.21$ ,  $p > .05$ . This pattern of results suggests that OCB is best viewed as a single factor and is empirically distinguishable from task performance.

We next sought to examine the relationship between the attitudinal variables and OCB and task performance. Examination of the correlations presented in Table 3 indicates that although OCB and task performance are relatively highly correlated, the attitude variables demonstrate consistently stronger correlations with OCB than with task performance (mean correlations were .24 and .16, respectively). We also used the correlations presented in Table 3 as input into a series of regression analyses. We regressed both OCB and task performance on all of the 5 attitudinal variables. Results of the regression analyses (presented in Table 4) indicate that collectively the attitudinal variables account for approximately 12% of the variance in OCB and 4.5% of the variance in task performance. However, in order to estimate the extent to which the attitudinal variables explain unique variance in OCB beyond that shared with task performance, we conducted a set of hierarchical regression analyses in which OCB was regressed first on task

performance and then on both task performance and the attitudinal variables. Results (also presented in Table 4) indicate that after controlling for the variance shared with task performance, the attitudinal variables account for 4.2% of the unique variance in OCB. Alternately, when task performance was first regressed on OCB and then on both OCB and the attitudinal variables, less than 1% unique variance is accounted for in task performance by attitudes over that shared with OCB.

## Discussion

Our study sought to investigate the construct validity of the OCB–task performance distinction by providing a quantitative review of the OCB literature. We extended previous meta-analytic reviews of the OCB literature by (a) using CFA to investigate the dimensionality of OCB, (b) using CFA to examine the distinction between OCB and task performance, and (c) examining the relationship between a latent OCB factor and task performance and attitudinal variables. The results support a single factor model of OCB that is distinct, albeit strongly related, with task performance. In addition, results show that OCB consistently relates more strongly to attitudes than does task performance and shares a

Table 4  
Regression Results

Predictor	Criteria					
	1. Task	2. OCB	3a. OCB	3b. OCB	4a. Task	4b. Task
Task performance	—	—	.74*	.70*	—	—
OCB	—	—	—	—	.74*	.76*
Job satisfaction	.09*	.16*	—	.11*	—	.04
Commitment	.01	.06*	—	.04	—	.03
Distributive justice	.02	.09*	—	.10*	—	.09
Interactional justice	.10*	.09*	—	.16*	—	.04
Procedural justice	.03	.16*	—	.14*	—	.09
Multiple $R^2$	.045	.120	.55	.59	.55	.56
$\Delta R^2$	—	—	—	.042	—	.01

Note. Analysis 1: Task performance was regressed on the full set of attitudinal variables. Analysis 2: Organizational citizenship behavior (OCB) was regressed on the full set of attitudinal variables. Analysis 3: OCB was regressed first on task performance (3a) and then task performance plus the full set of attitudinal variables (3b). Analysis 4: Task performance was regressed first on OCB (4a) and then OCB plus the full set of attitudinal variables (4b). OCB-I = OCB directed toward individuals. OCB-O = OCB directed toward the organization.

\*  $p < .05$ .

modest amount of variance with attitudinal correlates beyond task performance.

This study answers the call to investigate OCB with a latent construct methodology (LePine et al., 2002). The latent construct approach may be contrasted with the aggregate approach, which is typically used in the OCB literature. In contrast to the aggregate approach, which entails averaging items taken from multidimensional OCB scales to form an overall OCB measure, the latent construct methodology involves treating existing OCB dimensions as imperfect indicators of a single construct. Examining OCB from this perspective allows for estimation of the relationship between the communality among OCB dimensions and other variables, such as attitudes. Thus, this approach represents a more accurate estimate of the relationship between OCB and other variables.

This study has several implications for our understanding of OCB. We reinforce previous findings that current operationalizations of OCB are best viewed as indicators of a general OCB factor. As such, there is likely little to be gained through the use of separate dimensional measures as opposed to an overall composite measure. In addition, our findings present somewhat of a mixed picture with respect to the OCB construct. On the one hand, we found that OCB is both empirically distinguishable from measures of task performance and, as expected, more strongly related to work-related attitudinal measures. On the other hand, we found that although OCB and task performance are best viewed as distinct factors, these factors are highly correlated (i.e.,  $\rho = .74$ ). Consequently, although the covariation between OCB and the attitudinal variables is over twice that of the covariation between task performance and the attitudinal variables, differences in the relationship between work-related attitudinal measures and OCB and work-related attitudes and task performance are relatively small (i.e., multiple  $R^2$ 's of .120 and .045, respectively).

Certainly an important question for future research is whether the observed covariance between OCB and task performance is "real." That is, does the correlation between OCB and task performance primarily reflect a true or an illusory halo? It is possible that employees who are high-task performers are also high with respect to OCB; thus, the correlation would reflect true halo. Alternatively, the correlation between task performance and OCB may be the result of raters' inability to distinguish between OCB and task performance, thus the correlation would reflect illusory halo. Similarly, many raters may consider OCB a necessary part of effective task performance and, as a result, may knowingly incorporate aspects of OCB when rating targets' task performance (Borman, White, & Dorsey, 1995; MacKenzie, Podsakoff, & Fetter, 1991; Motowidlo & Van Scotter, 1994; Podsakoff & MacKenzie, 1994).

Along these lines, previous research has demonstrated that frame of reference (FOR) training is an effective method of reducing halo and results in more accurate ratings of performance (Woehr & Huffcutt, 1994). We were able to locate only one study that has incorporated FOR training prior to raters assessing OCB and task performance. In a laboratory setting, Sulsky, Skarlicki and Keown (2002) demonstrated that raters who received FOR training prior to making ratings made more accurate ratings than untrained raters. In other words, the results of their study indicated that trained raters are better able to distinguish OCB from task performance than are untrained raters. Importantly, Sulsky and his colleagues used an overall measure of OCB. Thus, the results of their

study do not speak to the extent to which FOR training increases the discrimination among the dimensions of OCB. In addition, we were unable to locate any field studies that incorporated FOR training when assessing OCB and task performance. Thus, one important avenue for future research is to investigate whether existing approaches of improving the quality of performance ratings (e.g., FOR training) also result in increased discrimination between measures of task performance and OCB in field settings and increased discrimination among the dimensions of OCB.

As with any study there are several caveats and limitations that should be noted. First, it is important to note that the primary focus of this study was OCB. Accordingly, we restricted our literature search to studies that assessed OCB. A subset of these studies also assessed task performance and thus served as the basis for our estimates of the OCB–task performance and task performance–attitude relations. Certainly many, many more studies that assessed task performance–attitude relations without assessing OCB were not included in our analysis. This leads to the question of how generalizable our results are with respect to the larger task performance literature. One indication that our results are representative is the fact that our findings are commensurate with previous meta-analyses that have examined the relationship between task performance and job satisfaction (Iaffaldano & Munchinsky, 1985), organizational commitment (LePine et al., 2002), and organizational justice (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Thus, although many studies examining task performance–attitude relationships were excluded, this decision did not appear to impact our results.

It is also important to emphasize that the theoretical meaningfulness of our CFA-based parameter estimates is predicated on the appropriateness of our meta-analytically aggregated correlation matrix. This approach assumes that the pattern of correlations among the OCB dimensions, task performance, and the attitudinal measures in the aggregate correlation matrix is a meaningful representation of the individual correlation matrices contributing to the aggregate. We believe that the pattern of variability among the primary correlations (i.e., small within category variance relative to across cell variance) supports this assumption. Nonetheless, this is a potential point of concern with respect to our approach.

Further, we found far fewer studies examining the relationship between task performance and OCB than the number of studies examining the intercorrelations among the dimensions of OCB. Specifically, whereas the sample-weighted correlations among the dimensions of OCB were each based on approximately 40 samples, the correlations among the dimensions of OCB and task performance were based on approximately 12 samples. Thus, additional research might be directed toward examining the pattern of relationships between OCB and task performance as well as potential moderators of this relationship. For example, none of the studies located for this meta-analysis examined both OCB and task performance with a multidimensional conceptualization of task performance. Thus, future research should investigate the extent to which the relationship between task performance ratings and ratings of OCB is moderated by particular dimensions of task performance.

Finally, it is important to note that we found only five studies in which ratings of both OCB and task performance were not provided by the same source. Thus, it is likely that the correlation

between OCB and task performance reflects to some extent common method variance. Given the small number of studies incorporating different sources we were not able to directly compare a matrix based on same source ratings with one based on different source ratings (i.e., we were not able to provide meta-analytic estimates for the different source studies and thus we were unable to directly compare correlations based on different source ratings and same source ratings). However, the pattern of results did not change when the subset of different source studies was excluded from the full data set. Still, future research might examine the extent to which the commonality between traditional measures of OCB and task performance reflects common method variance.

### Summary and Conclusions

We extended previous meta-analytic reviews of the OCB literature by using CFA to investigate the dimensionality of OCB and by examining the relationship between a latent OCB factor and task performance as well as work-related attitudinal variables. Our results support a single factor model of OCB that is distinct from, albeit strongly related to, task performance. Moreover, OCB and task performances' differential relationships with attitudinal constructs and OCB's consistent explanation of significant variance in attitudinal correlates beyond task performance underscores the importance of considering OCB when assessing job performance. Despite these relatively positive findings, the overlap between OCB and attitudes is still quite small. It is our hope that this meta-analysis will stimulate awareness of issues with current procedures of assessing OCB as well as research on methods to enhance the construct validity of the work performance domain.

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