

# Performance Differences Among Four Organizational Commitment Profiles

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The authors drew from prior research on organizational commitment and from configural organizational theory to propose a framework of affective and continuance commitment profiles. Using cluster analyses, the authors obtained evidence for 4 of these profiles in an energy industry sample ( $N = 970$ ) and a sample of 345 employed college students. The authors labeled the clusters: allied (i.e., moderate affective and continuance commitment), free agents (moderate continuance commitment and low affective commitment), devoted (high affective and continuance commitment), and complacent (moderate affective and low continuance commitment). Using a subset of the employed student sample ( $n = 148$ ), the authors also found that the free agents received significantly poorer supervisor ratings of performance, organizational citizenship behavior, and antisocial behavior than any other group.

*Keywords:* organizational commitment, employee attitudes, organizational citizenship, behavior, contextual performance, job performance

The effects of the changing nature of work on relationships between employees and their organizations are well documented (cf. Howard, 1995). Most companies recognize the need to proactively respond to these changes. To assist them, researchers have heavily studied person–organization attachments, with commitment being perhaps the most commonly investigated construct in this literature. Meyer and Allen (e.g., Allen & Meyer, 1990; Meyer & Allen, 1997) developed a widely accepted commitment framework in which people develop affective, continuance, and normative commitments conceptualized such that employees may form strong attachments on none, some, or all three dimensions. Research on this model grows each year, and a substantial body of scholarship supports the construct validity of their measures (Allen & Meyer, 1990, 1996; Cohen, 1996; Meyer, Allen, & Gellatly, 1990).

Our study focused on affective and continuance commitment. Affective commitment (AC) concerns employees' emotional attachments to their organizations. Employees with strong AC believe their values match those of their employer and feel emotion-

ally attached to and identify with their company. AC effects are often explained in a social exchange framework, such that employees exchange good treatment by the firm (e.g., trust, safe conditions, fair compensation) for their affective attachments; these stronger attachments result in more favorable job performance (e.g., Riketta, 2002; Shore & Wayne, 1993).

Continuance commitment (CC) refers to perceptions that the costs of leaving the organization exceed the costs of remaining. H. S. Becker (1960) originally proposed that people engage in consistent lines of behavior because of the inducements (side bets) to do so. Employers offer a variety of such inducements to retain employees, including job status, seniority, and benefits. Further, employees often desire to avoid the social and economic costs of leaving (e.g., relocation costs, disrupted social networks). CC strengthens as these side bets accumulate, rendering employees more likely to stay with the organization. Higher CC often is assumed to be undesirable, because studies frequently show that it is negatively or unrelated to job performance and citizenship behavior (Meyer, Stanley, Herscovitch, & Topolnysky, 2002; Organ & Ryan, 1995).

Despite calls for investigations of the mutual effects of different bases of commitment (e.g., Cohen, 2003; Meyer & Allen, 1997), surprisingly few researchers have responded. Although meta-analyses have established that the correlation between AC and CC is near zero (e.g., Meyer et al., 2002), consideration of the psychological mechanisms influencing AC and CC suggests the possibility of mutual or synergistic effects of AC and CC. For instance, H. S. Becker's (1960) depiction of the side bets involved in CC emphasized that people engage in self-interested behavior. Because social exchange influences, such as good treatment by one's supervisor, are desirable (i.e., in one's self-interest), they may become side bets employees must forfeit to leave their jobs. Further, Meyer et al. (1990) suggested that employees adjust their standards for acceptable alternatives as they adapt to their organizational roles. Thus, as employees' affective attachments strengthen, their standards for evaluating CC may change.

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Similarly, inducements to remain are a central influence on CC (Meyer & Allen, 1997). Many inducements, such as benefits, also influence social exchange processes, thereby contributing to AC (Sinclair, Hannigan, & Tetrick, 1995). Similarly, when companies fail to address poor working conditions (e.g., safety issues, abusive supervision), workers are more likely to judge the costs of staying with the firm as exceeding the costs of leaving. Together, these examples suggest the possibility of synergistic effects of multiple bases of commitment.

### A Configural Approach to the Study of Organizational Commitment

Researchers interested in synergistic effects of constructs typically test statistical interactions of their measures. This approach can be termed a *variable-centered* approach because it focuses on identifying differences in relationships between variables (cf. Craig & Smith, 2000). In this article, we describe a *person-centered* (or configural) approach to commitment research, which we hope will generate new theoretical perspectives on commitment constructs. The person-centered approach focuses on identifying groups that share similarities on a set of constructs (Craig & Smith, 2000). Others refer to such groups as profiles or configurations (Miller & Friesen, 1984). An important defining feature of configurations is internal cohesion, such that the presence of certain attributes suggests the reliable occurrence of others (e.g., most small organizations have flat management structures).

Although organizational theorists have heavily used configural approaches (cf. Delery & Doty, 1996), such research is rare in studies of employees' attitudes or behavior. However, configural thinking suggests interesting possibilities for AC–CC research. For example, some configural theorists adhere to the principle of equifinality, which implies there may be multiple ways to reach goals such as effective performance (Katz & Kahn, 1978). An equifinal perspective on commitment suggests there may be multiple AC–CC profiles associated with high (or low) job performance. This approach contrasts with the assumption that there is a single optimal combination of any set of variables under investigation for each criterion of interest.

Although configural research is rare in industrial psychology, the profile approach has gained a foothold in the commitment literature. Past literature has investigated profiles of commitment to various constituencies, including work teams, unions, and supervisors (e.g., T. E. Becker, 1992; T. E. Becker & Billings, 1993; Magenau, Martin, & Peterson, 1988) as well as profiles of organizational and career-focused commitment (e.g., Carson, Carson, Roe, Birkenmeier, & Phillips, 1999; Somers & Birnbaum, 2000). Other studies have investigated AC–CC interactions in the prediction of performance (Meyer & Allen, 1984; Meyer, Pounonen, Gellatly, Goffin, & Jackson, 1989) and turnover-related outcomes (e.g., Jaros, 1997; Somers, 1995), albeit with mixed success. However, only a single study by Herscovitch and Meyer (2002) directly tested differences between profiles of commitment (to organizational change). Thus, although the profile approach has gained momentum, no studies have investigated AC–CC profiles of commitment to the global organization.

Table 1 shows a set of nine hypothetical profiles of global AC and CC. The framework reflects two assumptions about the relationships among different forms of commitment. First, past theoretical derivations of commitment profiles (e.g., Meyer & Hersco-

Table 1  
*Hypothetical Profiles of Affective and Continuance Organizational Commitment*

| Affective commitment | Continuance commitment |             |             |
|----------------------|------------------------|-------------|-------------|
|                      | Strong                 | Moderate    | Weak        |
| Strong               | Devoted                | Involved    | Attached    |
| Moderate             | Invested               | Allied      | Complacent  |
| Weak                 | Trapped                | Free agents | Uncommitted |

vitch, 2001) and empirical research (e.g., Herscovitch & Meyer, 2002) focused on high- and low-commitment groups. In contrast, we assume that it is important to distinguish moderate AC and CC from either extreme, because many employees are neither completely alienated from nor unequivocally devoted to their companies. Second, AC and CC are influenced by different psychological mechanisms. Meyer and Allen (1997) concluded that supportiveness, fairness, personal importance, and personal competence exert the strongest influence on AC. In contrast, research on CC focuses on side bets, such as employees' transferability of skills, financial costs of leaving the job, and perceived employment opportunities. Employees are assumed to fall into different AC–CC profiles because of the influence of these psychological mechanisms.

As seen in Table 1 employees with strong AC have strong emotional attachments to and identification with the organization. Devoted employees couple strong emotional attachments with a sense that they have accumulated many side bets. In terms of our framework, they have the strongest bond to their employer. Attached employees have a strong affective bond but do not have strong inducements to remain (e.g., an employee working in a poor-paying job for a nonprofit social purpose organization). In the middle are the involved. They also have strong affective attachments coupled with a less intense need to remain.

People with moderately strong affective attachments are attached to their company but not with the intense bond felt by those with strong AC. The invested have moderate AC and strong CC; they are emotionally attached but are more driven by financial need or accumulated side bets. The allied feel some emotional attachments and some sense of need to stay, but neither motive is particularly strong. We expect many employees to feel this sort of ambivalence about their employers. Finally, complacent employees couple moderate AC with weak CC. These people feel some emotional attachments but no particular need to remain with the organization. They might be employees who feel well treated but who would not hesitate to leave if a good opportunity arose.

Three groups represent people with low AC and varied levels of CC: the trapped, free agents, and the uncommitted. The trapped feel no emotional attachment but have a strong need to remain. One example of a trapped employee would be an older worker in a manufacturing setting who has job skills that are not easily transferable to other jobs. Free agents also feel weak emotional attachments but have accumulated some side bets. Like the complacent, they would probably not hesitate to leave but might find it a bit more difficult to find a more desirable job. Finally, the uncommitted have the least desirable employment relationship. They feel no particular sense of wanting or needing to stay and may be quite alienated from the organization.

On the basis of these issues described above, the primary purpose of this research was to investigate the existence of and

differences among profiles of AC and CC. Although researchers often form profiles simply by splitting people into all possible combinations of high and low groups (e.g., using median splits), not all theoretically possible profiles may exist. Therefore, we developed some preliminary expectations about which profiles would be more likely to occur. First, we thought the uncommitted profile would be the least likely to occur. These employees would be expected to self-select out of the company as soon as possible. Second, prior research (e.g., Meyer et al., 1990; Somers, 1995) has invoked cognitive consistency arguments to suggest that high levels of one form of commitment are unlikely to occur with low levels of another (e.g., the trapped and attached). On the basis of this logic, we expect the devoted profile to be more common than either the invested or the involved.

Our research also investigates whether commitment profiles have different patterns of job performance and citizenship behavior. Such differences help establish the construct validity of the profiles and facilitate further theoretical developments. A well-validated set of commitment profiles also may contribute to practice in several ways. For instance, profile descriptions may be easier to communicate to a lay audience than findings concerning multidimensional constructs. Profile research also may help focus interventions on employees whose attachments are easiest to change or those for whom changing commitment leads to large changes in behavior.

## Study 1

### Method

*Purpose and participants.* The main purpose of Study 1 was to use cluster analysis to generate an initial set of commitment profiles. The participants were members of a petroleum and natural energy firm participating in a larger investigation of the company's benefits programs. The participants came from several sites across the United States and from several occupations, including oil and gas engineers, pipeline maintenance specialists, accountants, human resource professionals, computer systems analysts, satellite programmers, and video specialists. Questionnaire packets were mailed to a stratified random sample of 3,000 employees representing approximately 25% of the total workforce. Participation was voluntary, and 1,035 employees (34.5%) returned usable surveys. Prior research suggests that AC and CC scale properties often fluctuate during the first few months of employment (Vandenberg & Self, 1993). Therefore, we eliminated 56 participants with less than 4 months of tenure and 9 part-time workers; the final sample size was 970.

*Organizational commitment measures.* We assessed affective commitment ( $\alpha = .82$ ; raw  $M = 5.23$ , raw  $SD = 0.87$ ) and continuance commitment ( $\alpha = .80$ ; raw  $M = 4.68$ , raw  $SD = 1.09$ ) using Meyer and Allen's (1984) eight-item scales. We rewrote four of the AC items that were originally negatively worded so that they would be positively worded and made some other minor changes to the item content (e.g., changing "this organization" to the company name).

*Cluster analysis.* Following suggestions of other researchers (Aldenderfer & Blashfield, 1984; Blashfield, 1976; Morey, Blashfield, & Skinner, 1983), we performed a hierarchical cluster analysis using Ward's method, which minimizes variances within clusters (thus maximizing the internal cohesion of a cluster). We followed Hair and Black's (2000) recommendation to use squared euclidean distance as the similarity index. Because distance measures are sensitive to differing scales or magnitudes among the variables (Aldenderfer & Blashfield, 1984), we standardized all measures before we calculated the similarities. We determined the final number of clusters by plotting the fusion coefficients against the number of cluster solutions (cf. Aldenderfer & Blashfield, 1984). The fusion coefficient is the value of the smallest distance between two clusters. Fusion plots are

interpreted by finding the point at which plotted values begin to flatten, thus indicating that no new information is revealed by further fusions of clusters.

### Results and Discussion

The fusion plot suggested that the optimal cluster solution lay somewhere between three and five clusters. Table 2 shows the standardized cluster means (i.e.,  $z$  scores) for each of these solutions. We labeled the clusters according to our framework by designating AC or CC means greater than .79 as indicative of high commitment and AC or CC cluster means below  $-.79$  of low commitment (this corresponds to a large effect of .80 in  $z$  score terms). The AC mean for one group was .77 and was judged to be sufficiently close to the cutoff to indicate strong commitment (this group consisted of the same people in the four- and five-cluster solutions). Thus, the three-cluster solution included allied (moderate AC and CC), complacent (moderate AC, low CC), and free agent clusters (low AC, moderate CC). In the four-cluster solution, the allied cluster split into allied and devoted clusters (high AC and CC). Finally, in the five-cluster solution, the complacent cluster split into complacent and uncommitted (low AC and CC) clusters.

These findings fit several of our expectations. First, we obtained all four clusters we thought were most likely in both the four- and five-cluster solutions. Second, of the three profiles we thought were least likely, the only one we found was the uncommitted in the five-cluster solution. Third, several clusters included moderate levels of at least one form of commitment, supporting our point about distinguishing profiles reflecting moderate attachments from those reflecting more intense positive or negative attachments. Before choosing a final optimal cluster solution, we sought to replicate the Study 1 findings. Study 2 describes these efforts.

## Study 2

### Method

*Purpose and participants.* Because choices of optimal cluster analysis solutions are somewhat subjective, generalizability evidence is particularly important (Hair & Black, 2000). Therefore, we examined the extent to which the cluster solutions replicated in an independent (archival) sample of employed students ( $N = 403$ ). The students were recruited from three universities: two in the northeastern United States and one in the southwestern United States (most were from psychology classes and most received extra course credit for participating). As in Study 1, we restricted the analyses to participants with at least 4 months of tenure, yielding a final sample of 345 participants. The sample was mostly women (67%) and Caucasian (89%), with a mean age of 24 years and an average of 31 months of tenure. Regarding job type, 36% described their positions as skilled or unskilled labor; 40% as professional, technical, or sales; 24% as clerical; and 7% as managers. The most striking difference between the samples is that, although all Study 1 participants worked full time, most of the Study 2 participants (81%) worked part time. This contrast is desirable because only very robust profiles should generalize across such different groups.

*Measures.* To measure organizational commitment, we used the same AC ( $\alpha = .80$ ) and CC ( $\alpha = .73$ ) scales and response format as in Study 1, with three exceptions. First, we only rewrote two of the negatively worded AC items to be positive. Second, the items were scored on a 5-point agreement scale rather than a 7-point agreement scale. Third, three of the CC items were slightly shortened, without changing the substantive meaning of the items.

### Results and Discussion

We conducted the cluster analyses using the same procedures as in Study 1. The fusion plot once again suggested between a three-

Table 2  
*Descriptive Statistics for Three-, Four-, and Five-Cluster Solutions in Study 1 and Study 2*

| Cluster                | Study 1 |         |       |         |     | Cluster     | Study 2 |         |       |         |     |
|------------------------|---------|---------|-------|---------|-----|-------------|---------|---------|-------|---------|-----|
|                        | AC      |         | CC    |         | N   |             | AC      |         | CC    |         | N   |
|                        | M       | SD      | M     | SD      |     |             | M       | SD      | M     | SD      |     |
| Three-cluster solution |         |         |       |         |     |             |         |         |       |         |     |
| Allied                 | 0.72    | 0.51    | 0.50  | 0.71*** | 449 | Devoted     | 0.84    | 0.66    | 0.95  | 0.64*** | 83  |
| Complacent             | -0.27   | 0.95    | -1.32 | 0.61*** | 216 | Allied      | 0.00    | 0.83    | -0.69 | 0.71*** | 174 |
| Free agents            | -0.88   | 0.75    | 0.20  | 0.74    | 305 | Free agents | -1.09   | 0.54    | 0.43  | 0.74    | 88  |
| Four-cluster solution  |         |         |       |         |     |             |         |         |       |         |     |
| Allied                 | 0.69    | 0.51    | 0.05  | 0.47*** | 275 | Allied      | 0.49    | 0.61    | -0.40 | 0.69*** | 110 |
| Complacent             | -0.27   | 0.95    | -1.32 | 0.61    | 216 | Complacent  | -0.59   | 0.73    | -1.18 | 0.40    | 64  |
| Devoted                | 0.77    | 0.51    | 1.20  | 0.37*** | 174 | Devoted     | 0.84    | 0.66    | 0.95  | 0.64*** | 88  |
| Free agents            | -0.88   | 0.75    | 0.20  | 0.74    | 305 | Free agents | -1.09   | 0.54    | 0.43  | 0.74    | 83  |
| Five-cluster solution  |         |         |       |         |     |             |         |         |       |         |     |
| Allied                 | 0.69    | 0.51*** | 0.05  | 0.47    | 275 | Allied      | 0.00    | 0.24*** | -0.01 | 0.40    | 67  |
| Complacent             | 0.19    | 0.39*** | -1.09 | 0.47    | 152 | Complacent  | -0.59   | 0.73*** | -1.18 | 0.40    | 64  |
| Devoted                | 0.77    | 0.51    | 1.20  | 0.37*** | 174 | Devoted     | 0.84    | 0.66    | 0.95  | 0.64*** | 88  |
| Free agents            | -0.88   | 0.75    | 0.20  | 0.74    | 305 | Free agents | -1.09   | 0.54    | 0.43  | 0.74    | 83  |
| Uncommitted            | -1.36   | 1.00*** | -1.86 | 0.55*** | 64  | Attached    | 1.14    | 0.39*** | -1.00 | 0.62*** | 43  |

Note. AC = affective commitment; CC = continuance commitment.

\*\*\* Standard scores of corresponding cluster pairs (e.g., AC Study 1 with AC Study 2) significantly differ at  $p < .001$ .

and five-cluster solution. Using the  $z$  score criterion described previously, we classified each cluster solution into our conceptual framework and compared the classifications across the two studies. Both the three- and five-cluster solutions had some inconsistencies with the first study. However, all of the groups in the four-cluster solution matched the four-cluster solution in Study 1. The sole difference was that the devoted cluster had a much stronger AC score in Study 2 ( $z = 1.20$ ) than in Study 1 ( $z = 0.77$ ), indicating more confidence in the strong AC classification for this group. In these analyses, the four-cluster solution showed the clearest pattern of replication across the two samples.

We also sought a significance test to examine whether the patterns of means in the corresponding Study 1 and Study 2 profiles significantly differed. Therefore, we conducted three multivariate analyses of variance (MANOVAs), one for each cluster solution. The MANOVAs examined group (i.e., cluster), study, and Group  $\times$  Study differences on AC and CC. A significant Group  $\times$  Study interaction suggests that the pattern of profile means differs across studies. All three of these interaction terms were significant: three-group interaction,  $\Lambda = .97$ ,  $F(4, 2616) = 8.93$ ,  $p < .000$ ,  $\eta^2 = .01$ ; four-group interaction,  $\Lambda = .95$ ,  $F(6, 2612) = 11.12$ ,  $p < .000$ ,  $\eta^2 = .03$ ; five-group interaction,  $\Lambda = .65$ ,  $F(8, 2608) = 78.14$ ,  $p < .000$ ,  $\eta^2 = .19$ .

The MANOVAs show that the point-to-point values of the commitment means differed across the two studies. However, given our relatively large cell sizes ( $ns = 43\text{--}445$ ), the estimated power was at or near 1.00 for all tests, meaning that the MANOVAs are extremely sensitive tests. Moreover, because two AC (or CC) means could be classified as high but still significantly differ from each other, the significance test arguably is too precise

as a test of replication. Finally, the sample and group effects also were significant, with much stronger differences across groups ( $\eta^2 = .43\text{--}.56$ ) than across samples ( $\eta^2 = .01\text{--}.19$ ). Thus, although the interactions were significant, the effects were much stronger for the tests of between-clusters differences than for differences between the samples or the Sample  $\times$  Cluster interactions.

We also conducted a series of simple effects analyses examining AC and CC differences on one cluster at a time across the two samples (see Table 2). Because of the sensitivity issues described previously, we set the alpha level at  $p < .001$  for significant differences in these analyses. Table 2 shows which corresponding pairs of AC and CC means were significantly different; note that nonsignificant differences support the replication of the clusters. The three- and four-cluster solutions had the fewest significantly different clusters. However, the significantly different CC means fell into the same high-moderate-low classifications for the four-cluster solution but not the three-cluster solution. Thus, the combination of the significance test and  $z$  score-based classifications supported the four-cluster solution. Figure 1 presents plots of the standard scores for the two four-cluster solutions, further illustrating the similarities between the two studies.<sup>1</sup>

<sup>1</sup> Cluster researchers often use  $k$ -means clustering as another replication strategy (cf. Humphreys & Rosenheck, 1995; O'Connor, Kershaw, & Hameister, 2001). We conducted a  $k$ -means cluster analysis on the four-cluster solution. All differences between the initial Study 1 centroids and the final Study 2 solution were between .02 and .21, providing strong evidence for the replication of the Study 1 clusters in Study 2.

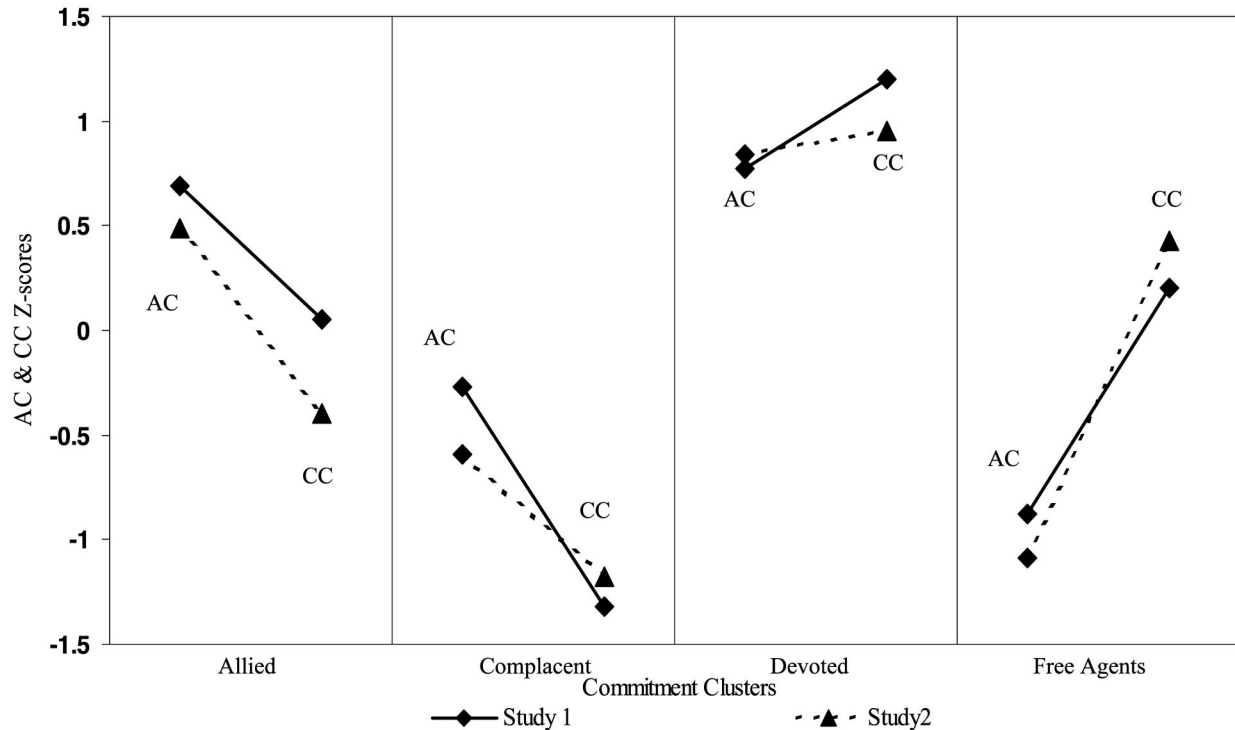


Figure 1. Profile plots of Study 1 (solid lines) and Study 2 (dashed lines) four-cluster solutions. AC = affective commitment; CC = continuance commitment.

### Study 3

#### Method

The primary purpose of Study 3 was to examine profile differences in task performance and organizational citizenship behavior (OCB). Task performance consists of behaviors involved in the production of goods and services or activities that sustain the technical core of the company (Borman & Motowidlo, 1993). In contrast, OCBs support the broader social and psychological environment in which the technical core functions (Organ, 1988, 1997). Williams and Anderson (1991) distinguished between two forms of OCB. Organizationally directed OCBs (OCB-Os) benefit the global organization and include behaviors such as participating in voluntary events or promoting the company's image. In contrast, interpersonally directed OCBs (OCB-Is) benefit specific individuals and include behaviors such as staying late to help a colleague finish a project or being courteous toward coworkers.

Configural approaches create new possibilities for examining relationships among AC, CC, and performance. Meyer and Herscovitch (2001) proposed that "when employees pursue a course of action to avoid costs, or out of obligation, they are more sensitive to conditions that define what is required or expected of them" (p. 312). They argued that CC represents a perceived constraint on behavior and higher CC would temper the beneficial effects of AC on performance. This implies that free agents would show the lowest levels of performance. Meyer and Herscovitch did not discuss cases in which one form of commitment is high and others are moderate rather than low. However, the generally consistent findings for AC as a predictor of performance and OCB (e.g., Organ & Ryan, 1995; Riketta, 2002) imply that AC exerts a stronger influence on behavior than CC. Thus, we expected the devoted to show the highest levels of performance. Meyer and Herscovitch's analysis also implies that, because of their lower CC, complacent workers would receive higher performance ratings than the allied.

Rusbult and Farrell's (Farrell & Rusbult, 1981; Rusbult & Farrell, 1983) investment model of social exchange relationships provides a second set of predicted profile differences in performance and OCB. They suggested employees have stronger exchange relationships when they evaluate the benefits of remaining with the company as greater than the benefits of leaving. Their concept of cognitive investment in a social exchange relationship strongly resembles CC. However, whereas Meyer and Herscovitch (2001) conceptualized CC as indicative of being trapped in a relationship, Rusbult and Farrell's model implies that employees react favorably to feeling that the benefits of remaining with the company outweigh the potential benefits of leaving. Applied to commitment, this model suggests that high CC should amplify the beneficial effects of AC. Thus, both models predict that the devoted would receive the highest performance ratings while the free agents would receive the lowest. Meyer and Herscovitch's model predicts that the complacent would receive higher ratings than the allied. Rusbult and Farrell's model predicts that the allied would receive higher ratings than the complacent.

Past literature suggests that different forms of OCB usually have similar predictors (e.g., LePine, Erez, & Johnson, 2002; Organ & Ryan, 1995). However, attitudinal commitment (basically AC) is more strongly related to OCB than to task performance (Riketta, 2002). Similarly, Meyer and Herscovitch (2001) suggested that the effects of AC and CC are stronger for discretionary behaviors such as OCB. Therefore, we expected similar patterns of findings for OCB and performance with fewer profile differences for task performance than for OCB.

Study 3 used a subset of the Study 2 participants. For Study 3, the Study 2 participants were asked to provide the name and mailing address of their supervisors. We sent the supervisors a packet with a performance appraisal form and an informed consent letter; 190 supervisors (55%) returned completed surveys. As in the first two studies, we restricted our analyses to participants with 4 or more months of tenure ( $N = 148$ ). A series of analyses of variance (ANOVAs) and chi-square tests revealed no demo-

Table 3  
Correlations Between Commitment and Supervisor Ratings of Performance in the Study 3 Sample

| Scale                          | <i>M</i> | <i>SD</i> | 1     | 2     | 3     | 4     | 5     | 6     |
|--------------------------------|----------|-----------|-------|-------|-------|-------|-------|-------|
| Organizational commitment      |          |           |       |       |       |       |       |       |
| 1. Affective commitment        | 3.04     | 0.73      | (.80) |       |       |       |       |       |
| 2. Continuance commitment      | 2.82     | 0.74      | .06   | (.73) |       |       |       |       |
| Supervisor performance ratings |          |           |       |       |       |       |       |       |
| 3. Task performance            | 3.88     | 0.72      | .37   | -.06  | (.95) |       |       |       |
| 4. OCB-I                       | 3.76     | 0.66      | .31   | -.05  | .80   | (.91) |       |       |
| 5. OCB-O                       | 3.52     | 0.76      | .38   | .00   | .67   | .60   | (.84) |       |
| 6. Antisocial behavior         | 4.23     | 0.70      | .10   | -.09  | .50   | .59   | .36   | (.80) |

*Note.* Coefficient alpha on the diagonal; listwise  $N = 148$ . All correlations greater than .30 are significant at  $p < .01$ . The antisocial behavior scale is reverse-coded; higher scores indicate better performance. We also obtained self-reports of performance on the same set of items. The (uncorrected) self-supervisor performance correlations provide convergent validity evidence for the task performance and OCB ratings ( $r_s = .41, .34$ , and  $.35$  for task performance, OCB-O, and OCB-I, respectively). The self-reports of antisocial behavior were not related to supervisor ratings ( $r = .12$ ) probably because they were less reliable than other self-reported dimensions ( $\alpha = .47$ ) and more subject to response biases. OCB-I = organizational citizenship behavior, interpersonally directed; OCB-O = organizational citizenship behavior, organizationally directed.

graphic or commitment differences between the Study 2 participants who did and did not provide their supervisor's address. The AC and CC reliabilities for those whose supervisors provided ratings also closely resembled the entire sample (AC = .81; CC = .70).

The performance measure was a 46-item inventory developed by Robert R. Sinclair. Supervisors rated each item on a 5-point frequency scale ranging from 1 (*never does this*) to 5 (*does this more frequently than nearly every other worker*). A principal-axis factor analysis extracted six factors, one of which had only two items and was dropped. We used promax rotation to facilitate the interpretation of the remaining five factors. We dropped 14 factorially complex items (i.e., items loading higher than .30 on two or more factors), and the remaining 30 items loaded on four factors. The first factor consisted of 13 items ( $\alpha = .95$ ) reflecting aspects of task performance common to most jobs (e.g., "works well without supervision" "takes on new assignments with enthusiasm"). The second consisted of eight OCB-I items ( $\alpha = .91$ ; e.g., "considers how actions affect coworkers" "tolerates temporary inconveniences without complaint"). The third consisted of four OCB-O items ( $\alpha = .80$ ; e.g., "represents the organization favorably to outsiders" "makes suggestions to improve productivity"). The fourth (antisocial behavior) consisted of five items ( $\alpha = .80$ ) reflecting undesirable performance or poor citizenship (e.g., "wastes organizational resources" "complains about trivial matters at work"). These items were coded so higher scores indicate less antisocial behavior. Table 3 shows correlations among the final performance and commitment scales.<sup>2</sup>

### Results and Discussion

We examined performance differences among the four clusters by conducting a MANOVA (see Table 4). The MANOVA indicated significant differences among the clusters on the multivariate combination of performance and OCB measures:  $\Lambda = .78, F(12, 373.34) = 3.14, p < .01, \eta^2 = .08$ . Follow-up ANOVAs indicated univariate differences in all four performance criteria ( $p_s < .05$ ); comparable effect sizes were slightly larger for task performance and OCB-O (both  $\eta^2_s = .13$ ) than for OCB-I and antisocial behavior (both  $\eta^2_s = .09$ ). These findings also indicate effect sizes comparable with those obtained in other commitment studies and suggest that the clusters account for modest amounts of variance in all of the performance criteria.

We then conducted post hoc pairwise comparisons (using the Bonferroni method) to identify significant performance differences between the clusters. As expected, the free agents received lower OCB-I, OCB-O, and task performance ratings than members of the other profiles. The free agents also received lower ratings on the

antisocial behavior dimension, indicating that they engaged in more antisocial behavior than all of the other groups. However, the only significant difference was between the free agents and the complacent. Consistent with our expectations, the devoted received higher ratings than other groups on most of the dimensions (except the complacent, who received slightly higher task performance and antisocial behavior ratings), but the only group from whom they significantly differed was the free agents. The central conclusion from these analyses is that free agents receive poorer task performance, OCB, and antisocial behavior ratings than members of the other commitment profiles, who all received similar ratings (see Footnote 2).

### General Discussion

Drawing from configural theory and prior commitment research, we proposed a taxonomy of AC and CC profiles. Study 1 identified four profiles in a diverse sample of energy industry employees. Study 2 replicated these profiles using a sample of employed college students. Finally, in Study 3 we demonstrated task performance, OCB, and antisocial behavior differences between the profiles. These findings illustrate the potential theoretical, statistical, and practical advantages of a configural approach to studies of commitment and related constructs.

Perhaps the most important theoretical implication of our work is that global AC and CC appear to occur in a small set of intuitively meaningful configurations that are associated with some performance differences among employees. The performance findings demonstrate the equifinal nature of these configurations, because several (but not all) profiles obtained similar job performance ratings. Such findings could be attributed to criterion deficiency, as we relied on a single source of performance data (using an instrument that had not been previously validated). However, our findings demonstrate the potential value of consid-

<sup>2</sup> We also conducted paired  $t$  tests to identify within-group differences on the performance dimensions. All groups received the highest ratings on the antisocial behavior dimension, followed by task performance, OCB-I, and OCB-O, respectively. Most of these tests were significant (at  $p < .05$ ), but we believed that they were not central to our study and chose not to present them.

Table 4  
Performance Differences Between Clusters in the Study 3 Four-Cluster Solution

| Variable                         | Devoted<br>(N = 40) |      | Allied<br>(N = 48) |      | Complacent<br>(N = 24) |      | Free agents<br>(N = 36) |      |
|----------------------------------|---------------------|------|--------------------|------|------------------------|------|-------------------------|------|
|                                  | M                   | SD   | M                  | SD   | M                      | SD   | M                       | SD   |
| Task performance                 |                     |      |                    |      |                        |      |                         |      |
| $F(3, 144) = 7.07, \eta^2 = .13$ | 4.08 <sup>a</sup>   | 0.64 | 3.95 <sup>a</sup>  | 0.71 | 4.17 <sup>a</sup>      | 0.54 | 3.47 <sup>b,c,d</sup>   | 0.76 |
| OCB-I                            |                     |      |                    |      |                        |      |                         |      |
| $F(3, 144) = 4.86, \eta^2 = .09$ | 3.97 <sup>a</sup>   | 0.60 | 3.86 <sup>a</sup>  | 0.64 | 3.92 <sup>a</sup>      | 0.61 | 3.47 <sup>b,c,d</sup>   | 0.62 |
| OCB-O                            |                     |      |                    |      |                        |      |                         |      |
| $F(3, 144) = 6.98, \eta^2 = .13$ | 3.78 <sup>a</sup>   | 0.73 | 3.62 <sup>a</sup>  | 0.70 | 3.58 <sup>a</sup>      | 0.74 | 3.06 <sup>b,c,d</sup>   | 0.74 |
| Antisocial                       |                     |      |                    |      |                        |      |                         |      |
| $F(3, 144) = 4.99, \eta^2 = .09$ | 4.33                | 0.67 | 4.23               | 0.71 | 4.63 <sup>a</sup>      | 0.32 | 3.98 <sup>d</sup>       | 0.69 |

Note. Multivariate analysis of variance:  $\Lambda = .78, F(12, 373.34) = 3.12, p < .01, \eta^2 = .08$ . Antisocial behavior is reverse-scored so higher scores indicate more desirable behavior. All matched-pairs *t* tests comparing within-group performance ratings were significant at  $p < .05$  except OCB-I and task performance for the devoted and the free agents, task performance and antisocial behavior for the allied, and OCB-I and OCB-O for the allied. OCB-I = organizational citizenship behavior, interpersonally directed; OCB-O = organizational citizenship behavior, organizationally directed.

<sup>a</sup> Significantly different from corresponding free agent mean in Bonferroni-adjusted post hoc tests ( $p < .05$ ). <sup>b</sup> Significantly different from corresponding devoted mean ( $p < .05$ ). <sup>c</sup> Significantly different from corresponding allied mean ( $p < .05$ ). <sup>d</sup> Significantly different from corresponding complacent mean ( $p < .05$ ).

ering both configural models of commitment and equifinal relationships among constructs of interest.

Most studies examining synergistic relationships between constructs test moderated regression models. However, the statistical power needed to detect interactions often becomes prohibitively large, particularly with multicollinearity and the relatively small samples ( $N < 200$ ) typical of applied research. Cluster analyses are a less costly (in power terms) approach to examining synergistic relationships, which also may be easier to interpret than moderated regression. Ultimately, cluster analysis and moderated regression can be viewed as complementary techniques with choices between them guided by the nature of the data in question and the theory guiding the research.

With respect to practice, our findings imply that commitment-based interventions aimed at shifting members from free agent status to any profile marked by at least moderate AC will lead to similar performance gains. Changes among other commitment profiles, such as moving from allied to devoted, appear less likely to result in these gains. This suggests that profile-focused interventions could be more effective than general efforts to increase commitment. Further, our profiles are intuitively sensible and likely to be easily understood by managers considering various retention or productivity enhancement strategies. For example, interventions can be discussed in terms of encouraging workforce shifts from one profile to others. Notwithstanding these advantages, it is important to remember that intuitively simple profiles may create or reinforce broad employee stereotypes and should be used with caution.

The fact that we used two samples with different response scales made us unable to make definitive statements about the extent to which the two samples have similar overall levels of commitment. Our commitment scores were standardized within each sample such that the clusters are classified as high, medium, or low based on their relative distance from their own sample mean rather than the combined sample mean. As the profile plots indicate, the profiles themselves were strikingly similar across the two studies. However, it is important to note that we used ad hoc statistical criteria to classify each group relative to the commitment distributions in each sample. Future research to develop commitment

norms using samples with identical response scales would help resolve these concerns.

We conclude by briefly highlighting two directions for further research on commitment profiles. First, we encourage additional confirmatory work, both on the nature of the profiles and on their relationships with other important outcomes. For example, researchers should investigate whether the four profiles generalize to other samples and settings and should examine profile differences on other outcomes (e.g., objective performance data, health, and retention outcomes). Such studies could help clarify whether other profile construction strategies would yield different sets of profiles. Second, as Meyer and Allen (1997) noted, a single study probably cannot examine all possible forms of commitment because such a study would need to include multiple forms of attachment to several different constituencies. Our findings illustrate that not all theoretically conceivable combinations of commitment constructs are likely to occur. Cluster-based techniques might help researchers narrow the list of possibilities to include the profiles that are most common across multiple employment settings. Then researchers could investigate which commitment profiles commonly occur across several different constituencies. This approach might help integrate the global commitment and multiple constituency literatures.

## References

- Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Beverly Hills, CA: Sage.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology, 63*, 1–18.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior, 49*, 252–276.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology, 66*, 32–42.
- Becker, T. E. (1992). Foci and bases of commitment: Are they distinctions worth making? *Academy of Management Journal, 35*, 232–244.
- Becker, T. E., & Billings, R. S. (1993). Profiles of commitment: An empirical test. *Journal of Organizational Behavior, 14*, 177–190.

- Blashfield, R. K. (1976). Mixture model tests of cluster analysis: Accuracy of four agglomerative hierarchical methods. *Psychological Bulletin*, *83*, 377–388.
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, W. C. Borman, et al. (Eds.), *Personnel selection in organizations* (pp. 71–98). San Francisco: Jossey-Bass.
- Carson, K. D., Carson, P. P., Roe, C. W., Birkenmeier, B. J., & Phillips, J. S. (1999). Four commitment profiles and their relationships to empowerment, service recovery, and work attitudes. *Public Personnel Management*, *28*, 1–12.
- Cohen, A. (1996). On the discriminant validity of the Meyer and Allen measures of organizational commitment: How does it fit with the work commitment construct? *Educational & Psychological Measurement*, *56*, 494–504.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Erlbaum.
- Craig, S. B., & Smith, J. A. (2000, April). *Integrity and personality: A person-oriented investigation*. Paper presented at the 15th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resources management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, *39*, 802–836.
- Farrell, D., & Rusbult, C. E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. *Organizational Behavior and Human Performance*, *27*, 78–95.
- Hair, J. F., Jr., & Black, W. C. (2000). Cluster analysis. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (pp. 147–205). Washington, DC: American Psychological Association.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology*, *87*, 474–487.
- Howard, A. (Ed.). (1995). *The changing nature of work*. San Francisco: Jossey-Bass.
- Humphreys, K., & Rosenheck, R. (1995). Sequential validation of cluster analytic subtypes of homeless veterans. *American Journal of Community Psychology*, *23*, 75–97.
- Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior*, *51*, 319–337.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations* (2nd ed.). New York: Wiley.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *Journal of Applied Psychology*, *87*, 52–65.
- Magenau, J. M., Martin, J. E., & Peterson, M. M. (1988). Dual and unilateral commitment among stewards and rank-and-file union members. *Academy of Management Journal*, *31*, 359–376.
- Meyer, J. P., & Allen, N. J. (1984). Testing the "side-bet" theory of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, *76*, 845–855.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology*, *75*, 710–720.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, *11*, 299–326.
- Meyer, J. P., Paunonen, S., Gellatly, I., Goffin, R., & Jackson, D. (1989). Organizational commitment and job performance: It's the nature of commitment that counts. *Journal of Applied Psychology*, *74*, 152–156.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, *61*, 20–52.
- Miller, D., & Friesen, P. H. (1984). *Organizations: A quantum view*. Englewood Cliffs, NJ: Prentice Hall.
- Morey, L. C., Blashfield, R. K., & Skinner, H. A. (1983). A comparison of cluster analysis techniques within a sequential validation framework. *Multivariate Behavioral Research*, *18*, 309–329.
- O'Connor, N. A., Kershaw, T., & Hameister, A. D. (2001). Documenting patterns of nursing interventions using cluster analysis. *Nursing Measurement*, *9*, 73–90.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct cleanup time. *Human Performance*, *10*, 85–97.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, *48*, 775–802.
- Riketta, M. (2002). Attitudinal organizational commitment and job performance: A meta-analysis. *Journal of Organizational Behavior*, *23*, 257–266.
- Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives and investments. *Journal of Applied Psychology*, *68*, 429–438.
- Shore, L. M., & Wayne, S. J. (1993). Commitment and employee behavior: Comparison of affective and continuance commitment with perceived organizational support. *Journal of Applied Psychology*, *78*, 774–780.
- Sinclair, R. R., Hannigan, M. A., & Tetrick, L. E. (1995). Benefit coverage and employees' attitudes: A social exchange perspective. In L. E. Tetrick & J. Barling (Eds.), *Changing employment relations: Behavioral and social perspectives* (pp. 163–185). Washington, DC: American Psychological Association.
- Somers, M. J. (1995). Organizational commitment, turnover, and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior*, *16*, 49–58.
- Somers, M. J., & Birnbaum, D. (2000). Exploring the relationship between commitment profiles and work attitudes, employee withdrawal, and job performance. *Public Personnel Management*, *29*, 353–364.
- Vandenberg, R. J., & Self, R. M. (1993). Assessing newcomers' changing commitments to the organization during the first 6 months of work. *Journal of Applied Psychology*, *78*, 557–568.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, *17*, 418–428.

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