RESEARCH REPORTS

A Comparison of Linear and Nonlinear Relations Between Organizational Commitment and Work Outcomes

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The authors compared linear and nonlinear relations between affective and continuance commitment and 3 commonly studied work outcomes (turnover cognitions, absenteeism, and job performance), observed in 3 separate research settings. Using a linear model, they replicated the common observation in the literature that affective commitment is more strongly related to work outcomes than continuance commitment. Introducing a higher order continuance commitment term into the same equations, however, they found that the linear model seriously understated the magnitude of continuance commitment’s effect on all 3 criterion measures. These findings are consistent with recent developments that identify different motivational mindsets associated with affective and continuance commitment (J. P. Meyer, T. E. Becker, & C. Vandenbergh, 2004).

Keywords: organizational commitment, linear versus nonlinear relations, turnover, absenteeism, job performance

Commitment has been defined as a force that binds an individual to an entity or course of action (Meyer & Herscovitch, 2001). In the case of organizational commitment, multiple components have been recognized in the literature (Allen & Meyer, 1990; Mathieu & Zajac, 1990; Meyer & Allen, 1991, 1997; O’Reilly & Chatman, 1986). Two of these components, affective commitment (AC) and continuance commitment (CC), were chosen as the focus of this study because they are most distinguishable from each other and because it has been shown that their behavioral consequences, apart from turnover, are different. Employees who experience strong AC feel a positive desire to remain with their organizations, whereas employees who report strong CC remain with their organizations to avoid the costs associated with leaving (Meyer & Herscovitch, 2001). With respect to behavioral outcomes, AC has been found to be positively related to a variety of work outcomes (e.g., job performance, organizational citizenship behavior, attendance), whereas the same relations with CC have been found to be negligible or even negative (Mathieu & Zajac, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002).

Although higher levels of AC and CC have both been associated with decisions to stay with an organization, it is puzzling that only AC has been consistently linked to nonturnover outcomes, such as absenteeism and job performance (Allen & Meyer, 1990; Meyer & Allen, 1991, 1997; Meyer et al., 2002). The true correlations, for example, between AC and measures of withdrawal cognitions, voluntary absenteeism and supervisor-rated job performance have been estimated to be –.56, –.22 and .17; whereas the corresponding estimates for CC are –.18, .04 and –.08, respectively (Meyer et al., 2002). One important conclusion that follows from these estimates is that the magnitude of the association between organizational commitment and work outcomes clearly depends on the form of commitment being assessed. It is this empirical generalization that begs the question, why?

According to Meyer et al. (2004), AC and CC may be associated with different motivational mindsets that potentially shape how individuals express their commitment. Drawing upon this framework, we proposed that these different motivational states result in fundamentally different kinds of relations, and that an assumption of linearity in the case of CC underestimates its true relations with behavioral criteria. In the present research we observed, in three separate samples, relations between measures of AC and CC and a criterion measure: turnover cognitions (e.g., Griffeth, Hom, & Gaertner, 2000; Sagar, Griffeth, & Hom, 1998; Tett & Meyer, 1993); individual absence frequency (e.g., Hackett & Guion, 1985; Hammer & Landau, 1981); and supervisor ratings of job performance (e.g., Goffin, Gellatly, Paunonen, Jackson, & Meyer, 1996). Examining linear and nonlinear relations across several criterion types provided a more rigorous test of our study hypotheses.

Affective and Continuance Commitment: Two Motivational Mindsets

Meyer and Allen (1991) described AC as the employee’s emotional attachment to, identification with, and involvement in the organization. These feelings stem from the employee’s firsthand experience that the organization supports its employees, treats them fairly, and enhances their sense of personal importance and competence by appearing to value their individual and collective...
contributions (Meyer & Allen, 1997). Meyer et al. (2004) have proposed that, like commitment, an individual’s motivation to pursue a course of action is experienced as a mindset, which varies according to the perceived reasons for and purposes of the behavior. Drawing on self-determination theory (e.g., Ryan & Deci, 2000) and regulatory focus theory (Higgins, 1998), Meyer et al. (2004) asserted that the nature of one’s motivational mindset depends on the extent to which the intended act or behavior is perceived to be internally driven rather than externally controlled, and on whether the behavior is focused on personal advancement, growth, and accomplishment (promotion focus) rather than security, safety and responsibility (prevention focus). Meyer et al. (2004) proposed that employees with stronger AC experience greater intrinsic motivation, more autonomous forms of external regulation, and stronger promotion focus in the pursuit of goals. Moreover, employees can be expected to set or accept more difficult goals under conditions of autonomous regulation and promotion focus than under conditions of external regulation or prevention focus, and employees operating under the former conditions can also be expected to achieve the maximum level of accomplishment (Meyer et al., 2004). It is to be expected that as AC increases in strength, so will the salience of the internal drive and of the promotion focus, which, in turn, should increase desire to fulfill the maximum (or ideal) level of accomplishment under the terms of the commitment—in this case, increase an employee’s motivation to remain with the organization, perform at a high level, and avoid being absent.

**Hypothesis 1a:** AC has a negative, linear relation with turnover cognitions.

**Hypothesis 1b:** AC has a negative, linear relation with voluntary absenteeism.

**Hypothesis 1c:** AC has a positive, linear relation with job performance.

The mindset associated with CC is very different from the psychological state associated with AC. Meyer and Allen (1991) described CC as a cost-based form of attachment that is rooted in one’s belief that leaving the relationship would incur heavy personal sacrifices, and/or that alternative options are limited or nonexistent (Meyer & Allen, 1997). Instead of being motivated by a desire to remain, employees with higher levels of CC stay in order to minimize the risk of personal losses; in effect, they stay because they believe they have little choice. Meyer et al. (2004) proposed that individuals who experience strong CC will feel their choices are controlled (external regulation), and they will feel pressure to satisfy the minimum job requirements (prevention focus). It is expected that as CC increases from low to moderate levels, the external contingencies and risks associated with leaving, being absent, or performing poorly will become increasingly more salient for employees, as will the need for a defensive, prevention focus to maintain security, safety, and personal responsibility (Meyer et al., 2004). With this mindset in place, employees will be motivated to satisfy the minimum requirements for staying with the organization: not being absent too often, and performing the job well enough to remain employed. Beyond moderate levels, however, the effects of CC on behavior are likely to be modest or negligible. This is because the external regulation governing behavior or driving the need to adopt a defensive, prevention focus will become less salient once the minimum requirement responsible for that behavior or driving that need has been satisfied.

**Hypothesis 2a:** The form of the relationship between CC and turnover cognitions is nonlinear rather than linear.

**Hypothesis 2b:** The form of the relationship between CC and voluntary absenteeism is nonlinear rather than linear.

**Hypothesis 2c:** The form of the relationship between CC and job performance is nonlinear rather than linear.

**Present Research**

To date, most if not all reviews of the commitment literature have reported differential behavioral consequences for AC and CC without providing an explanation for these differences. We proposed that the observed differences have arisen because assumptions of linearity are not truly reflective of the underlying relationships at play. As will be shown, relaxing this assumption in the case of CC vastly improved this variable’s predictive power on work outcomes. To our knowledge, this is the first reported test of nonlinear relations between organizational commitment and work outcomes.

**Sample 1**

**Data Collection Procedures**

These data were gathered from a sample of 1,250 unionized utility workers, randomly chosen from their union’s membership list of approximately 14,200 names. To ensure confidentiality, the union distributed surveys through the organization’s internal mail system, asking respondents to return their surveys to the union office in a sealed envelope. Participation was voluntary and management was not involved in any way. In total, 429 usable surveys were returned. Missing item-level data on the study measures reduced our sample size to 424, for a response rate of approximately 35%.

**Sample Characteristics**

Information on respondents’ demographic and job characteristics show that our sample closely mirrored the population of all employees in the union, a population that was 81% male and which showed an average age of 41 and an average length of service of 15 years. By way of comparison, the sample was 82% male and reported an average age of 42 and an average tenure of 15 years.

**Measures**

**Turnover cognitions.** Our criterion measure reflected three cognitive process variables with strong ties to actual turnover (Griffeth et al., 2000; Mobley, 1977; Sagar et al., 1998). Respondents were asked to indicate on a 7-point scale (1 = almost never to 7 = almost always) how frequently over the past year they had (a) thoughts of quitting, (b) considered searching for another job, and (c) intended to quit. Responses to the three items were averaged to form a composite measure of turnover cognitions (\(M = \))
Organizational commitment. To be consistent across the three samples, our measures of AC and CC were computed using the two 6-item scales recommended by Meyer, Allen, and Smith (1993). Respondents expressed their level of agreement or disagreement with the 12 items on 7-point scales ranging from 1 (strongly disagree) to 7 (strongly agree). Item responses were averaged to produce a composite scale score for both AC ($M = 4.04, SD = 1.36$) and CC ($M = 5.41, SD = 1.16$). The reliability coefficient for our measures of AC and CC were .83 and .78, respectively, which compares favorably with meta-analysis results (Meyer et al., 2002).

Results

Descriptive analyses. Table 1 shows descriptive statistics and intercorrelations among the study variables. Two important conclusions can be drawn from this table. As would be expected for two theoretically orthogonal constructs, AC and CC are not significantly correlated. In this regard, our correlation of .08 compares favorably with a weighted average correlation of .05 estimated across 92 independent samples in the Meyer et al. (2002) meta-analysis. A second point is that the zero-order correlation of turnover cognitions with AC ($r = −.48$) and CC ($r = −.24$) is in the same direction, with the same order of magnitude, as has been suggested by prior research (Tett & Meyer, 1993; Meyer et al., 2002).

Regression analyses. Table 2 shows two alternative multivariate models of the regression of our criterion on the predictor variables. Model 1 provides a test of the linear model commonly used in most other studies, while Model 2 imposes a nonlinear functional form on our measure of CC. Both unstandardized ($B$) and standardized ($\beta$) regression coefficients are provided, the latter being important for comparing effect sizes between variables included in the same equation.

Looking first at Model 1, AC and CC are negatively and robustly related to turnover cognitions, with the magnitude of these effects being much stronger for AC ($\beta = −.46$) than for CC ($\beta = −.20$). These findings are consistent with existing research and support Hypothesis 1a. Model 2 shows the addition of a squared CC term to capture its anticipated nonlinear linkage with our criterion (Cohen, Cohen, West, & Aiken, 2003). Consistent with Hypothesis 2a, we find a negative-sloped relationship with turnover cognitions through much of the range of CC, with this relationship tapering off or flattening at higher values. Focusing on the standardized regression coefficients for the first-order ($\beta = −.86$) and second-order ($\beta = .67$) CC terms, we also notice that the nonlinear functional form substantially improves the predictive influence of CC on turnover cognitions.

To facilitate interpretation of these two sets of results, and to show how the effects of AC and CC differ between them, we show a plot of the two models in Figure 1. The plot shows the predicted values of the criterion at different levels of the particular form of commitment, evaluated at the mean of all other independent variables used in the equation. Two points are noteworthy from the plot. First, the negative-sloped relationship of CC to turnover cognitions is monolithic under Model 1 but flattens out at higher levels of CC under Model 2. This is consistent with the notion that, beyond a certain level, CC will no longer reduce the motivation to leave. Second, the plot in Model 2 accounts for substantially more variation in the effects of CC on the criterion. For example, the difference between the minimum and maximum levels of turnover cognitions predicted by CC is 2.60 units under Model 2 (i.e., the criterion is predicted to fall from 4.85 to 2.25 units), versus only 1.57 units under Model 1 (the criterion falls from 3.62 to 2.05 units). Stated otherwise, the predicted overall impact of CC on turnover cognitions is approximately 165% higher when using the nonlinear over the linear functional form. Given that the overall effect of AC on our criterion ranges from 2.98 to 2.94 units for Models 1 and 2, our results suggest that the linear model seriously underestimates the effect size of CC relative to AC on turnover cognitions.

Table 2

Sample 1 Multiple Regression Analysis for Turnover Cognitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.89</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>−0.50</td>
<td>0.05</td>
<td>−0.46**</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>−0.26</td>
<td>0.05</td>
<td>−0.20</td>
</tr>
<tr>
<td>Constant</td>
<td>7.85</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>−0.49</td>
<td>0.05</td>
<td>−0.45**</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>−1.10</td>
<td>0.36</td>
<td>−0.86**</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>0.08</td>
<td>0.04</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Note. $N = 424$. $F(2, 421) = 76.90, p < .01, R^2 = .27$, for Model 1. $F(3, 420) = 53.64, p < .01, R^2 = .28$, for Model 2.

Data Collection Procedures

These data were gathered from a population of 425 nursing and food services employees of a midsize healthcare organization. Employee surveys containing study measures were distributed at the hospital and returned via mail. All employees were informed that their participation in this study was voluntary and that their individual responses would remain confidential. Participants were asked to identify themselves so that their survey responses could be matched with organizational absenteeism records. In total, 166 surveys were returned. Missing item-level data on the study measures reduced the sample size to 164, for a response rate of approximately 39%.
Sample Characteristics

Eighty-eight percent of respondents were female. Respondents had accumulated an average of 7 years’ seniority, and approximately 80% of them belonged to a union. Population estimates showing 87% of all nursing and food service employees to be female compares favorably to the sample, as does this group’s average absence frequency of 2.68 incidents.

Measures

Absence frequency. Our measure was based on organizational records over the 12-month period following our collection of the commitment measures. An absence was recorded if the employee was unavailable to work a scheduled shift. Absences due to vacations or excused leaves (e.g., jury duty) were excluded. The frequency of absence incidents, regardless of duration, was computed for each respondent, as this measure was believed to best reflect voluntary or culpable absence ($M = 2.65, SD = 1.92$; Hackett & Guion, 1985; Hammer & Landau, 1981).

Organizational commitment. Again, to be consistent across the three samples, our measures of AC and CC were computed using the two 6-item scales recommended by Meyer et al. (1993). Descriptive statistics for AC ($M = 4.15, SD = 1.47$) and CC ($M = 5.00, SD = 1.18$) scales were comparable with our observations in Sample 1, as were the reliability coefficients of .87 and .73, respectively.

Results

Descriptive analyses. Table 3 shows descriptive statistics and intercorrelations among the variables in this sample. The nonsignificant correlation of $-0.05$ between AC and CC compares favorably with the corrected correlation of .05 estimated by Meyer et al. (2002). The zero-order correlation of absence frequency with AC ($r = -0.20$) and CC ($r = 0.08$) is also in the same direction, with the same order of magnitude, as has been suggested by prior research (Meyer et al., 2002).

Regression analyses. Table 4 shows the regressions of our criterion on AC and linear and nonlinear representations of CC. Looking across the two models, AC is negatively and very robustly related to absence frequency, which provides support for Hypothesis 1b. As for CC, Model 1 shows the finding, common across most studies, of a nonsignificant relation with absence frequency. Forcing a nonlinear relationship between CC and absence frequency in Model 2, however, tells a different story. Consistent with Hypothesis 2b, we find a positive-sloped relationship with absence frequency through much of the range of CC, with this relationship tapering off or flattening at higher values. Focusing on the standardized regression coefficients for the first-order ($\beta = 1.19$) and second-order ($\beta = -1.14$) CC terms, we also notice that the nonlinear functional form substantially improves the predictive influence of CC on absence frequency.

Figure 1. Predicted turnover cognitions as a function of affective commitment (AC) and linear and nonlinear representations of continuance commitment (CC). For organizational commitment, higher numbers indicate stronger feelings of commitment; for turnover cognition, higher numbers indicate more frequent mental processing (e.g., thoughts) associated with leaving the organization.

Table 3

Sample 2 Descriptive Statistics and Zero-Order Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Absence frequency</td>
<td>2.65</td>
<td>1.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Affective commitment</td>
<td>4.15</td>
<td>1.47</td>
<td>$-0.20^{**}$</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>3. Continuance commitment</td>
<td>5.00</td>
<td>1.18</td>
<td>0.08</td>
<td>$-0.05$</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Note. $N = 164$. Scale reliabilities are shown in the diagonal.

$^{**}p < .01$. 

Figure 1. Predicted turnover cognitions as a function of affective commitment (AC) and linear and nonlinear representations of continuance commitment (CC). For organizational commitment, higher numbers indicate stronger feelings of commitment; for turnover cognition, higher numbers indicate more frequent mental processing (e.g., thoughts) associated with leaving the organization.
evaluated at the mean of all other independent variables. The nonlinear Model 2 plot of CC is particularly telling in that it shows the leveling of this variable’s effects on our criterion at moderate to high levels. This is consistent with the view that beyond a certain level, continuance-committed employees will not absent themselves voluntarily. The plot is also notable for showing the substantially stronger effect size of CC relative to AC on voluntary absence. In particular, the difference in the minimum and maximum effect of CC on predicted absence frequency is 0.70 units in the linear model but 3.10 units in the nonlinear model. This represents an overall improvement of approximately 443%. By contrast, the overall effect of AC on predicted absence frequency is 1.51 units in Model 1 and 1.73 units in Model 2, showing that the linear model seriously underestimates the effect size of CC relative to AC on absence frequency.

Table 4
Sample 2 Multiple Regression Analysis for Absence Frequency

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>3.11</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>-0.25</td>
<td>0.10</td>
<td>-0.19*</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>0.12</td>
<td>0.13</td>
<td>0.07</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.74</td>
<td>1.81</td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>-0.29</td>
<td>0.10</td>
<td>-0.22**</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>1.95</td>
<td>0.79</td>
<td>1.19*</td>
</tr>
<tr>
<td>Continuance commitment squared</td>
<td>-0.20</td>
<td>0.08</td>
<td>-1.14*</td>
</tr>
</tbody>
</table>

Note. N = 164. F(2, 161) = 3.71, p < .05, R² = .04, for Model 1. F(3, 160) = 4.40, p < .01, R² = .08, for Model 2.
* p < .05. ** p < .01.

Sample 3

Data Collection Procedures

These data were collected from employees with managerial responsibilities in a small municipal government organization. The commitment measures were part of a more comprehensive survey that was distributed internally and returned via mail. All respondents were informed that their participation in this study was voluntary and that their individual responses would remain confidential. Participants were asked to identify themselves so that their survey responses could be matched with performance ratings. In total, 76 usable surveys were returned from the population of 81 managerial employees, representing a response rate of approximately 94%.

Sample Characteristics

All respondents were nonunion, managerial employees, 74% of whom were male. The average length of service reported by respondents was 16 years. These statistics were virtually identical to those characterizing the population of all managers.

Measures

Job performance. With the help of the human resource manager, we identified one superior manager for each of the respondent managers, based on the formal reporting hierarchy. Raters were asked to assess the managerial performance of their direct reports in the following areas: (a) scheduling, organizing, and directing operations and activities; (b) working and interacting (socially) with individuals and groups of people; (c) leading and motivating individuals and groups of people; (d) long-range planning; (e) dealing effectively with conflict situations; (f) managing effectively in crisis situations; and (g) assigning work, delegating, providing direction, and communicating...
objectives, priorities, and performance expectations to subordinates. These seven generic dimensions of managerial performance applied to all respondents in the sample and reflected the results of job analysis for this occupational group (e.g., Campbell, 1990; Schippmann, Prien, & Hughes, 1991). The seven performance ratings were obtained using the relative percentile method (RPM; see Goffin et al., 1996; McCarthy & Goffin, 2004). The RPM requires a rater to evaluate the target’s relative position in a normal distribution. Raters were presented with a 101-point scale (ranging from 0 to 100). The 15th, 50th, and 85th points on the scale were anchored, respectively, with the terms below average, average for other managers, and above average. A composite measure of managerial job performance was computed by aggregating the seven RPM ratings \((M = 61.55, SD = 13.50)\). The coefficient alpha reliability of the composite measure was .90.

Organizational commitment. Our measures of AC and CC were computed using the 6-item scales recommended by Meyer et al. (1993). The average scores of AC \((M = 5.45, SD = 1.03)\) and CC \((M = 3.84, SD = 1.17)\), and their reliability coefficients of .83 and .80, respectively, are shown in Table 5.

Results

Table 5 shows descriptive statistics and intercorrelations among the variables observed in this sample. The nonsignificant correlation of \(-.10\) between AC and CC compares favorably with the Meyer et al. (2002) meta-analysis, as does the correlation of job performance with AC \((r = .25)\) and CC \((r = -.30)\).

Table 6 shows the regressions of the criterion on AC and linear and nonlinear specifications of CC. Looking across the two models, AC is positively and very robustly related to job performance, which provides support for Hypothesis 1c. As for CC, Model 1 shows a significant negative finding. Forcing a nonlinear relationship between CC and job performance in Model 2, however, improves the predictive power of this variable. Consistent with Hypothesis 2c, we find a negative-sloped relationship with job performance through much of the range of CC, with this relationship tapering off or flattening at higher values. That this effect is found among employees whose average level of CC is substantially lower than in the other samples helps dispel concerns that our findings are an artifact of ceiling effects.

Figure 3 shows a plot of the predicted values of job performance at different levels of both forms of commitment. The nonlinear Model 2 plot of CC predicts 154% more variation in job performance than the linear plot of this same variable, and between 166% and 131% more than AC in Models 1 and 2, respectively. Once again, this underscores how seriously the linear model underestimates the effect size of CC on work outcomes, in this case job performance.

Supplementary Analyses: Samples 1–3

We conducted several supplementary analyses as a check on the robustness of our findings. First, because of the possibility that AC might also have nonlinear relations with the criterion measures, we estimated equations in which a higher order AC term was included with CC alone, as well as equations in which higher order terms for both forms of commitment were considered simultaneously. In no case was the higher order AC term significant at conventional levels. With the exception of a \(p\)-value < .10 for the second-order CC term when estimated with a second-order AC term in the same job performance equation, the pattern of nonlinearity for CC was not brought into question. Given the susceptibility of small samples to multicollinearity, and our evidence that a linear model is the correct functional form for modeling relations between AC and work outcome, this exception does not compromise our conclusions. We also estimated equations with and without gender and years of service, to control unwanted sources of variation in our criteria. Our conclusions did not vary by the inclusion or exclusion of either of these variables. For ease of exposition, we chose to report the results with no control variables, but the larger set of results is available upon request. Finally, because tests of higher order relationships can also contribute to multicollinearity, we applied a process of centering predictor variables before squaring them, which has the effect of reducing intercorrelation between the first- and second-order terms of the same variable (Cohen et al., 2003). This had no noticeable impact on our results and did not alter our conclusions. As the uncentered results are more readily subject to interpretation and comparison, we chose to report them instead.

Discussion and Conclusions

In this study we tested for linear and nonlinear relations between AC and CC, respectively, and three outcomes that we measured in different settings. Using the linear model, we replicated the most common observation in the literature—namely, that AC is more

<table>
<thead>
<tr>
<th>Variable</th>
<th>(B)</th>
<th>(SE)</th>
<th>(B)</th>
<th>(\beta)</th>
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</thead>
<tbody>
<tr>
<td>Model 1</td>
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<td></td>
</tr>
<tr>
<td>Constant</td>
<td>57.74</td>
<td>9.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>2.92</td>
<td>1.43</td>
<td>0.22*</td>
<td></td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>-3.15</td>
<td>1.26</td>
<td>-0.27</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
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<tr>
<td>Constant</td>
<td>85.56</td>
<td>16.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>3.69</td>
<td>1.45</td>
<td>0.28*</td>
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<tr>
<td>Continuance commitment</td>
<td>-21.31</td>
<td>9.14</td>
<td>-1.85*</td>
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<tr>
<td>Continuance commitment squared</td>
<td>2.34</td>
<td>1.17</td>
<td>1.60*</td>
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</table>

Note. \(N = 76. F(2, 73) = 5.79, p < .01, R^2 = .14,\) for Model 1. \(F(3, 71) = 5.36, p < .01, R^2 = .18,\) for Model 2. *\(p < .05.\) **\(p < .01.\)
strongly related to work outcomes than is CC (Meyer et al., 2002). Introducing a higher order CC term into the same equation, however, we found that the linear model seriously understates the magnitude of effect of CC on turnover cognitions, absence frequency, and job performance.

Our results suggest that caution should be exercised in the development of commitment theory based on empirical generalizations gleaned from the linear model, at least insofar as suspected reasons for the greater relative strength of association of AC over CC with work outcomes are concerned. Meyer and Herscovitch (2001) proposed that this may result from the unequal binding forces of desire and perceived cost under AC and CC, respectively. Rather than suggesting unequal forces at play, however, our results are more consistent with the integrative model of commitment and motivation advanced by Meyer et al. (2004), which suggests that AC and CC employees are simply motivated to behave in different ways. Whereas AC employees experience a stronger internal drive and promotion focus, leading to a desire to fulfill the maximum level of accomplishment under the terms of their commitment, CC employees experience a stronger external drive and prevention focus, leading them to fulfill only the minimally acceptable requirements necessary for remaining safely in the organization.

Our results raise as many questions as they help answer, providing fertile ground for future research. One important issue derives from our inability to empirically examine the links between AC and CC and the different motivational mindsets proposed by Meyer et al. (2004) in their integrative model of commitment and motivation. Preliminary evidence suggests that measures of AC and CC correlate, as predicted, with measures of autonomous and extrinsic regulation, respectively (Gagné, Martens, Donia, & Boies, 2006; Maltin, Meyer, Kumsar, Jackson, & McInnis, 2006). However, future research examining relations between AC and CC, autonomous and external motivation, goal setting, and ultimately work outcomes is needed to validate these arguments.

Another issue relates to our exclusion of the third and potentially most complex component in Meyer and Allen’s (1991, 1997) model, normative commitment (NC). One concern regarding the NC component has been its relatively high correlation with the other forms of commitment (e.g., Meyer et al., 2002). Recent work has revealed that NC appears to share antecedents with AC and CC (Powell & Meyer, 2004), and is hypothesized to reflect elements of promotion and prevention focus (Meyer et al., 2004), as well as a specific motivational mindset (introjected regulation) that shares elements of both intrinsic and extrinsic motivation. (For preliminary evidence of these relations, see Gagné et al., 2006.) Thus, in light of our current findings, it is unclear whether NC will exhibit linear or nonlinear effects with behavioral criteria. There is some preliminary evidence that the nature of NC–behavior relations may be particularly sensitive to the commitment context (see Gellatly, Meyer, & Luchak, 2006; Meyer, Becker, & Van Dick, 2006). Individuals who experience high NC in a context of low AC and high CC may experience feelings of indebted obligation that would be consistent with a motivational mindset characterized by external control and prevention focus. However, individuals who experience high NC in a context of high AC may experience a moral imperative to stay or act (i.e., “This is the right thing to do, and I want to do it”) that would be consistent with intrinsic motivation and promotion focus. How the commitment context shapes the nature of NC–behavior relations is a question for future research.

Future research should also be devoted to examining nonlinear relations between organizational commitment and work attitudes and behaviors not examined in this study (e.g., organizational citizenship behavior), as well as to studying relations across different settings. This will better establish the boundary conditions for nonlinear effects across different commitment components, criterion measures, and research settings. Our results also suggest a new route for studying the consequences of commitment profiles through first- and/or second-order interaction effects. Nonlinear interactions between the different components of commitment may

Figure 3. Predicted job performance as a function of affective commitment (AC) and linear and nonlinear representations of continuance commitment (CC). For organizational commitment, higher numbers indicate stronger feelings of commitment. Job performance refers to the average relative percentile ratings for the composite performance measure; higher numbers indicate higher relative performance.
help clarify the inconsistent research findings in this area to date (see Meyer & Herscovitch, 2001).

Finally, our results have implications for practice in that they remind organizations that changes in CC will have their most pronounced effects on work outcomes at low to moderate levels. This suggests that the potential behavioral offsets arising from human resource management (HRM) practices that create side bets (Becker, 1960) may occur at lower levels of CC than previously understood, requiring managers to be more vigilant about how this form of commitment is created. Also, investments in CC beyond certain levels will show diminishing returns, so that an excess of control-type qualities in an HRM system (Arthur, 1994) is not likely to be cost-effective, and the bundling of such practices (MacDuffie, 1995) may not necessarily create synergistic effects. Lastly, our results suggest that AC does not uniformly lead to better work outcomes than CC and that, at higher levels, both arguably lead to similar results. This lends some credence to arguments that principles of equifinality apply to HRM practices. To the extent that HRM practices operate through the commitment mechanism, motivating through CC or AC may have equally efficacious results for organizations, depending on the context.

References


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