

Behavioral Research in Accounting
Volume 10, 1998
Printed in USA

The Existence of Multiple Measures of Organizational Commitment and Experience-Related Differences in a Public Accounting Setting

Alice A. Ketchand
Sam Houston State University

Jerry R. Strawser
University of Houston

ABSTRACT

Previous accounting research has examined the effect of organizational commitment (OC) on important organizational consequences, such as job satisfaction and turnover intentions. To measure an individual's OC, these studies relied upon the Organizational Commitment Questionnaire (OCQ) developed by Porter et al. (1974), which operationalizes OC as a unidimensional construct. Subsequent research in non-accounting settings, however, has established the possible existence of two (Meyer and Allen 1984) and three (McGee and Ford 1987) distinct dimensions of OC. The purpose of this paper is to investigate whether a multidimensional measure of OC exists in a public accounting setting. The results of a sample of 63 less-experienced and 228 more-experienced public accounting professionals indicate that multiple measures of OC appear to exist. In addition, our results suggest that these dimensions of OC differ across experience levels and have differing effects with important organizational consequences (job satisfaction and turnover intentions) across experience levels.

The high level of turnover encountered in the public accounting profession is well documented (Snead and Harrell 1991; Gaertner et al. 1987; Doll 1983). Previous accounting research has sought to identify and investigate how various factors result in the formation of accountants' intentions to seek alternative employment. These studies have concluded that turnover intentions (and, eventually, actual turnover) are the result of both organizational and personal characteristics (Bline et al. 1991; Snead and Harrell 1991; Harrell 1990; Rasch and Harrell 1990; Meixner and Bline 1989; Colarelli et al. 1987; Harrell et al. 1986; Lachman and Aranya 1986a, 1986b; Aranya et al. 1982).

One characteristic that has been consistently found to significantly influence accountants' turnover intentions is organizational

The authors wish to acknowledge the helpful comments of the two anonymous reviewers and the editor, Don Finn. Data are available from either author upon request.

commitment (OC). OC has traditionally been viewed as a unidimensional construct (Porter et al. 1974); however, recent evidence suggests that individuals develop commitment to a particular organization through multiple dimensions (or sources). While studies in organizational behavior conclude that at least two distinct sources of OC exist (Meyer and Allen 1984), the simultaneous existence of multiple dimensions of OC in an accounting setting has only recently been explored (Kalbers and Fogarty 1995). Despite the identification of these multiple sources of OC, accounting research investigating the effect of OC on such important consequences as turnover intentions (e.g., Gregson 1992; Blin et al. 1991; Harrell 1990) has typically relied on the unidimensional OC developed by Porter et al. (1974).

Meyer and Allen (1991) caution that all forms of commitment are not alike and that organizations attempting to retain their employees by strengthening levels of OC should be aware of the nature of different forms of commitment. Previous findings that multiple dimensions of OC have different relations to turnover intentions and other work-related behaviors (e.g., Dunham et al. 1994; Hackett et al. 1994) suggest that a multidimensional approach to OC provides a more accurate understanding of an individual's involvement with his/her organization. If multiple dimensions of OC exist in an accounting setting and if these dimensions relate differentially to turnover intentions, previous accounting research relying on unidimensional measures of OC may fail to depict accurately the process through which OC affects turnover. As a result, the conclusions provided by these studies may not provide accounting firms and other employers of accountants the guidance needed to reduce fully the high incidence of turnover (if desired).

This paper attempts to address this issue by investigating the potential existence of multiple dimensions of OC in a public accounting setting. Multidimensional conceptualization of OC may provide the basis for a more complete understanding of the development and maintenance of OC and that the development and effect of these dimensions of OC on important organizational consequences may change over accountants' careers.

DIMENSIONS OF ORGANIZATIONAL COMMITMENT

The concept of OC is based on the premise that individuals form an attachment to an organization. OC is defined as the "relative strength of an individual's identification with and involvement in a particular organization" (Porter et al. 1974, 604). Porter et al. (1974) conclude that OC is characterized by: (1) a belief in and acceptance

of organizational goals and values; (2) the willingness to exert individual effort toward the accomplishment of organizational goals; and, (3) a strong desire to maintain organizational membership. Porter et al.'s (1974) definition of OC has been developed into a widely-used instrument (the Organizational Commitment Questionnaire, or OCQ) (Mowday et al. 1982; Porter et al. 1974). The OCQ (or a shortened version thereof) has served as the basis for measuring OC in the majority of organizational behavior (e.g., Gregersen and Black 1992; Mathieu and Farr 1991; Mathieu 1991; Williams and Hazer 1986; Bateman and Strasser 1984) and accounting (e.g., Bline et al. 1991; Harrell 1990; Ferris and Aranya 1983; Norris and Niebuhr 1983; Aranya et al. 1982) studies.

While the OCQ initially operationalized OC as a single construct, some studies using this instrument have suggested the presence of multiple dimensions of OC (Bar-Hayim and Berman 1992; Mayer and Schoorman 1992; Angle and Perry 1981). These and other studies have shown that commitment to the employing organization develops through both an individual's identification with the goals of the organization (affective commitment)¹ and the costs associated with leaving the organization (the "side-bets" theory, or continuance commitment) (Allen and Meyer 1990). Individuals whose OC is based on affective commitment continue employment with the organization because of their desire to do so; this desire is based on the individual's degree of identification with the organization and his or her willingness to assist the organization in pursuing its goals (Hackett et al. 1994). Affective commitment views OC as an attitudinal emotion expressed by the individual toward the employing organization.

In contrast, an individual whose primary form of commitment to the organization is through continuance commitment remains with the organization because he/she needs to do so. Continuance commitment is based on Becker's (1960) theory of side-bets: as individuals remain in the employ of an organization, they accumulate greater benefits (or incur greater costs at departure) that may dissuade them from seeking alternative employment. Potential side-bets that may result in high levels of continuance commitment include the time and effort spent acquiring non-transferable skills and the loss of attractive benefits or seniority-based privileges (Meyer and Allen

¹ Affective commitment has also been referred to as value commitment (Mayer and Schoorman 1992; Angle and Perry 1981), normative commitment (O'Reilly et al. 1991; Caldwell et al. 1990), or identification commitment (Bar-Hayim and Berman 1992). The aspect of OC corresponding to an individual's emotional attachment to the organization will be referred to as affective commitment throughout the remainder of this paper.

1991). Continuance commitment is seen as developing from an employee's calculative response toward continuing employment with the organization. Based on previous research (Dunham et al. 1994; Hackett et al. 1994), the OCQ appears to be much more closely related to affective commitment (scale correlations (r 's) ranging from 0.71 to 0.87) than continuance commitment (r 's ranging from -0.01 to -0.23). Further, the results of previous research indicate that affective commitment appears to be only moderately related to continuance commitment (r 's ranging from -0.20 to 0.24).

Additional studies have suggested that continuance commitment may occur through one of two separate phenomena: (1) the lack of viable job alternatives (low alternatives commitment) and (2) the high personal sacrifice associated with leaving the organization (high sacrifice commitment) (Meyer et al. 1990; McGee and Ford 1987). Evidence relating to the separate existence of these subscales of continuance commitment is somewhat mixed. For example, Hackett et al. (1994) find that subdividing continuance commitment into the two components produces a slightly better data fit; however, the low alternatives and high sacrifice subscales are highly correlated (average $r = 0.59$ across their subsamples) and are not differentially related to other variables. These findings question the separate existence of the subcomponents of continuance commitment. In contrast, Dunham et al. (1994) found high sacrifice commitment and low alternatives commitment to have different relationships with important antecedents and consequences of OC (including turnover intentions). In sum, evidence supportive of two- (affective and continuance commitment) and three-dimension (affective commitment, low alternatives commitment and high sacrifice commitment) measures of OC has been provided.

To date, turnover research in accounting, however, continues to rely on the measure of OC provided by the OCQ (Gregson 1992; Blin et al. 1991; Harrell 1990; Colarelli et al. 1987; Harrell et al. 1986; Lachman and Aranya 1986a, 1986b; Norris and Niebuhr 1983).² Dunham et al. (1994) conclude that previous research using the OCQ is only able to examine the affective component of OC. While prior accounting research concludes that OC is highly related to turnover

² One exception is Kalbers and Fogarty (1995), who examined the relationship between various dimensions of professionalism and affective and continuance commitment for a sample of internal auditors. However, their study did not establish the validity of a two-dimensional construct of OC. Other studies investigating alternatives to the OCQ in an accounting setting (Ferris and Aranya 1983; Shaub 1991) evaluated a four-item alternative to the OCQ that was developed by Hrebiniak and Alutto (1972) and later modified by Hunt et al. (1984). Similar to findings for the OCQ, Meyer and Allen (1984) found that the Hrebiniak-Alutto scale related primarily to affective (and not continuance) commitment.

intentions (and actual turnover), the failure to consider multiple dimensions of OC may prevent accounting firms from identifying methods of increasing the commitment held by their employees (and reducing their desire to seek alternative employment). For example, accounting firms have recently taken innovative measures to provide their employees with higher levels of non-salary benefits (flexible work schedules, resources and referral services for children and elders, leaves of absence) to increase their retention of valued employees (Hooks 1996); however, research utilizing the OCQ is unable to determine whether the increased levels of OC (continuance commitment) that would presumably result from these efforts will achieve the desired outcomes (increased levels of job satisfaction and reduced turnover intentions).

While previous organizational behavior research has identified distinct components of OC and their effects on important organizational consequences, these findings cannot necessarily be extrapolated into public accounting. The unique "up-or-out" structure of public accounting and the desirability and transferability of accounting skills (Jackofsky et al. 1986) may result in different relative levels of affective and continuance commitment vis-à-vis the subject groups examined in other commitment studies. For example, previous organizational research examining the existence of multiple measures of OC has utilized nurses, college faculty, policemen and bus drivers as subjects (Dunham et al. 1994; Hackett et al. 1994; Meyer et al. 1993; McGee and Ford 1987). In comparison to these subject groups, the public accounting profession is characterized by high technical requirements, low levels of non-salary benefits (compared to salary-related benefits), a high client-service orientation, and the efficiency demands of a business setting. Moreover, the high levels of training, required continuing professional education, and diverse work experience across a number of industries that characterize the public accounting profession makes CPAs highly mobile. These differences, along with variations in the range of correlations across different subject groups (Dunham et al. 1994, 374), indicate that the results of previous organizational studies may not necessarily be applicable to public accountants. While Kalbers and Fogarty (1995) suggest that the nature of the public accounting profession does not lend itself to high levels of continuance commitment, this expectation has not been verified nor has its potential implications been explored. Examining the potential existence of multiple measures of OC in a public accounting setting is one objective of the current study.

While meta-analyses (Mathieu and Zajac 1990) show a modest positive relationship for both affective and continuance commitment and organizational tenure ($r = 0.15$ and 0.20 , respectively), the

results of prior accounting research (based on the OCQ) is mixed (Aranya et al. 1986; Aranya and Ferris 1984). Utilizing two items comprising the OCQ, Ferris (1981) found that the nature of affective commitment differed between job levels. For Ferris' junior-level sample (i.e., less-experienced professionals), OC primarily represented the willingness to exert effort on behalf of the organization; for the senior-level sample (i.e., more-experienced professionals), OC was characterized by a desire to maintain membership with the organization. This finding suggests that the nature of commitment changes over an individual's career. For example, it is possible that the source of more-experienced employees' commitment shifts from an emotional response to the organization (affective commitment) to a more calculative consideration of the costs and benefits of maintaining membership (continuance commitment). However, the fact that multiple dimensions of OC have not been extensively investigated in a public accounting setting leaves this question unanswered.

METHODOLOGY

Evaluating Dimensions of Organizational Commitment

No absolute criteria can unequivocally establish the existence of multiple measures of OC in public accounting; however, support is provided if affective commitment items are highly correlated with one another (convergent validity), but not highly correlated with continuance commitment items (discriminant validity). Additional evidence of multiple measures of OC is provided if the strength of the relationships between different components of OC and other variables differ. For example, as noted later, job satisfaction is expected to be positively related to affective commitment but unrelated to continuance commitment. If such relationships are observed, further support for the convergent and discriminant validity of the two measures of OC is provided. This approach to evaluating the existence of unique components of OC is similar to that used by Bline et al. (1991) in evaluating the distinction between OC (based on the OCQ) and professional commitment. In this study, we further evaluate the potential existence of multiple measures of OC for accountants having two different levels of experience.

Measures of Interest

Affective and continuance commitment were measured using two eight-item scales (the Affective Commitment Scale (ACS) and Continuance Commitment Scale (CCS)) developed by Meyer and Allen (1984). The items comprising the ACS and CCS are shown in the

appendix.³ The measures of OC examined in this study were based on subject responses to a series of items using a seven-point Likert scale, with endpoints of 1 (strongly disagree) to 7 (strongly agree). In addition to a two-dimension construct of OC, continuance commitment was evaluated further to examine the possible existence of the two sub-components identified by previous organizational researchers (high sacrifice commitment and low alternatives commitment). The eight-item CCS includes four items that relate to high sacrifice commitment (e.g., "It wouldn't be too costly for me to leave my firm in the near future"); the remaining four items represent low alternatives commitment (e.g., "Right now, staying with my firm is a matter of necessity as much as desire"). Thus, two possible representations of OC will be investigated in this study: (1) a two-dimension construct (affective and continuance commitment) and (2) a three-dimension construct (affective commitment, high sacrifice commitment and low alternatives commitment). The psychometric properties of both the ACS and CCS have been extensively evaluated in a non-accounting setting (Meyer et al. 1991; Allen and Meyer 1990; Meyer et al. 1989).

To determine whether the various measures of OC are differentially related to hypothesized consequences, the research instrument elicited measures of job satisfaction and turnover intentions. These measures were selected for examination in this study because of their high documented level of association with OC in an accounting setting (Gregson 1992). Job satisfaction was measured using six items drawn from Rusbult and Farrell (1983), which included both direct ("All things considered, I am extremely satisfied with my current job") and indirect ("If a good friend of mine told me that he/she was interested in a job like mine, I would not recommend it") items. The internal reliability of the measure of job satisfaction in this study is acceptable ($\alpha = 0.90$ and 0.87 for less- and more-experienced subjects, respectively). Turnover intentions were measured using responses to a single item: "It is highly likely that I will actively seek employment at another organization within the next year" (Ferris and Aranya 1983; Aranya et al. 1982). While this single-item measure did not allow an internal reliability to be determined, each subject's response to the above item was verified by correlating it with the following response: "If your continued employment at your current organization were entirely up to you, what is the probability (expressed

³ Consistent with the original scales, several items were reverse-scored in our research instrument. For all variables examined in this study, the original responses were transposed so that higher scores represented higher levels of all measures. The original responses to the reverse-scored items were in the opposite direction (i.e., a lower response represented a higher level of a measure).

as a percentage) that you would be working there this time next year?" The significant, negative correlation between these two items ($r = -0.90$ and -0.70 for less- and more-experienced subjects, respectively; both $p < 0.0001$) provides evidence of high subject-response consistency.

Sample

Our original sample frame consisted of 5,000 CPAs employed throughout the United States. To control for the effect(s) of position level and area of concentration on our results, we only included senior accountants who had at least 50 percent or more of their work concentrated in the auditing area in our final sample. We chose senior accountants as the appropriate target sample because previous studies (Benke and Rhode 1984; Istvan and Wollman 1976) indicate that the turnover intentions of higher-level employees (such as audit managers and partners) often reflect better economic opportunities and not lower level(s) of commitment. In addition, Harrell (1990) notes that most of the migration of CPA professionals occurs during their earlier years of employment. Thus, accounting seniors represent an important experimental group for examining multiple measures of OC. Because our sample was drawn from a mailing list of CPAs (who are required to meet experience requirements for certification), the position of senior accountant was the most junior position level for which a reasonable number of responses was received.

A total of 1,281 responses were received over two mailings, representing an overall response rate of 25.6 percent.⁴ Of these respondents, 291 individuals met the criteria for inclusion in the sample, as shown below:

Total Respondents	1,281
Responses from Staff Accountants	(16)
Responses from Managers	(670)
Seniors Working in Other Areas (e.g., Tax)	(196)
Unusable responses	<u>(108)⁵</u>
Final Sample Size	<u>291</u>

⁴ Since the number of individuals in the AICPA mailing list that met our selection criteria (senior accountant having at least 50 percent of their work in auditing) was unknown, we were unable to calculate an effective response rate for the target subjects of interest.

⁵ Unusable responses included responses from accountants no longer in public practice or responses that omitted a large percentage of the requested information.

To determine whether the subjects' level of experience influenced the presence of and relationships involving different measures of OC, the above sample was classified into less- (two years of experience or less) and more-experienced (greater than two years of experience) partitions; the number of subjects in each partition was 63 and 228, respectively. While this cutoff may appear somewhat arbitrary, it parallels the experience level that has served as the focus of previous studies of the organizational commitment of public accounting professionals (Pasewark and Strawser 1996; Harrell 1990).⁶

The demographic information for the two groups of subjects participating in this study is shown in table 1. Respondents were employed throughout the United States, with all geographic regions represented in the sample. On an overall basis, our sample consisted of approximately 55 percent males and 44 percent females. The subjects had been with their current employer for an average of 4.58 years and spent over 78 percent of their time in the auditing function. Finally, table 1 reveals that our sample was predominantly comprised of CPAs affiliated with local firms (53.26 percent) but included CPAs affiliated with regional, national and Big 6 firms as well. To determine whether the relationships examined herein are affected by CPA firm affiliation, all subsequent analyses were performed after controlling for the type of CPA firm; no differences in significance or interpretation were noted. Comparing the demographic characteristics of the two subjects groups revealed significant differences only for experience (which was by design); the lack of significant differences for the remaining demographic characteristics minimizes the likelihood that any differences between groups are the result of demographic differences.

Nonresponse bias was evaluated by comparing the subjects' responses for the OC subscales, job satisfaction and turnover intentions between (1) individuals responding to the first mailing and those responding to the second mailing and (2) individuals responding relatively early in each mailing and those responding relatively later in each mailing. Using multivariate analysis of variance (MANOVA), no significant differences existed (at $\alpha = 0.05$); this finding suggests that the effect of nonresponse bias on our results (if any) was minimal.

⁶ To determine how this cutoff influenced our results, we re-performed all subsequent analyses after omitting the responses of subjects having three and four years of experience, resulting in 63 less-experienced and 145 more-experienced subjects. With the exception of differences noted in footnote 10, the results of all analyses were quantitatively similar. Thus, the decision to define a more-experienced subject as someone having greater than two years of experience does not appear to influence our results.

TABLE 1
Demographic Profile of Less- and More-Experienced Subjects

	Less- Experienced (n = 63)	More- Experienced (n = 228)	Overall
Experience with Current Employer (Yrs)			
Mean	1.48	5.44	4.58
Std. Dev.	0.54	2.30	2.62
Proportion of Work Time in Auditing (%)			
Mean	81.38	77.38	78.24
Std. Dev.	17.76	18.07	18.05
Geographic Region (%)			
Northeast	38.10	23.68	26.80
Southeast	15.87	21.50	20.27
North Central	20.63	33.77	30.92
South Central	12.70	8.33	9.27
Northwest	4.76	6.14	5.84
Southwest	7.94	6.58	6.90
Gender (%)			
No Response	0.00	1.04	1.03
Male	49.20	57.01	55.33
Female	50.80	41.95	43.64
Firm:			
No Response	0.00	0.44	0.34
Local	58.73	51.75	53.26
Regional	15.87	19.30	18.56
National	11.11	5.26	6.52
Big 6	14.29	23.25	21.32

RESULTS

Factor analysis was used to determine whether the items representing affective and continuance commitment reflected different measures of OC. Since these dimensions were not expected, *a priori*, to be highly correlated, an orthogonal (varimax) rotation was performed on the original factor pattern. Based on the eigenvalue criterion, a four-factor solution was obtained. Item CONTIN8 ("I am not afraid of what might happen if I quit my job without having another one lined up") loaded highly on a separate factor (loading of 0.81 for both groups); the loadings for the remaining items on this factor were relatively small (average loadings of 0.17 and 0.11 for less- and more-experienced subjects, respectively). In addition, the correlations of CONTIN8 with the remaining continuance commitment items were

quite low (ranging from 0.06 to 0.20) and may reflect the fact that CONTIN8 incorporates an individual's propensity for risk; that is, an individual may remain with an organization not because of lower alternative job opportunities or high sacrifices of job-related benefits, but because of their unwillingness to be unemployed for even short periods of time. Given the rather distinct nature of this item, the lack of meaningful loadings with other items, as well as the precedent established by previous studies (Meyer et al. 1993; McGee and Ford 1987), the factor analysis was re-performed without CONTIN8. The results of this factor analysis (based on both a two- and three-factor solution) are shown in table 2.⁷

Based on the two-factor solutions (the left set of columns in panels A and B of table 2), both groups of subjects appeared to recognize distinct sources of commitment similar in nature to affective and continuance commitment. For both groups of subjects, all affective commitment items loaded exclusively (factor loadings in excess of 0.40) on the first factor; most of these loadings were quite high (ten of the 16 loadings were in excess of 0.70).⁸ In addition, the affective commitment items had relatively low cross-loadings on the second factor (highest absolute cross-loading of 0.28). With respect to the continuance commitment items, item CONTIN1 unexpectedly loaded higher with the affective commitment items than the continuance commitment items for both groups of subjects. Based on the sign and magnitude of the factor loadings, CONTIN1 ("Right now, staying with my firm is a matter of necessity as much as desire") appears to reflect both high levels of continuance commitment and low levels of affective commitment. The remaining continuance commitment items loaded highest on a separate factor and, with the exception of CONTIN2, did not have loadings in excess of 0.40 on the factor containing the affective commitment items. These results, coupled with the acceptable levels of internal reliabilities for the affective ($\alpha = 0.88$ for both groups) and continuance ($\alpha = 0.72$ and 0.73 for less- and more-experienced subjects, respectively) commitment items is consistent with the existence of these two distinct sources of OC for both groups of subjects.

⁷ With the exception of CONTIN3 (which had loadings in excess of 0.40 with CONTIN8), no differences were noted between the 16-item and 15-item scales in the grouping of items which loaded together in the factor analysis. Thus, the general nature of the factor analyses were not affected by the exclusion of CONTIN8.

⁸ Hair et al. (1992) provide the following criteria for interpreting the significance of factor loadings: (1) 0.30 (significant); (2) 0.40 (more important); and, (3) 0.50 (very significant). However, in interpreting the results of factor analysis, the number of items, the sample size and the loadings of an item on other factors must be considered in evaluating the magnitude of the factor loadings.

TABLE 2
Factor Analysis for ACS and CCS Items
Two- and Three-Factor Solutions

	Two-Factor ^a		Three-Factor ^a		
Panel A: Less-Experienced Subjects					
AFFECT1	0.76	0.01	0.84	0.04	-0.07
AFFECT2	0.82	0.02	0.80	-0.01	0.20
AFFECT3	0.82	0.02	0.81	-0.00	0.17
AFFECT4	0.75	0.01	0.82	0.03	-0.01
AFFECT5	0.78	0.14	0.68	0.06	0.43
AFFECT6	0.68	-0.10	0.54	-0.20	0.48
AFFECT7	0.49	0.12	0.26	-0.01	0.67
AFFECT8	0.67	0.25	0.55	0.17	0.46
CONTIN1 (L)	-0.52	0.45	-0.50	0.48	-0.09
CONTIN2 (L)	-0.42	0.65	-0.41	0.66	0.00
CONTIN3 (H)	0.28	0.47	0.32	0.48	0.02
CONTIN4 (H)	0.01	0.70	-0.02	0.67	0.20
CONTIN5 (L)	-0.07	0.85	-0.02	0.87	0.00
CONTIN6 (H)	0.12	0.77	0.17	0.79	0.02
CONTIN7 (H)	0.19	0.35	-0.11	0.18	0.81
Eigenvalue	4.82	2.89	4.34	2.82	1.86
Proportion of Variance					
Explained	32.13	19.26	28.93	18.80	12.40
Total Variation					
Explained		51.39			60.13
Panel B: More-Experienced Subjects					
AFFECT1	0.82	0.01	0.77	-0.27	0.06
AFFECT2	0.79	-0.06	0.79	-0.21	-0.06
AFFECT3	0.81	0.00	0.83	-0.16	-0.03
AFFECT4	0.81	-0.04	0.85	-0.13	-0.09
AFFECT5	0.74	-0.01	0.58	-0.47	0.18
AFFECT6	0.68	-0.07	0.53	-0.46	0.12
AFFECT7	0.57	0.09	0.60	-0.07	0.06
AFFECT8	0.55	0.28	0.56	-0.04	0.27
CONTIN1 (L)	-0.63	0.32	-0.41	0.63	0.06
CONTIN2 (L)	-0.43	0.60	-0.17	0.76	0.28
CONTIN3 (H)	-0.08	0.49	-0.17	0.00	0.60
CONTIN4 (H)	0.08	0.66	0.02	0.06	0.73
CONTIN5 (L)	-0.38	0.59	-0.11	0.76	0.25
CONTIN6 (H)	0.17	0.72	0.19	0.21	0.69
CONTIN7 (H)	0.20	0.70	0.22	0.19	0.68
Eigenvalue	5.06	2.59	4.25	2.23	2.13
Proportion of Variance					
Explained	33.73	17.26	28.33	14.87	14.20
Total Variation					
Explained		50.99			57.40

^a All absolute factor loadings in excess of 0.40 are boldfaced.

AFFECT = Affective Commitment Items.

CONTIN(L) = Continuance Commitment (Low Alternatives) Items.

CONTIN(H) = Continuance Commitment (High Sacrifice) Items.

The results for the three-factor solutions are presented in the right set of columns of table 2. For affective commitment, the results are generally consistent with those for the two-factor solution and support the *a priori* nature of affective commitment (although some absolute cross-loadings in excess of 0.40 were noted in the three-factor solution). With the exception of AFFECT7 for less-experienced subjects, all affective commitment items loaded highest on the hypothesized factor (lowest loading of 0.53). In contrast, the two groups of subjects appeared to differ markedly with respect to their conceptualization of the continuance commitment dimension(s). Less-experienced subjects (panel A of Table 2) did not appear to distinguish between the two dimensions of continuance commitment; of the seven continuance commitment items, six loaded highly (loading of at least 0.48) on the same factor. Inexplicably, the remaining continuance commitment item (CONTIN7) loaded singly on a third factor along with four of the affective commitment items. These findings suggest that less-experienced subjects' conceptualizations of continuance commitment do not distinguish between low alternatives and high sacrifice commitment. Conversely, the factor loadings for the more-experienced subjects (panel B of Table 2) were consistent with the three-dimension conceptualization of OC, as the three low alternatives items (CONTIN1, CONTIN2, and CONTIN5) and four high sacrifice items (CONTIN3, CONTIN4, CONTIN6, and CONTIN7) loaded highly (lowest loading of 0.60) on separate factors. The lack of high cross-loadings (only CONTIN1 had an absolute loading on another factor of greater than 0.40) was further indicative of the three-factor conceptualization of OC.

The internal reliabilities of the low alternatives and high sacrifice components of OC are consistent with the results of the factor analysis. While the reliabilities for low alternatives commitment for less-experienced and more-experienced subjects are almost identical and appear to be acceptable (based on Nunnally (1978)) ($\alpha = 0.71$ and 0.72 , respectively), differences were noted with regard to high sacrifice commitment. For high sacrifice commitment, the reliability for more-experienced subjects ($\alpha = 0.65$) exceeded that for less-experienced subjects ($\alpha = 0.59$), suggesting that this former group of subjects more clearly conceptualizes high sacrifice commitment. While these measures are marginal to low based on Nunnally (1978), they compare favorably to those observed by Dunham et al. (1994), who found reliabilities for low alternatives (high sacrifice) commitment in their subsamples ranging from 0.58 to 0.78 (0.54 to 0.75). In addition, these reliabilities appear to be reasonable, given the small number of items (three for low alternatives commitment and four for high sacrifice commitment) comprising the constructs (McGee and Ford 1987).

In sum, the results for the two-factor solution generally support the existence of affective and continuance commitment dimensions for both groups of subjects. With respect to the three-factor solution, our results indicate that only more-experienced subjects separately identify the two components of continuance commitment (high sacrifice and low alternatives commitment). However, the fact that the two- and three-factor solutions explain a modest degree of variation in the original items (from between 50.99 and 60.13 percent) indicates that the ACS and CCS may reflect other dimensions of OC that have not been identified by previous research.

Dimensions of OC

To determine the nature of the OC held by senior accountants having different levels of experience, the items comprising the *a priori* dimensions of OC were summed; the mean levels of these dimensions are summarized in table 3.⁹ As shown in panel A of table 3, the primary difference in the development of OC between less- and more-experienced subjects relates to the dimension(s) of continuance commitment. No differences in affective commitment were noted between the two subject groups ($p = 0.97$). In contrast, more-experienced subjects appear to have developed significantly higher levels of continuance commitment than less-experienced subjects; these levels of continuance commitment include higher levels of both low alternatives commitment ($p = 0.02$) and high sacrifice commitment ($p = 0.01$). Thus, it appears that more-experienced subjects perceive fewer viable job alternatives and that seeking these alternatives would involve the sacrifice of important benefits and privileges. Conversely, the relatively low levels of these dimensions of OC held by less-experienced subjects indicates that a greater number of alternative job opportunities exist and that investigating these opportunities would not involve sacrificing as many benefits or privileges.¹⁰

⁹ This and all remaining analyses are performed using the eight affective commitment items and the seven continuance commitment items other than CONTIN8. Thus, continuance commitment is measured using seven items (CONTIN1–CONTIN7), low alternatives commitment using three items (CONTIN1, CONTIN2 and CONTIN5), and high sacrifice commitment using four items (CONTIN3, CONTIN4, CONTIN6 and CONTIN7). See the appendix for a full list of all scale items.

¹⁰ To provide further insight into the development of organizational commitment, sensitivity analysis was performed by (1) re-dividing our sample at the median (four years of work experience) and (2) omitting subjects having three and four years of experience. This analysis revealed significant differences in only the levels of high sacrifice commitment, with more-experienced subjects possessing significantly higher levels of high sacrifice commitment than less-experienced subjects. Thus, unlike the results in panel A of table 3, no differences in the levels of continuance commitment or low alternatives commitment are found between more- and less-experienced subjects. The implications of these differences are discussed later in this paper.

TABLE 3
Descriptive Information Regarding Subscales of OC
by Level of Experience

Panel A: Descriptive Statistics^a

	Less- Experienced Mean (Std Dev)	More- Experienced Mean (Std Dev)	Significance^b
Affective Commitment	32.90 (11.07)	32.85 (10.30)	0.97 (0.93)
Continuance Commitment	21.57 (7.86)	24.46 (7.56)	0.00 (0.00)
High Sacrifice Commitment	11.92 (4.44)	13.42 (4.78)	0.01 (0.01)
Low Alternatives Commitment	9.65 (4.79)	11.04 (4.50)	0.02 (0.02)

Panel B: Correlations Among Subscales^c

	AC	CC	LA	HS
Affective Commitment (AC)	— [—]			
Continuance Commitment (CC)	-0.05 [-0.26]*	— —		
Low Alternatives Commitment (LA)	-0.29* [-0.52]*	0.87* [0.81]*	— [—]	
High Sacrifice Commitment (HS)	0.22 [0.08]	0.85* [0.83]*	0.47* [0.33]*	— [—]

^a Means are determined by summing the items representing each construct. A total of eight, seven, four and three items are used to represent affective, continuance, high sacrifice and low alternatives commitment, respectively.

^b Significance levels reflect tests of the differences between the mean levels of commitment held by less- and more-experienced employees. Significance levels without parentheses are based on parametric two-sample t-tests; significance levels within parentheses are based on nonparametric Mann-Whitney U tests.

^c Unbracketed correlations represent less-experienced subjects; bracketed correlations represent more-experienced subjects. All correlations represent partial correlations after controlling for age and organizational tenure.

* Significantly different from zero (at $\alpha = 0.05$, two-tailed significance).

The lack of any significant differences for affective commitment across experience levels indicates that this dimension of OC is formed at very early stages of the professionals' careers and does not appear to vary across experience levels. With regard to the results for the

continuance commitment dimension(s), it appears that senior accountants with relatively low levels of experience (two years or fewer) have a wider variety of job alternatives available to them (lower levels of low alternatives commitment); however, as their level of experience increases, the relative attractiveness of these alternatives compared to their present position decreases. This interpretation is consistent with the significant difference in this dimension of OC noted between the more-experienced and less-experienced subjects for our primary sample (see panel A of table 3) and the lack of such a difference in our ancillary analysis (see footnote 10). In addition, this is also consistent with Meyer et al.'s (1990) contention that employees with longer tenure may adapt to and re-define their jobs in such a way as to limit the number of viable job alternatives, resulting in higher levels of low alternatives commitment.

The fact that more-experienced subjects have significantly higher levels of high sacrifice commitment indicates that certain benefits and seniority-based privileges accrue to subjects after they have reached a certain point of service with their firm. The significance of this latter difference for subjects in both our primary and ancillary samples indicates that certain experience-related benefits (such as a potential future promotion to audit manager) may result in the formation of high levels of high sacrifice commitment.

Panel B of table 3 presents the correlations among the scale items for both the two-dimension (affective commitment and continuance commitment) and three-dimension (affective commitment, low alternatives commitment and high sacrifice commitment) measures of OC. As shown therein, consistent with previous research, the correlation between affective commitment and continuance commitment was small and negative ($r = -0.05$ and -0.26 for less- and more-experienced subjects, respectively). The magnitudes of these correlations are consistent with those found in previous organizational studies (r 's ranging from -0.20 (Dunham et al. 1994) to 0.08 (McGee and Ford 1987)). The moderate level of correlation between affective and continuance commitment further suggests the existence of at least two distinct components of OC.

It also appears that differences exist in the relationships involving the two subcomponents of continuance commitment. Consistent with previous organizational research, affective commitment was significantly (negatively) related to low alternatives commitment but not high sacrifice commitment (Dunham et al. 1994; Hackett et al. 1994).¹¹ This finding is also consistent with these studies' conclusion

¹¹ A notable exception is McGee and Ford (1987), who found a positive relationship between affective commitment and high sacrifice commitment. However, it should be noted that McGee and Ford's (1987) measure of high sacrifice commitment differed from that used by Dunham et al. (1994), Hackett et al. (1994) and the current study.

that relationships involving low alternatives commitment and affective commitment were stronger than those involving high sacrifice commitment and affective commitment. The significant correlation between affective commitment and low alternatives commitment indicates that senior accountants who do not have viable job alternatives (higher levels of low alternatives commitment) have lower levels of emotional attachment to the organization (lower levels of affective commitment); this is particularly evident for our more-experienced subsample ($r = -0.52$). While correlation analysis does not permit causation to be inferred, it appears that individuals may continue to remain with their firms because of necessity and not desire. The failure to observe a significant relationship between high sacrifice commitment and affective commitment for either group of subjects suggests that providing benefits or other privileges will not permit firms to build the emotional attachment that is characterized by high levels of affective commitment.

Finally, as with previous studies (Hackett et al. 1994; McGee and Ford 1987), a statistically significant positive correlation was noted between high sacrifice commitment and low alternatives commitment. This correlation indicates that, as subjects have a greater amount of benefits and privileges that would be lost upon separation from the organization (higher levels of high sacrifice commitment), the number of viable job alternatives is relatively low (higher levels of low alternatives commitment). While the statistically significant relationship between low alternatives commitment and high sacrifice commitment raises a question about whether the items measuring these constructs reflect different sources of OC, the relationships between these sources and important organizational consequences (see the following section) indicate that they should be considered separately in evaluating OC.

Relationships with Hypothesized Constructs ***Affective and Continuance Commitment***

A final method of assessing the convergent and discriminant validity of the ACS and CCS is evaluating whether these scales have different relationships with hypothesized constructs. The two constructs examined in this study were job satisfaction and turnover intentions. Previous accounting research has found a strong, positive relationship between job satisfaction and OC (based on the OCQ) (see Gregson (1992) for a summary); as noted earlier, the OCQ reflects the affective dimension of OC (Dunham et al. 1994). Consistent with this notion, Meyer et al. (1993) and Hackett et al. (1994) observed a positive relationship between affective commitment and job satisfaction. The findings related to continuance commitment and job satisfaction are less clear; while consistent negative relationships have been

found, the magnitude of the correlations was lower than that for affective commitment and their statistical significance was mixed (Hackett et al. 1994; Meyer et al. 1993). While the inconsistent results for continuance commitment make it difficult to hypothesize a significant negative relationship between continuance commitment and job satisfaction, the results of these studies (and a meta-analysis of 43 studies (Mathieu and Zajac 1990)) suggest that job satisfaction is positively related to affective commitment and negatively related to continuance commitment. In addition, we expect the relationship between affective commitment and job satisfaction to be stronger than that between continuance commitment and job satisfaction.

Previous accounting research has consistently found a significant, negative relationship between OC (based on the OCQ) and turnover intentions (Gregson 1992). Expectations of the relationship between different types of OC and turnover intentions are less clear than that for satisfaction. While higher levels of OC (derived from any source) are expected to result in lower intentions to seek alternative employment, some indications suggest that affective commitment reduces turnover intentions to a greater extent than continuance commitment. For example, both Dunham et al. (1994) and Hackett et al. (1994) found stronger relationships between affective commitment and turnover intentions than between continuance commitment and turnover intentions. In addition, Meyer et al.'s (1993) results suggest a significant negative relationship between affective commitment and turnover intentions and mixed relationships between continuance commitment and turnover intentions. Based on these studies, as well as meta-analytic work (Mathieu and Zajac 1990), affective commitment is expected to be more negatively related to turnover intentions than continuance commitment.

Panel A of table 4 summarizes the correlations between (1) affective and continuance commitment and (2) job satisfaction and turnover intentions for more- and less-experienced subjects. These results provide additional evidence regarding the convergent and discriminant validity of the ACS and CCS scales for both groups of subjects. As shown in table 4, affective commitment is more strongly related to job satisfaction ($r = 0.76$ and 0.70 for less- and more-experienced subjects, respectively) than continuance commitment ($r = -0.03$ and -0.30 for less- and more-experienced subjects, respectively). Similar to Hackett et al. (1994) and Meyer et al. (1993), a significant negative correlation was observed between continuance commitment and job satisfaction for more-experienced subjects. T-tests comparing the correlation coefficients (Cohen and Cohen 1983) revealed that the relationships involving affective commitment

TABLE 4
Relationship Between Dimensions of OC
and Organizational Consequences^a

Panel A: Affective and Continuance Commitment

	<u>Affective Commitment</u>	<u>Continuance Commitment</u>	<u>t-value^b</u>
Job Satisfaction	0.76* [0.70]*	-0.03 [-0.30]*	5.29* [12.56]*
Turnover Intentions	-0.34* [-0.30]*	0.05 [0.05]	2.21* [3.83]*

Panel B: High Sacrifice and Low Alternatives Commitment

	<u>Low Alternatives Commitment</u>	<u>High Sacrifice Commitment</u>	<u>t-value^b</u>
Job Satisfaction	-0.30* [-0.52]*	0.27* [0.02]	3.20* [6.34]*
Turnover Intentions	0.08 [0.26]*	0.00 [-0.12]	0.44 [4.17]*

^a Unbracketed correlations represent less-experienced subjects; bracketed correlations represent more-experienced subjects. All correlations involving job satisfaction represent partial correlations after controlling for age and organizational tenure; all correlations involving turnover intentions represent partial correlations after controlling for age, organizational tenure and job satisfaction.

^b Represents the test statistic for the hypothesis that the difference in the correlations between the consequence and the measures of OC is significantly different from zero.

* Significantly different from zero (at $\alpha = 0.05$, two-tailed significance).

and job satisfaction were stronger than those involving continuance commitment and job satisfaction.

The results in panel A of table 4 also reveal significant differences in the relationships involving affective and continuance commitment and turnover intentions. As anticipated, a significant negative relationship existed between affective commitment and turnover intentions ($r = -0.34$ and -0.30 for less- and more-experienced subjects, respectively); however, the relationship between continuance commitment and turnover intentions was not significantly different from zero ($r = 0.05$ for both groups of subjects). The lack of a statistically significant relationship involving continuance commitment and turnover intentions is consistent with Meyer et al. (1993) and Hackett

et al. (1994).¹² Once again, t-tests comparing the correlation coefficients indicated a stronger relationship between affective commitment and turnover intentions than continuance commitment and turnover intentions for both groups of subjects.

The above findings provide evidence of the convergent and discriminant validity of the ACS and CCS for both groups of subjects. As shown therein, these two scales (and aspects of OC) have different relationships with two important constructs examined by previous accounting research: job satisfaction and turnover intentions. Combined with the evidence provided by the factor analysis (see the results for the two-factor solution in table 2) and the modest correlation between affective commitment and continuance commitment ($r = -0.05$ and -0.26 for less- and more-experienced subjects, respectively; see table 3), it appears that the ACS and CCS represent two distinct components of OC.

Comparing the relationships involving the two dimensions of OC and job satisfaction and turnover intentions reveals that, with the exception of the relationship between continuance commitment and job satisfaction, OC acts similarly across the two subject groups in influencing important organizational outcomes. T-tests of the differences in the correlations between experience groups revealed that the correlation between continuance commitment and job satisfaction was marginally higher ($t = 1.92$, $p = 0.06$) for more-experienced subjects than less-experienced subjects. The fact that this former correlation was significantly negative ($r = -0.30$) indicates that the higher levels of continuance commitment held by more-experienced subjects is related to lower levels of job satisfaction. These results indicate that more-experienced employees whose commitment to the organization is based on necessity (continuance commitment) are less satisfied with their current position.

Low Alternatives and High Sacrifice Commitment

As with affective and continuance commitment, the convergent and discriminant validity of the two potential components of continuance commitment (high sacrifice and low alternatives commitment) were evaluated by examining the relationships between these components and job satisfaction and turnover intentions. While previous accounting research has not extensively examined relationships involving the two components of continuance commitment and these

¹² Meyer et al. (1993) observed a statistically significant correlation between continuance commitment and turnover intentions for one of their subsamples. However, it is important to note that, similar to our findings, this correlation was positive (i.e., higher levels of continuance commitment resulted in higher turnover intentions).

consequences, differences in relationships involving these components provide some indication that separate components of continuance commitment exist. For example, Hackett et al. (1994) found low alternatives commitment to be negatively related to job satisfaction (r 's ranging from -0.19 to -0.23); however, only weak relationships (r 's ranging from -0.05 to 0.03) between high sacrifice commitment and job satisfaction were noted. In contrast, significant negative relationships between high sacrifice commitment and turnover intentions were observed by Dunham et al. (1994) and Hackett et al. (1994); however, the relationships involving low alternatives commitment were less significant and, in some cases positive (Dunham et al. 1994). While previous research provides no unequivocal expectations involving the relationships among the two sub-components of continuance commitment and job satisfaction and turnover intentions, differential relationships involving these sub-components provide support that accounting research should consider the multidimensional nature of continuance commitment.

The correlations among (1) high sacrifice commitment and low alternatives commitment and (2) job satisfaction and turnover intentions for both groups of subjects are summarized in panel B of table 4. As shown therein, the two components of continuance commitment have markedly different relationships with job satisfaction and turnover intentions. Specifically, it appears that low alternatives commitment is negatively related to job satisfaction ($r = -0.30$ and -0.52 for less- and more-experienced subjects, respectively) and positively related to turnover intentions ($r = 0.08$ and 0.26 for less- and more-experienced subjects, respectively); with the exception of the relationship of low alternatives commitment to turnover intentions for less-experienced subjects, all of the low alternatives correlations were significantly different from zero ($p < 0.0001$). In contrast, high sacrifice commitment does not generally appear to be related to job satisfaction and turnover intentions; of the correlations involving high sacrifice commitment and the two consequences, only one (the correlation between low alternatives commitment and job satisfaction for less-experienced subjects) is significantly different from zero at the $\alpha = 0.05$ level. While the relationship between high sacrifice commitment and turnover intentions for more-experienced subjects is marginally significant ($r = -0.12$, $p = 0.06$), this significance is largely a result of the relatively large sample size of more-experienced subjects.

With the exception of turnover intentions for less-experienced subjects, t -tests indicate that the differences between the correlation of the two components of continuance commitment and the organizational consequences for both groups of subjects are statistically

significant (at $\alpha = 0.05$). While we held no *a priori* expectations regarding the direction of relationships involving different aspects of continuance commitment, these findings suggest that they have different impacts on job satisfaction and turnover intentions. These differences provide an argument for examining multiple measures of organizational commitment in performing studies of accountants' job satisfaction and turnover intentions.

As with the results for affective and continuance commitment, the correlations for the two subject groups were compared to determine whether the strength of the relationships differed for less- and more-experienced subjects. T-tests revealed marginal differences in the relationships between low alternatives commitment and job satisfaction ($t = 1.84$, $p = 0.07$) and turnover intentions ($t = 1.77$, $p = 0.08$); in both cases, these relationships were stronger for more-experienced subjects than less-experienced subjects. However, no significant differences in the relationships involving high sacrifice commitment were observed between the two groups for the two consequences (lowest $p = 0.20$).

The significant results noted for low alternatives commitment may reflect one of three possibilities. First, subjects with a larger number of alternative job possibilities (lower levels of low alternatives commitment) may choose to remain with the organization because they are highly satisfied with their current position; this is consistent with higher levels of job satisfaction and lower levels of turnover intentions noted in panel B of table 4, as well as the greater job mobility associated with the public accounting profession (Jackofsky et al. 1986). Second, individuals who are dissatisfied with their current jobs (lower levels of job satisfaction) may seek alternative employment (higher turnover intentions). However, if these employees are unable to identify alternative job opportunities (higher levels of low alternatives commitment), they would likely remain with the organization out of necessity. In either case, low alternatives commitment appears to have a greater influence on the job satisfaction and turnover intentions of more-experienced employees than less-experienced employees. Finally, Meyer et al. (1990, 718) suggest that low alternatives commitment may influence organizational consequences through its relationship with affective commitment. Specifically, employees with high levels of affective commitment may either ignore or fail to perceive that they have fewer job alternatives (lower levels of low alternatives commitment), consistent with the negative correlations between affective commitment and low alternatives commitment noted in table 3 ($r = -0.29$ and -0.52 for less- and more-experienced subjects, respectively).

In sum, the relationships between low alternatives and high sacrifice commitment and the organizational consequences significantly differed, suggesting that these are distinct sources of OC. Also, comparisons between the two experience levels indicated that the relationships involving low alternatives commitment were stronger for more-experienced subjects. Finally, it appears that high sacrifice commitment by itself is not significantly related to the job satisfaction or turnover intentions of senior-level accountants.

DISCUSSION AND CONCLUSIONS

This study found support for the existence of multiple dimensions of OC among accounting professionals. These dimensions indicate that public accountants form commitment to the organization through identification with the organization and support for its goals (affective commitment), lack of alternative job opportunities (low alternatives commitment), and the potential sacrifice of benefits and privileges upon departure (high sacrifice commitment). In addition, different dimensions of OC were found to have different impacts on two important organizational consequences (job satisfaction and turnover intentions).

The results of this study provide an indication of the development of OC for both less- and more-experienced senior accountants. Both groups of subjects appear to distinguish between affective and continuance commitment; in addition, an analysis of the more-experienced subjects' responses identified two separate components of continuance commitment (low alternatives commitment and high sacrifice commitment). Comparing the mean levels of OC held by the two groups of subjects revealed that more-experienced employees held higher levels of continuance commitment (both low alternatives commitment and high sacrifice commitment). The failure to observe significant differences in the level of affective commitment held by the two groups of subjects was inconsistent with previous organizational research (Hackett et al. 1994; Meyer et al. 1993) and indicates that (1) professional accountants form an emotional attachment to the organization relatively early in their careers and (2) this attachment does not appear to differ between less- and more-experienced subjects.

Evaluating the effects of the dimensions of OC on the job satisfaction and turnover intentions of senior accountants revealed that these consequences were significantly related to affective commitment; the correlations involving affective commitment and these consequences were relatively strong and similar for both less- and more-experienced subjects. With respect to the dimensions of continuance

commitment, it appears that job satisfaction and turnover intentions were primarily influenced by low alternatives commitment (which was negatively related to job satisfaction and positively related to turnover intentions); these relationships were stronger for more-experienced employees than less-experienced employees. While the relationships between the two continuance commitment dimensions and organizational consequences for less-experienced subjects were not as strong, these results should be viewed in light of the relatively ambiguous factor structure (see panel A of table 2) and lower internal reliabilities for these constructs.

The relationships between the various dimensions of OC and job satisfaction and turnover intentions initially suggest that affective commitment is the most influential of the dimensions. Accounting research, however, should consider the additional dimensions of OC demonstrated here to exist. While low alternatives commitment reflects to some extent the existence of market-based job opportunities and does not appear to be easily influenced by the employing organization, the effect of this form of commitment on other form(s) should be investigated. For example, Meyer et al. (1990) suggest that employees with greater tenure may engage in a dissonance-reduction process to convince themselves that they would not remain with an organization simply because of fewer opportunities, but would report greater levels of affective commitment. In contrast, less-experienced employees may not find the need to engage in this form of dissonance-reduction behavior. While the nature of our sample and data do not permit causal interpretations to be drawn, future studies of a longitudinal nature (similar to Meyer et al. 1990) would be useful in identifying the development and change of the various dimensions of OC over professional accountants' careers.

Our findings for high sacrifice commitment suggest that this dimension did not generally influence the job satisfaction or turnover intentions of either group of subjects. While the failure to observe significant relationships indicates that senior-level accountants may not view non-salary benefits or privileges as important determinants of their job satisfaction or intention to seek alternative employment, high sacrifice commitment (in conjunction with affective commitment) may strengthen the overall levels of OC, resulting in higher levels of job satisfaction and lower turnover intentions. The interaction of affective commitment and continuance commitment has previous empirical support (Somers 1995). Thus, future research may wish to consider the effect of the combined impact of multiple dimensions of OC on outcomes such as job satisfaction and turnover intentions in a public accounting setting.

The need to retain highly-trained and specialized personnel suggests that firms must (and are) changing their approaches to personnel management (Hooks 1996). In this time of change, the examination and discussion of multiple measures of OC will provide an important perspective for accounting firms. The traditional focus on affective commitment is unnecessarily limited, as accounting firms begin recognizing the importance of a more balanced lifestyle and side bets (such as employee benefits and flexible scheduling) for their employees. Thus, future studies should attempt to identify the effectiveness of various non-salary benefits, privileges and other potential antecedents in enhancing levels of continuance commitment. Assuming that these recent efforts are successful in increasing levels of high sacrifice commitment, the next issue of importance is whether they result in increased levels of job satisfaction and reduced turnover intentions, since continuance commitment may represent an important tool in understanding the relationship between organizational commitment, job satisfaction and turnover intentions.

APPENDIX

Items Used to Measure Dimensions of Organizational Commitment

Affective Commitment:

1. I do not feel a strong sense of belonging to my firm. (R)
2. I do not feel "emotionally attached" to this firm. (R)
3. This firm has a great deal of personal meaning to me.
4. I do not feel like "part of the family" at this firm. (R)
5. I would be very happy to spend the rest of my career with this firm.
6. I enjoy discussing my firm with people outside it.
7. I really feel as if this firm's problems are my own.
8. I think I could easily become as attached to another firm as I am to this one. (R)

Continuance Commitment:

1. Right now, staying with my firm is a matter of necessity as much as desire. (L)
2. I feel I have too few options to consider leaving this firm. (L)
3. One of the major reasons I continue to work for this firm is that leaving would require considerable personal sacrifice—another firm may not match the benefits I have. (H)
4. It would be hard to leave my firm now, even if I wanted to. (H)
5. One of the few negative consequences of leaving this firm would be the scarcity of available alternatives. (L)
6. Too much in my life would be disrupted if I decided I wanted to leave my firm now. (H)
7. It wouldn't be too costly for me to leave my firm in the near future. (R) (H)
8. I am not afraid of what might happen if I quit my job without having another one lined up. (R) (L)

R = Items reverse-scored in the original instrument.

L = Items related to the "low alternatives" dimension of the CCS.

H = Items related to the "high sacrifice" dimension of the CCS.
All items were measured using a seven-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

REFERENCES

- Allen, N. J., and J. P. Meyer. 1990. The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology* 63 (March): 1-18.
- Angle, H. L., and J. L. Perry. 1981. An empirical assessment of organizational commitment and organizational effectiveness. *Administrative Science Quarterly* 26 (March): 1-14.
- Aranya, N. and K. R. Ferris. 1984. A reexamination of accountants' organizational-professional conflict. *The Accounting Review* 60 (January): 1-15.
- , T. Kushnir, and A. Valency. 1986. Organizational commitment in a male-dominated profession. *Human Relations* (May): 433-448.
- , R. Lachman, and J. Amernic. 1982. Accountants' job satisfaction: A path analysis. *Accounting, Organizations and Society* 7 (3): 201-216.
- Bar-Hayim, A., and G. S. Berman. 1992. The dimensions of organizational commitment. *Journal of Organizational Behavior* 13 (July): 379-387.
- Bateman, T. S., and S. Strasser. 1984. A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal* 27 (March): 95-112.
- Becker, H. S. 1960. Notes on the concept of commitment. *American Journal of Sociology* 66 (July): 32-42.
- Benke, R., and J. Rhode. 1984. Intent to turnover among higher level employees in large CPA firms. *Advances in Accounting* 1: 157-174.
- Bline, D. M., D. Duchon, and W. F. Meixner. 1991. The measurement of organizational and professional commitment: An examination of the psychometric properties of two commonly used instruments. *Behavioral Research in Accounting* 3: 1-12.
- Caldwell, D. F., J. A. Chatman, and C. A. O'Reilly. 1990. Building organizational commitment: A multifirm study. *Journal of Occupational Psychology* 63 (September): 245-261.
- Cohen, J., and P. Cohen. 1983. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Colarelli, S. M., R. A. Dean, and C. Konstans. 1987. Comparative effects of personal and situational influences on job outcomes of new professionals. *Journal of Applied Psychology* 72 (November): 558-566.
- Doll, B. F. 1983. Staff turnover: How to manage it. *Journal of Accountancy* 156 (December): 76-83.
- Dunham, R. B., J. A. Grube, and M. G. Castañeda. 1994. Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology* 79 (June): 370-380.
- Ferris, K. R. 1981. Organizational commitment and performance in a professional accounting firm. *Accounting, Organizations and Society* 6 (4): 317-325.
- , and N. Aranya. 1983. A comparison of two organizational commitment scales. *Personnel Psychology* 36 (Spring): 87-98.

- Gaertner, J. F., P. E. W. Hemmeter, and M. K. Pittman. 1987. Employee turnover in public accounting: A new perspective. *The CPA Journal* 57 (August): 30-37.
- Gregersen, H. B., and J. S. Black. 1992. Antecedents to commitment to a parent company and a foreign operation. *Academy of Management Journal* 35 (March): 65-90.
- Gregson, T. 1992. An investigation of the causal ordering of job satisfaction and organizational commitment in turnover models in accounting. *Behavioral Research in Accounting* 4: 80-95.
- Hackett, R. D., P. Bycio, and P. A. Hausdorf. 1994. Further assessments of Meyer and Allen's (1991) three-component model of organizational commitment. *Journal of Applied Psychology* 79 (February): 15-23.
- Hair, J. R., R. E. Anderson, and R. L. Tatham. 1992. *Multivariate Data Analysis with Readings*. New York, NY: Macmillan.
- Harrell, A. 1990. A longitudinal examination of large CPA firm auditors' personnel turnover. *Advances in Accounting* 8: 233-246.
- , E. Chewning, and M. Taylor. 1986. Organizational-professional conflict and the job satisfaction and turnover intentions of internal auditors. *Auditing: A Journal of Practice & Theory* 5 (Spring): 109-121.
- Hooks, K. L. 1996. Diversity, family issues and the Big 6. *Journal of Accountancy* 181 (July): 51-56.
- Hrebiniak, L. G., and J. A. Alutto. 1972. Personal and role-related factors in the development of organizational commitment. *Administrative Science Quarterly* 17 (December): 555-573.
- Hunt, S. D., L. B. Chonko, and J. B. Wilcox. 1984. Ethical problems of marketing researchers. *Journal of Marketing Research* 21 (August): 309-324.
- Istvan, D. F., and J. B. Wollman. 1976. Turnover in CPA firms. *The CPA Journal* 46 (July): 21-25.
- Jackofsky, E. F., K. R. Ferris, and B. G. Breckenridge. 1986. Evidence for a curvilinear relationship between job performance and turnover. *Journal of Management* 12: 105-111.
- Kalbers, L. P., and T. J. Fogarty. 1995. Professionalism and its consequences: A study of internal auditors. *Auditing: A Journal of Practice & Theory* 14 (Spring): 64-86.
- Lachman, R., and N. Aranya. 1986a. Evaluation of alternative models of commitments and job attitudes of professionals. *Journal of Occupational Behavior* 7 (July): 227-243.
- , and ———. 1986b. Job attitudes and turnover intentions among professionals in different work settings. *Organization Studies* 7 (3): 279-293.
- Mathieu, J. E. 1991. A cross-level nonrecursive model of the antecedents of organizational commitment and satisfaction. *Journal of Applied Psychology* 76 (October): 607-618.
- , and J. L. Farr. 1991. Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology* 76 (February): 127-133.
- , and D. Zajac. 1990. A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin* 108 (September): 171-194.

- Mayer, R. C., and F. D. Schoorman. 1992. Predicting participation and production outcomes through a two-dimensional model of organizational commitment. *Academy of Management Journal* 35 (August): 671-684.
- McGee, G. W., and R. C. Ford. 1987. Two (or more?) dimensions of organizational commitment: Reexamination of the affective and continuance commitment scales. *Journal of Applied Psychology* 72 (November): 638-642.
- Meixner, W. F., and D. M. Blin. 1989. Professional and job-related attitudes and the behaviors they influence among governmental accountants. *Accounting, Auditing and Accountability* 2: 8-22.
- Meyer, J. P., and N. J. Allen. 1984. Testing the "side-bet" of organizational commitment: Some methodological considerations. *Journal of Applied Psychology* 69 (August): 372-378.
- , and ———. 1991. A three-component conceptualization of organizational commitment. *Human Resource Management Review* 1: 61-89.
- , ———, and I. R. Gellatly. 1990. Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology* 75 (December): 710-720.
- , ———, and C. A. Smith. 1993. Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology* 78 (August): 538-551.
- , D. R. Bobocel, and N. J. Allen. 1991. Development of organizational commitment during the first year of employment: A longitudinal study of pre- and post-entry influences. *Journal of Management* 17 (December): 717-733.
- , S. V. Paunonen, I. R. Gellatly, R. D. Goffin, and D. N. Jackson. 1989. Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology* 74 (December): 152-156.
- Mowday, R. T., L. W. Porter, and R. M. Steers. 1982. *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. San Diego, CA: Academic Press.
- Norris, D. R., and R. E. Niebuhr. 1983. Professionalism, organizational commitment and job satisfaction in an accounting organization. *Accounting, Organizations and Society* 9 (1): 49-59.
- Nunnally, J. C. 1978. *Psychometric Theory*. New York, NY: McGraw-Hill.
- O'Reilly, C. A., J. Chatman, and D. F. Caldwell. 1991. People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal* 34 (September): 487-516.
- Pasewark, W. R., and J. R. Strawser. 1996. The determinants and outcomes associated with job insecurity in a professional accounting environment. *Behavioral Research in Accounting* 8: 91-113.
- Porter, L. W., R. Steers, R. Mowday, and P. Boulian. 1974. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology* 59 (October): 603-609.
- Rasch, R. H., and A. Harrell. 1990. The impact of personal characteristics on the turnover behavior of accounting professionals. *Auditing: A Journal of Practice & Theory* 9 (Spring): 90-102.
- Rusbult, C. E., and D. Farrell. 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 (August): 429-438.
- Shaub, M. 1991. A psychometric comparison of two organizational commitment scales. *Psychological Reports* 68 (April): 419-426.
- Snead, K., and A. Harrell. 1991. The impact of psychological factors on the job satisfaction of senior auditors. *Behavioral Research in Accounting* 3: 85-96.
- Somers, M. J. 1995. Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior* 16: 49-58.
- Williams, L. J., and J. T. Hazer. 1986. Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation models. *Journal of Applied Psychology* 71 (May): 219-231.