

## **INFORMATION TO USERS**

**This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.**

**The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.**

**In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.**

**Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.**

**Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.**

**Bell & Howell Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA**

**UMI<sup>®</sup>**  
**800-521-0600**



## **NOTE TO USERS**

**Page(s) not included in the original manuscript are unavailable from the author or university. The manuscript was microfilmed as received.**

**118--122**

**This reproduction is the best copy available.**

**UMI**



**REEXAMINATION OF THE THREE COMPONENT MODEL  
OF ORGANIZATIONAL COMMITMENT IN SOUTH KOREA**

**A dissertation submitted  
to Kent State University in partial  
fulfillment of the requirement for the  
degree of Doctor of Philosophy**

**by**

**Jinchul Jung**

**August, 1999**

**UMI Number: 9963696**

**Copyright 2000 by  
Jung, Jinchul**

**All rights reserved.**

**UMI<sup>®</sup>**

---

**UMI Microform 9963696**

**Copyright 2000 by Bell & Howell Information and Learning Company.**

**All rights reserved. This microform edition is protected against  
unauthorized copying under Title 17, United States Code.**

---

**Bell & Howell Information and Learning Company  
300 North Zeeb Road  
P.O. Box 1346  
Ann Arbor, MI 48106-1346**

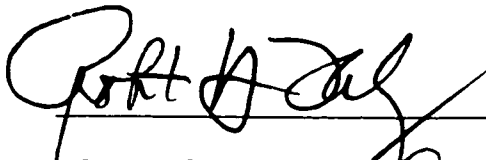
**Dissertation written by**

**Jinchul Jung**

**B.A., Chung-Ang University, 1984**

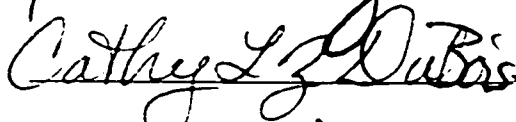
**M.A., Chung-Ang University, 1987**

**Ph.D., Kent State University, 1999**



**Approved by**

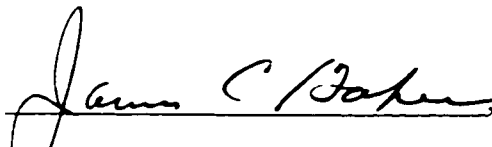

**, Co-Chair, Doctoral Dissertation Committee**



**, Co-Chair, Doctoral Dissertation Committee**



**, Members, Doctoral Dissertation Committee**

**Accepted by**

**Doctoral Director, Graduate School of  
Management**

**Dean, Graduate School of Management**

## ACKNOWLEDGEMENTS

This dissertation is dedicated to those people whose generous contributions helped make the dissertation possible. First and foremost, I express my deep appreciation to my co-advisors, Drs. Robert H. Faley and Cathy L. Z. DuBois. Without their kind teaching, sincere advice, and emotional support this dissertation would not have been possible. Throughout my doctoral studies at Kent State University, Drs. Faley and DuBois helped me better understand how to do research. They also helped shape my future research agenda. Furthermore, when I was faced with difficult academic and family problems, they provided the emotional support that helped get me through these very difficult times.

I would also like to thank my other committee member, Dr. Fred Feitler, who provided significant support and guidance in completing the dissertation. Because of his extensive expertise with cross-cultural research, Dr. Feitler provided especially valuable theoretical and methodological suggestions. I would also like to thank Dr. Christine Jiang for serving as Graduate Faculty Representative and for raising issues that will be valuable as I undertake future research in the area of organizational commitment. Finally, I want to express special thanks to Mr. Kil, a friend whose support I found invaluable throughout my doctoral studies.

Most importantly, I wish to acknowledge the support of my parents, wife, and son. I particular wish to express my love to my wife, Hyunju, for her encouragement and support throughout my doctoral program. Without her very special love and understanding I would never have been able to take on and complete this overwhelming task.



## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	vi
CHAPTER	
I. INTRODUCTION .....	1
3-OC Model Applied to South Korea .....	3
Research Objectives and Questions .....	4
Definitions .....	5
II. LITERATURE REVIEW .....	8
The Traditional Approach to Organizational Commitment .....	8
Meyer & Allen's Three-Component Model and Scales .....	14
Theoretical Conceptualization of the Model .....	14
Empirical Evaluations for the 3-OC Model and Scales .....	17
Internal Consistency Reliability of the 3-OC Scales .....	19
The Factor Structure of the 3-OC Scales .....	21
Sub-dimensionality of the CCS .....	23
Convergent Validity of AC .....	25
Discriminant Validity of NC .....	26
The Applicability of the 3-OC Model to South Korea .....	27
Relations between the Three OC Constructs and Other Variables .....	30
Employees' Perceived Organizational Support .....	30
Perceived Organizational Justice .....	32
Perceived Side-Bets .....	35
Perceived Lack of Job Alternatives .....	35
Organizational Citizenship Behavior .....	36
The Effects of Questionnaire Format on the Psychometric Properties of the 3-OC Scales .....	38
The Grouping Effects of Questionnaire Items on Reliability and Validity .....	40
Item Wording Effects on Reliability and Validity .....	41
Chapter Summary .....	44
III. METHODOLOGY	
Research Questions .....	45
Hypotheses .....	45
Selected Instruments and Measures .....	47
Translation and Back-Translation Procedures .....	49

The Preliminary Survey .....	51
Preliminary Sample .....	51
Reliability .....	51
Item Confusion .....	52
The Main Survey .....	52
Questionnaire Formats .....	52
Questionnaire Construction .....	52
Sample .....	53
Demographic Characteristics .....	53
Data Collection Procedures .....	54
Analyses .....	55
IV. STATISTICAL ANALYSIS .....	56
Multivariate Normality of OC Raw Data .....	56
Reliability of 3-OC Measures .....	57
Dimensionality of the 3-OC Scales .....	58
General Explanations for Confirmatory Factor Analysis .....	58
Analysis of the 3-OC Data .....	59
Sub-dimensionality of CCS .....	61
Item Analysis .....	63
Convergent Validity of the ACS and the OCQ .....	65
Nomological Network of the 3-OC Model .....	66
Assessment of Nomological Validity .....	69
Statistical Analysis of the Three Questionnaire Formats .....	71
Internal Consistency Reliabilities across the Three Questionnaire Formats ..	72
Dimensionality of the 3-OC Scales across the Three Questionnaire Formats..	73
Item Analyses across the Three Questionnaires .....	74
Discriminant Validity across the Three Questionnaire Formats .....	75
Nomological Validity across the Three Questionnaire Formats .....	75
V. SUMMARY AND DISCUSSION .....	77
Discussion .....	79
Suggestions for Future Research .....	85
Limitations of this Study .....	89
Conclusion .....	91
REFERENCES .....	92
APPENDICES .....	113
Appendix A: Translation, Back-Translation, Equivalency Test Results.....	113
Appendix B: The Work Attitude Survey (English and Korean Questionnaires)...	122
Appendix C: Demographic Information.....	133
Appendix D: Type A, B, and C Questionnaire Data.....	137
Appendix E: Questionnaire for Content Accuracy Assessment of the 3-OC Scales.....	143

## LIST OF TABLES

Table	Page
1. <b>Definitions of Organizational Commitment</b> .....	15
2. <b>Allen and Meyer's (1990) 3-OC Scales</b> .....	18
3. <b>Internal Consistency Reliability of ACS, CCS, and NCS</b> .....	20
4. <b>Correlation Patterns of ACS and NCS with Other Variables</b> .....	26
5. <b>Demographic Distributions</b> .....	54
6. <b>Response Rates and Useful Data</b> .....	55
7. <b>Univariate Normality Statistics (Skeweness and Kurtosis)</b> .....	57
8. <b>Overall Fit Indices of Competing Models</b> .....	60
9. <b>Chi-Square Difference Between Competing Oblique Models</b> .....	61
10. <b>Overall Fit Index for the CC Models</b> .....	62
11. <b>Item Factor Loadings for the 3-OC Model</b> .....	63
12. <b>Factor Correlation Estimates of OC Constructs</b> .....	65
13. <b>CFA for AC and OCQ</b> .....	66
14. <b>Estimated Factor Loading of Selected OC Variables</b> .....	67
15. <b>Means, Standard Deviations, and Correlations</b> .....	70
16. <b>Unemployment Rate and Inflation Rate</b> .....	83
A1. <b>The Comparability / Similarity Scale of Back-Translated Items</b> .....	118
A2. <b>Internal Consistency Reliability of Measures (Preliminary Test)</b> .....	121
D1. <b>Univariate Normality Statistics (Skeweness and Kurtosis)</b> .....	138
D2. <b>Internal Consistency Reliability of OC Scales</b> .....	138
D3. <b>Overall Fit Indices for Competing Models of 3-OC (Based on Three Different Questionnaires)</b> .....	139

<b>D4. Factor Loadings of 3-OC Variables .....</b>	<b>140</b>
<b>D5. Means and Standard Deviations of AC3, AC4, &amp; AC5 .....</b>	<b>140</b>
<b>D6. Average Variance Extracted Estimates .....</b>	<b>140</b>
<b>D7. Type A Means, Standard Deviations, and Correlations .....</b>	<b>141</b>
<b>D8. Type B Means, Standard Deviations, and Correlations .....</b>	<b>141</b>
<b>D9. Type C Means, Standard Deviations, and Correlations .....</b>	<b>142</b>
<b>D10. Hypotheses and Correlation Results .....</b>	<b>142</b>

# CHAPTER 1

## INTRODUCTION

The construct of organizational commitment (OC) has appeared in the literature of sociology, psychology, and organizational behavior since the 1960s (c.f., Becker, 1960; Cohen & Lowenberg, 1990; Mathieu & Zajac, 1990; Morrow, 1993; Mowday, Porter, & Steers, 1982). OC is related to important organizational outcome variables such as turnover (Griffeth & Hom, 1995; Mathieu & Zajac, 1990), job performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989), and extra-role behavior of employees (Meyer, Allen, & Smith, 1993; O'Reilly & Chatman, 1986).

Although there are any number of definitions of organizational commitment<sup>1</sup>, organizational commitment is generally described as a psychological bond between employees and their organization which decreases the likelihood that employees will voluntarily leave the organization (Allen & Meyer, 1996; Meyer & Allen, 1991). There have been two main approaches to the study of OC (cf. Mowday, Porter, and Steers, 1982): the behavioral approach and the attitudinal approach. The behavioral approach relates to the processes that lock employees into their organizations, and how such problems are dealt with. The attitudinal approach views commitment largely as an attitude held by employees who consider whether their values and goals are congruent with those of the organization. The attitudinal approach has received more attention in the OC-related literature than the behavioral approach (Meyer & Allen, 1991 and Mowday et al., 1982).

---

<sup>1</sup> Morrow (1983) identified over 25 commitment-related constructs and measures, and pointed out that the issues related to commitment have become very confused.

**The Organizational Commitment Questionnaire (OCQ) developed by Porter, Steers, & Mowday (1979) has been the most frequently used questionnaire for assessing attitudinal OC (Mathieu & Zajac, 1990). Both 9-item and 15-item versions of this questionnaire exist. However, the 15-item OCQ has been criticized for two reasons. First, there are inconsistent findings regarding its dimensionality. Second, several items relate to behavioral intentions, and some authors suggest this biases the measurement of the relationship between OC and turnover/turnover intention (Becker, 1992; Mathieu & Zajac, 1990).**

**In an attempt to better integrate the various conceptualizations of OC, Meyer & Allen (1991) proposed the Three-Component Model of Organizational Commitment (3-OC Model). Meyer and Allen's approach views OC in terms of three attitudinal components: emotional, calculative, and normative. These authors developed three scales (3-OC Scales) to measure these components (Allen & Meyer, 1990; Meyer & Allen, 1991).**

**The 3-OC scales are the Affective Commitment Scale (ACS), Continuance Commitment Scale (CCS), and Normative Commitment Scale (NCS). The 3-OC Scales have received some support (Cohen, 1996; Dunham, Grube, & Castaneda, 1995; Hackett, Bycio, & Hausdorf, 1994; Meyer & Allen, 1991; Meyer, Allen, & Gellatly, 1990; Meyer, Allen, & Smith, 1993). All of these studies were conducted using U.S. and Canadian samples. Thus, in contrast to the many studies which have utilized the OCQ in a variety of different cultures (e.g., Luthans, McCaul, & Dodd, 1985), research using the 3-OC model outside the North American context is much more limited (Ko, Price, & Mueller, 1997; Vandenberghe, 1996).**

Research into the applicability of the Meyer and Allen model outside a North American context has been recommended (e.g., Meyer & Allen, 1997). For example, Doktor, Tung, & Von Glinow (1991) suggested that “it is time to move beyond the exclusive emphasis we have had in our research and writing on the North American perspective to include other parts of our global arena (p. 260). And Riordan and Vandenberg (1994) stated that while construct validity is typically established in a single population (most often in the United States), little research has examined whether or not measures are equivalent in different cultural populations.

### 3-OC Model Applied to South Korea

Recently, Ko et al. (1997) investigated the 3-OC Model using a South Korean sample. These researchers argued that problems related to the conceptualization of continuance commitment and the lack of discriminant validity for normative commitment resulted in poor support for the 3-OC Model in South Korea.

Two concerns regarding the self-report questionnaires that Ko et al. used to collect data suggest the need for further research on the 3-OC model in South Korea. Although self-report questionnaires are useful for providing information about how people feel about their jobs and organization (Howard, 1994), respondents tend to be quite sensitive to questionnaire format and design. One consequence of this sensitivity may be biased results (Feldman & Lynch, 1988; Schmitt, 1994). For example, responses to questions measuring attitudes may be affected by seemingly trivial changes in the wording of questions (Schuman & Presser, 1996).

The first concern involved the manner in which the 3-OC items were grouped. While conventional OC studies randomly mixed the commitment items (e.g., Allen &

Meyer, 1990), Ko et al. grouped AC, CC, and NC scale items together. As noted by Tourangeau and Rasinski (1988), grouping questionnaire items together may yield response biases; respondents are able to guess that consecutive items tap the same or similar information. In doing so, respondents increase the likelihood of giving consistent answers without allowing for careful evaluation of each item. This could artificially influence the psychometric properties of a scale, especially its reliability and validity.

The second concern is related to the respondent confusion that reverse-worded OC items can create. For example, researchers have concluded that reverse-worded items in the Job Diagnostic Survey (Cordery & Sevastos, 1993; Harvey, Billings, & Nilman, 1985; Idaszak & Drasgow, 1987; Pilotte & Gable, 1990) and in the Organizational Commitment Questionnaire (Luthans, McCaul, & Dodd, 1985; Magazine, Williams, & Williams, 1996) have contributed to an inconsistent factor structure. Schmitt & Stults (1985) suggest that if only 10% of all respondents are confused by reverse-worded items, this will be enough to artificially influence the survey results.

### Research Objectives and Questions

This study examined whether Meyer and Allen's Three-Component Model of organizational commitment generalizes to South Korean workers. This study addresses the questionnaire-related flaws in the Ko et al. (1997) study that may have affected their results. Specifically, this research examines the effects of item grouping-patterns (i.e., grouped vs. randomized items) and wording patterns (i.e., positively worded vs. mixed positively and negatively worded items) on the psychometric properties of the 3-OC scales.



**A diverse sample of workers from six different industries in South Korea was used to examine the following research questions:**

- 1. Whether the factor structure of the 3-OC Model is supported.**
- 2. Whether the reliability and convergent and discriminant validity of the 3-OC scales are supported.**
- 3. Whether item grouping (grouped versus randomized items) influences the psychometric properties of the 3-OC scales.**
- 4. Whether negatively worded items influence the psychometric properties of the affective and normative commitment scales.**

### **Definitions**

**The following definitions are provided for the purpose of clarity:**

- 1. Structural Equation Modeling (SEM)**

**A multivariate technique that allows for simultaneous estimation of both a measurement model, which specifies relationships between the observed variables (measured and manifest) and unobserved latent endogenous variables (Medsker, Williams, & Holahan, 1994, p. 439).**

- 2. Confirmatory Factor Analysis (CFA)**

**A multivariate statistical technique for testing hypotheses about the dimensions underlying a set of measured variables. A researcher specifies a particular factor model (i.e., a configuration of factor loadings, factor variance/covariance, and unique errors in the measured variables) to evaluate its goodness-of-fit to the data. CFA is designed for situations in which the researcher wishes to test the hypothesis that a particular linkage between observed variables and hypothetical factors exists.**

### **3. Construct**

**An abstract theoretical (hypothetical) latent variable that is invented (or ‘constructed’) to explain some phenomenon (Schreisheim, Powers, Scandura, Gardiner, & Lankau, 1993, p. 385).**

### **4. Reliability**

**The degree of consistency across multiple items of a measure.**

### **5. Validity**

**The extent to which a scale or measure accurately reflects the construct of interest.**

### **6. Construct Validity**

**Validity that assesses the extent to which the underlying traits of a measurement instrument can be identified and the degree to which these traits reflect the theoretical model on which the instrument is based (Ary, Jacobs, & Razavieh, 1979; Gronlund, 1985).**

### **7. Convergent Validity**

**The degree to which the information obtained from multiple measures of a construct indicates the same or similar meaning of the construct (Campbell & Fiske, 1959). The most common approach is to compare factor loadings from exploratory factor analysis and/or confirmatory factor analysis with loadings that would be expected based on the theory. A construct’s convergent validity can also be determined by examining its correlations with measures of other constructs with which it should be significantly correlated, based on theory or past empirical findings (Campbell & Fiske, 1959).**

**8. Discriminant Validity**

The degree to which measures of different constructs are distinct (Campbell & Fiske, 1959). A construct's discriminant validity is determined by demonstrating that it is not significantly correlated with measures of other constructs that it should not be related to, based on theory or past empirical findings (Campbell, 1960).

**9. Nomological Validity**

Reflects the extent to which a measure meets the theoretical expectations and fits lawfully into a network of expected relationships (Nunnally & Bernstein, 1994, p. 91).

## CHAPTER 2

### LITERATURE REVIEW

The first purpose of this chapter is to review the theoretical and empirical literature on organizational commitment in general. The second purpose is to review the literature on the 3-OC Model of OC, especially the psychometric stability of its three scales (Meyer & Allen, 1991; Allen & Meyer, 1990) in Western and non-Western countries.

First, research on organizational commitment in general is reviewed with respect to the various theoretical models of OC. Issues related to the measurement of OC are also examined. Emphasis is placed on previous OC research in different cultures to help determine whether the traditional models of OC can be generalized across cultures. Second, research involving the 3-OC model and its scales is reviewed to better determine the soundness of the model and the validity of its scales. Third, research on the effects of different questionnaire formats (i.e., item grouping and item wording) is reviewed to better understand the impact of format variables on OC questionnaire results.

#### The Traditional Approach to Organizational Commitment

Traditionally, there were two divergent approaches to evaluating OC: attitudinal and behavioral. Mowday et al. (1982) provided a more detailed description of these approaches:

Attitudinal commitment focused on the processes by which people come to think about their relationship with the organization. In many ways it can be thought of as a mind set in which individuals consider the extent to which their own values and goals are congruent with those of the organization. Behavioral commitment, on the other hand, relates to the processes by which individuals become locked into a certain organization and how they deal with this problem (p. 26).

The attitudinal approach views OC largely as a set of affective states or behavioral intentions, such as a desire to remain with an organization (e.g., Porter, Steers, Mowday, & Boulian, 1974). The primary focus of the attitudinal approach is to identify whether antecedent conditions of organizational commitment yield effective behavioral outcomes (e.g., Mowday, Porter, & Steers, 1982).

The behavioral approach views OC as a force that ties employees to an organization (Becker, 1960; Scholl, 1981). The behavioral approach has evolved primarily as a result of Becker's side-bets theory and was described as "a structural phenomenon which occurs as a result of individual-organization transactions and alternations in side-bets or investments over time" (Hrebiniak & Alutto, 1972, p. 556). As noted by Meyer & Allen (1997), employees "becoming to committed to a particular course of action" (p. 9) as a result of the accumulation of side-bets that would be lost if membership in their present organization was terminated.

Of the two approaches, more attention has been paid to the attitudinal approach (cf. Mathieu & Zajac, 1990; Somers, 1993). This is due in part to the lack of a valid measure of Becker's side-bet theory with respect to behavioral OC (Cohen & Lowenberg, 1990; McGee & Ford, 1987; Meyer & Allen, 1984; Stebbins, 1971; Wallace, 1997). For example, two measures of behavioral OC (the Ritzer-Trice Scale, 1969, and the Hrebiniak-Alutto Scale, 1972) did not support the behavioral approach and side-bet theory (e.g., Meyer & Allen, 1984; Stebbins, 1971). As a result, Meyer and Allen (1984) argued that both the Ritzer-Trice Scale and the Hrebiniak-Alutto Scale relate more to attitudinal OC than behavioral OC. They commented that "the instrument used on tests of the side-bet theory may not be measuring commitment as Becker conceptualized it" (p.

377). Ferris and Aranya (1983) also showed that predictors of behavioral OC correlated better with measures of attitudinal OC (such as the OCQ). Consequently, the behavioral approach to OC has not been significantly supported because of invalid behavioral measures.

Research on the attitudinal approach to OC has been more successful, yielding several conceptualizations and measures of attitudinal OC (Porter, Steers, Mowday, & Boulian, 1974; O'Reilly & Chatman, 1986; Meyer & Allen, 1991). In all of these conceptualizations the relative strength of an individual's identification with and involvement in a particular organization is considered important (Angle & Perry, 1981; Mowday et al., 1982; Porter, Steers, Mowday, & Boulian, 1974).

Porter and his colleagues (1974) provided the most influential research on attitudinal commitment when they developed the Organizational Commitment Questionnaire (OCQ). The initial OCQ consisted of 15 items, of which 6 items were reverse-worded. The OCQ was intended to be a global attitudinal construct reflecting three characteristics of commitment (affective, cognitive, and behavioral). Specifically, the OCQ was defined as (a) a strong belief in and acceptance of the organization's goals and values (*identification*); (b) a willingness to exert considerable effort on behalf of the organization (*motivation*); and (c) a strong desire to maintain membership in the organization (*intention*) (cf. Mowday, Porter, & Steers, 1982).

For sometime the OCQ was the exclusive means of measuring organizational commitment; it continues to be widely used today (e.g., Chen, Hui, & Segó, 1998; Farh, Earley, & Lin, 1997). However, criticisms of the OCQ were raised with respect to (1) inconsistent dimensions and (2) the inclusion of behavioral items that may have resulted

in a confounding relationship between commitment and turnover (Becker, 1992; Mathieu & Zajac, 1990; Morrow, 1993; Reichers, 1985). These criticisms are explained in detail below.

First, research findings related to the dimensionality of the OCQ have been inconsistent. Porter and his colleagues (Porter, Steers, Mowday, & Boulian, 1974; Mowday, Steers, & Porter, 1979; Mowday, Porter, & Steers, 1982) presented the OCQ as a singular construct reflecting three aspects of attitudinal states: affective (identification), cognitive (motivation), and behavioral (intent to remain). Several empirical studies confirmed the unidimensionality of the OCQ (Dunham, Grube, & Castaneda, 1994; Ferris & Aranya, 1983; Mowday, Porter, & Steers, 1982; Mowday, Steers, & Porter, 1979). For example, Mowday et al. (1979) used exploratory factor analysis and found a single factor using six different sets of samples.

However, there have been theoretical and empirical arguments against the unidimensionality of the OCQ (Becker, 1992; Mathieu & Zajac, 1990; Mayer & Schoorman, 1998; McCaul, Hinsz, & McCaul, 1995). For example, research has revealed that the OCQ may contain more than one factor and that each of these factors differentially predicts important OC-related outcomes (e.g., turnover) (Angle & Lawson, 1993; Angle & Perry, 1981; Magazine, Williams, & Williams, 1996; McCaul, Hinsz, & McCaul, 1995; Tetrick & Farkas, 1988; Zeffane, 1994).

For instance, Angle and Perry (1981) identified two factors in the OCQ: value commitment and the commitment to stay. These two factors were differentially related to outcome variables, which suggests that the two are distinct factors. Magazine, Williams,

and Williams (1996) found three different factors that paralleled the three characteristics of the OCQ suggested by Mowday et al. (1982).

An interesting point regarding the two factors of the OCQ in empirical studies is related to the wording of OC items. The OCQ developed by Porter and his colleagues contained 6 items that were negatively worded in an effort to reduce response bias (e.g., acquiescence tendency). A single factor was found which included both the positively and the negatively phrased OCQ items. Several studies, however, reported that the different wordings of OCQ items indicated bi-dimensionality. Specifically, nine positively worded items consisted of one factor and six negatively worded items consisted of a separate factor (Blau, 1989; Carsten & Spector, 1987; Davy, Kinicki, & Scheck, 1991; Farkas & Tetrick, 1989; Mayer & Schoorman, 1992; Michael & Spector, 1982; Williams & Hazer, 1986). Unfortunately, it is not clear whether the occurrence of such factors represents distinct OC factors or is the result of measurement errors due to negatively worded items. Therefore, caution must be exercised in using the 15 item OCQ involving both negatively and positively worded items.

The second major criticism of the 15-item OCQ is based on the fact that it contains behavioral items (e.g., the intention to stay in the employee's organization) (Mathieu & Zajac, 1990). This is not to say that the OCQ should exclude behavioral items, because attitudinal items can be used to examine the three psychological states: beliefs, emotions, and behavioral intention (Breckler, 1984). However, the inclusion of OC items reflecting behavioral intention (e.g., "It would take very little in my present circumstance to cause me to leave this organization") may well result in a biased relationship between OCQ scores and turnover and/or turnover intention (Griffeth &



Hom, 1995; Tett & Meyer, 1993). Consequently, significant relationships between scores on the 15-item OCQ and turnover or turnover intention may be inflated (Reichers, 1985; Tett & Meyer, 1993, Williams & Hazer, 1986).

These criticisms have resulted in two admonitions about the OCQ. First, it has been suggested that the OCQ should be revised (Cook & Wall, 1980). Porter and his colleagues (Mowday, Steers, & Porter, 1979) suggested that the short (9-item) form of the OCQ (consisting of only positively worded items) would be an acceptable substitute for the original 15-item OCQ, especially in situations where questionnaire length is a concern.

Empirical research on the 9-item OCQ found a consistent one-factor structure (e.g., Angle & Perry, 1981; Begley & Czajka, 1993; Tetrick & Farkas, 1988). Moreover, eliminating the behavioral items led to a more accurate estimation of the relationships between 9-item OCQ scores and measures of turnover (Tett & Meyer, 1993).

Consequently, it seems that the criticisms raised about the 15-item OCQ do not apply to the short form, and the current research recognizes the comparative advantage of the 9-item short-form over the original 15-item OCQ (Mathieu & Zajac, 1990).

Second, it has been more generally claimed that the OCQ should be discontinued because of its suspect factor structure and the general limitations inherent in the attitudinal approach to OC (Becker, 1992). In the least, Becker (1992) suggested that an alternative attitudinal measure that better reflects the various components of OC should be developed to replace the OCQ.

## **Meyer & Allen's Three-Component Model and Scales**

### **Theoretical Conceptualization of the Model**

Faced with the growing criticisms of OC as a unidimensional construct, a more comprehensive theory of OC was proposed by Meyer & Allen (1991). These researchers based their model of OC on three common themes they believed characterized the various conceptualizations of OC (cf. Table 1): an affective theme (reflecting emotional orientation toward the organization), a calculative theme (reflecting perceived sunk costs if membership in the organization is discontinued), and a normative theme (reflecting the obligation to stay with the organization).

Meyer and Allen labeled these three themes, respectively, affective commitment (AC), continuance commitment (CC), and normative commitment (NC). They maintained that these three components of OC were distinctive constructs, each of which had differential relationships with OC-related behavioral outcome variables. Meyer and Allen viewed these three components as psychological states that characterized an employee's relationship with his/her organization. As they noted,

Affective commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so. Continuance commitment refers to an awareness of the costs associated with leaving the organization. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. Finally, normative commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization. (Meyer & Allen, 1991, p. 67)

**Table 1**  
**Definitions of Organizational Commitment**

<b>AFFECTIVE THEME</b>
The attachment of an individual's fund of affectivity and emotion to the group. (Kanter, 1968, p. 507)
An attitude or an orientation toward the organization which links or attaches the identity of the person to the organization. (Sheldon, 1971, p. 143)
The process by which the goals of the organization and those of the individual become increasingly integrated or congruent. (Hall, Schneider, & Nygren, 1970, pp. 176-177)
A partisan, affective attachment to the goals and values of the organization, to one's role in relation to goals and values, and to the organization for its own sake, apart from its purely instrumental worth. (Bunchanan, 1974, p. 533)
The relative strength of an individual's identification with and involvement in a particular organization. (Mowday, Porter, & Steers, 1982, p. 27)
<b>CALCULATIVE THEME</b>
Profit associated with continued participation and a 'cost' associated with leaving (Kanter, 1968, p. 504)
Commitment comes into being when a person, by making a side-bet, links extraneous interests to a consistent line of activity. (Becker, 1960, p. 32)
A structural phenomenon which occurs as a result of individual-organizational transactions and alternations in side-bets or investments over time. (Hrebiniak, & Alutto, 1972, p. 556)
<b>NORMATIVE THEME</b>
Commitment behaviors are socially accepted behaviors that exceed formal and/or normative expectations relevant to the object of commitment. (Wiener, & Gechman, 1977, p. 48)
The totality of internalized normative pressures to act in a way that meets organizational goals and interests. (Wiener, 1982, p. 421)
The committed employee considers it morally right to stay in the company regardless of how much status enhancement or satisfaction the firm gives him or her over the years. (Marsh, & Mannari, 1977, p. 59)

(Adopted from Meyer & Allen, 1997, p. 12)

There are two important characteristics of Meyer and Allen's (1991) 3-OC Model. First, the three components of OC are psychological states, each of which has unique implications for explaining an employee's organizational membership. In suggesting this Meyer and Allen broke with those who embraced the attitudinal approach by suggesting that continuance commitment could be viewed as an attitudinal and not just a behavioral construct.

There are any number of arguments that bear on whether continuance commitment should be considered an attitudinal or behavioral construct (Jaros, Jermier, Koehler, & Sincich, 1993, Ko, Price, & Mueller, 1997; Meyer & Allen, 1991). For example, Ko, Price, & Mueller (1997) criticized the CC conceptualization of Meyer and Allen, claiming that the theoretical basis of CC was Becker's side-bet theory and thus it had to be a behavioral construct. On the other hand, Jaros et al. (1993) stated that, "There is no reason to limit development of this concept to the idea that an individual becomes committed to a prior pattern of behavior" (p. 953). Thus, they believed that Becker's theory should not be tied exclusively to the behavioral approach to OC.

The second important characteristic of the 3-OC model is that the three components are multiple dimensions of organizational commitment. Past OC research focused on the unidimensionality of OC, in which each different approach toward OC (attitudinal or behavioral) had unique implications for important OC-related behavioral outcomes (e.g., Mowday et al., 1982). However, the 3-OC model addresses the multidimensionality of OC, whereby employees simultaneously experience three distinct aspects of commitment. Therefore, employee-organization linkages can be explained by considering the strength of the combination of the three components. As noted by Meyer and Allen (1991), "the relationship between any component of commitment and behavior will be complicated by the fact that all three components can exert independent (and possibly interactive) effects on a particular behavior" (p. 74). In support of this, several empirical studies have found independent or interactive effects of the three components of OC on important OC-related behavioral outcome variables (e.g., Jaros, 1997; Meyer,

Irving, & Allen, 1998; Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989; Somers, 1995).

In the very least, the 3-OC model of Meyer & Allen (1991) has instigated new thinking about OC, especially about whether OC should be viewed multi-dimensionally or unidimensionally. The 3-OC Model has also provided a model in which the various conceptualizations of OC all might be integrated through the three different psychological themes Meyer & Allen articulated.

#### Empirical Evaluations for the 3-OC Model and Scales

Several empirical studies have evaluated the validity of the 3-OC model by examining the theoretical relationships among the three components as well as their relationships with important organizational outcome variables (e.g., Allen & Meyer, 1990; Dunham et al., 1994; Hackett, Bycio, & Hausdorf, 1994). Some of the most important research has focused on evaluating the psychometric properties of the 3-OC scales.

Allen and Meyer (1990) developed three OC scales, each reflecting the three components of OC. Meyer and Allen (1984) originally developed the ACS and CCS scales only. However, Allen and Meyer (1990) later added a scale to measure NCS. Each scale originally consisted of eight items. However, the ACS and CCS scales were later modified to include only six of the original eight items (all eight NCS items were replaced with six new items) (Meyer, Allen, & Smith, 1993). All original and current items are displayed in Table 2.

Table 2  
 Allen and Meyer's (1990) 3-OC Scales  
 (original eight items and modified six items)

OC	
AC1	<i>I would be very happy to spend the rest of my career with this organization. <sup>(a)</sup></i>
AC2	<i>I enjoy discussing my organization with people outside of it. <sup>(b)</sup></i>
AC3	<i>I really feel as if this organization's problems are my own.</i>
AC4	<i>I think that I could easily become as attached to another organization as I am to this one. (R)</i>
AC5	<i>I do <u>not</u> feel like 'part of the family' at my organization. (R)</i>
AC6	<i>I do <u>not</u> feel 'emotionally attached' to this organization. (R)</i>
AC7	<i>This organization has great personal meaning to me.</i>
AC8	<i>I do <u>not</u> feel a strong sense of belonging to my organization. (R)</i>
CC1	<i>I am <u>not</u> afraid of what might happen if I quit my job without having another one lined up. (R)</i>
CC2	<i>It would be very hard for me to leave my organization right now, even if I wanted to.</i>
CC3	<i>Too much in my life would be disrupted if I decided I wanted to leave my organization now.</i>
CC4	<i>It would <u>not</u> be too costly for me to leave my organization now. (R)</i>
CC5	<i>Right now, staying with my organization is a matter of necessity as much as desire.</i>
CC6	<i>I feel that I have too few options to consider leaving this organization.</i>
CC7	<i>One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.</i>
CC8	<i>One of the major reasons I continue to work for this organization is that leaving would require considerable personal scarcity of available alternatives.</i>
CC9	<i>If I had not already put so much of myself into this organization, I might consider working elsewhere.</i>
NC1	<i>I think that people these days move from company to company too often.</i>
NC2	<i>I do not believe that a person must always be loyal to his or her organization. (R)</i>
NC3	<i>Jumping from organization to organization does not seem at all unethical to me. (R)</i>
NC4	<i>One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.</i>
NC5	<i>If I got another offer for a better job elsewhere I would not feel it was right to leave my organization.</i>
NC6	<i>I was taught to believe in the value of remaining loyal to one organization.</i>
NC7	<i>Things were better in the days when people stayed with one organization for most of their careers.</i>
NC8	<i>I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore. (R)</i>

NC9	<b><i>I do <u>not</u> feel any obligation to remain with my current employer. (R)</i></b>
NC10	<b><i>Even if it were to my advantage, I do not feel it would be right to leave my organization now.</i></b>
NC11	<b><i>I would feel guilty if I left my organization now.</i></b>
NC12	<b><i>This organization deserves my loyalty.</i></b>
NC13	<b><i>I would not leave my organization right now because I have sense of obligation to the people in it.</i></b>
NC14	<b><i>I owe a great deal to my organization.</i></b>

(a): Bold italic items are revised 6-item 3-OC Scales by Meyer, Allen, and Smith (1993).

(b): Shaded items are original 8-item 3-OC Scales but were eliminated by Meyer, Allen and Smith (1993).

(R): represents reversed negatively worded items.

A number of empirical studies have investigated the psychometric properties of the Allen and Meyer 3-OC Scales. Although the results overall are somewhat mixed, research suggests that the three OC scales measure distinct constructs and exhibit conventionally acceptable levels of reliability (Allen & Meyer, 1990; Angle & Lawson, 1993; Dunham et al., 1994; Hackett et al., 1994; Jaros et al., 1993; Meyer, Allen, & Smith, 1993; Randall, Fedor, & Longenecker, 1990). Detailed psychometric evaluations of the 3-OC scales are discussed in the following section, and are based on construct validation with a focus on (1) internal consistency reliability, (2) dimensionality of the scales (factor structure), and (3) convergent and discriminant validity of the scales (Churchill, 1979; Nunnally, 1978; Schwab, 1980).

#### 1. Internal Consistency Reliability of the 3-OC Scales

Many studies have assessed the internal consistency of the 3-OC scales using Cronbach's alpha (1951). Table 3 includes the reliability levels for these studies.

Average reliabilities were .84 for ACS, .76 for CCS, and .75 for NCS.

**Table 3**  
**Internal Consistency Reliability of ACS, CCS, and NCS**

<b>References</b>	<b>Samples</b>	<b>ACS</b>	<b>CCS</b>	<b>NCS</b>
Allen & Meyer (1990)	Sample 1	0.87	0.75	0.79
	Sample 2	0.86	0.82	0.73
Allen & Meyer (1993)	University library and hospital	0.86	0.81	0.76
Allen & Smith (1987)		0.82	0.81	0.74
Blau, Paul, & St. John (1993)	Part-time MBA student	0.80		
		0.81		
Bycio, Hackett, & Allen (1995)	Registered nurses	0.86	0.79	0.73
Cohen (1996)	Hospital nurses	0.79	0.69	0.83
<i>Coleman, Irving, &amp; Cooper (1997)</i>	<i>Canadian government agency</i>	<b>0.84</b>	<b>0.82</b>	<b>0.69</b>
Cropanzano, James, & Konovsky (1993)	Private pathology lab	0.89	0.85	
Day & Schenrade (1997)	Lesbians & gays	0.86	0.84	
Dunham, Grube, & Castaneda (1994)	Diverse set of employees	0.74~	0.73~	0.67~
		0.87	0.81	0.78
Hackett, Bycio, & Hausdorf (1994)	Registered nurses	0.86	0.79	0.73
	Bus operators	0.84	0.75	0.75
Hutchison (1997)	University staff and faculty	0.89		
Jaros (1997)	University	0.87	0.78	0.72
	Aerospace firms	0.85	0.75	0.72
<i>Kidwell, Jr., Mossholder, &amp; Bennett (1997)</i>	<i>Diverse service organizations</i>	<b>0.80</b>		
<i>Ko, Price, &amp; Mueller (1997)</i>	<i>Korean research institute</i>	<b>0.86</b>	<b>0.58</b>	<b>0.78</b>
	<i>Korean airline company</i>	<b>0.87</b>	<b>0.64</b>	<b>0.76</b>
Konovsky & Cropanzano (1991)	Pathology laboratory	0.89	0.85	
McGee & Ford (1987)	University faculty	0.88	0.73	
		0.84	0.74	
Meyer & Allen (1984)	Students	0.88	0.73	
	University Employees	0.84	0.74	
<i>Meyer, Allen, &amp; Smith (1993)</i>	<i>Registered nurses</i>	<b>0.82</b>	<b>0.74</b>	<b>0.83</b>
Meyer, Irving, & Allen (1998)	Recent university graduates <i>Graduate students</i>	0.77	0.71	0.74
		0.83	0.74	0.85
		<b>0.85</b>	<b>0.69</b>	<b>0.86</b>
		<b>0.85</b>	<b>0.75</b>	<b>0.85</b>



Meyer, Paunonen, Gellatly, Goffin, & Jackson (1989)	Managers in food service	0.74	0.69	
Moorman, Niehoff, & Organ (1993)	National cable company	0.85	0.71	
Pond, Nacoste, Mohr, & Rodriguez (1997)	National government office	0.88		
Randall, Fedor, & Longenecker (1990)	Manufacturing plant	0.88	0.83	0.52
Shore & Tetrick (1991)	Multinational firm	0.90	0.83	
Shore & Wayne (1993)	Multinational firms	0.88	0.82	
Sinclair, Hannigan, & Tetrick (1995)	Random samples	0.86	0.72	
Somers (1993)	Staff nurses	0.81	0.74	
Somers (1995)	Hospital	0.81	0.74	0.71
Somers (1999)	Nurses	0.82	0.71	
Vandenberg & Self (1993)	Banking institution	0.76 0.86 0.89	0.75 0.82 0.79	
Whitener & Walz (1993)	Bank tellers	0.86	0.81	

**Bold italic = 6-item revised 3-OC scales by Meyer, Allen, and Smith (1993).**

## 2. The Factor Structure of the 3-OC Scales

Several empirical studies have examined the factor structure of the 3-OC scales using exploratory factor analysis (Allen & Meyer, 1990; McGee & Ford, 1987) and confirmatory factor analysis (Cohen, 1996; Dunham et al., 1994; Hackett et al., 1994; Irving, Coloman, & Cooper, 1997; Jaros et al., 1993; Ko, Price, & Mueller, 1997; Magazine, Williams, & Williams, 1996; Meyer, Allen, & Gellatly, 1990; Meyer, Allen, & Smith, 1993; Shore & Tetrick, 1991). Research has generally concluded that the three components of OC provide evidence for three distinct constructs.

Meyer and Allen (1984) were the first to examine the factor structure of AC and CC. Their results supported their hypothesis that AC and CC were two different sub-components of organizational commitment. Consistent with the findings of Meyer and Allen (1984), McGee and Ford (1987) reported that AC and CC were orthogonal factors. However, there were different item loadings between the two studies. While Meyer and Allen (1984) found all eight items of CC to loaded successfully on the intended CC factor, McGee and Ford (1987) found that two CC items (i.e., CC1 and CC2, in Table 2) did not loaded on the CC factor. Furthermore, Meyer, Allen, and Gellatly (1990) reported that two factors (AC and CC) had oblique rather than orthogonal relationships, suggesting commonalities between the two factors.

When Allen and Meyer (1990) developed their three factor scales, analyses confirmed that each of the eight items of AC, CC, and NC loaded appropriately on the three factors. Dunham, Grube, and Castanedsa (1994) also found that the three OC components were distinctive constructs; confirmatory factor analyses suggested that a three-factor oblique model best fit the data. However, item analysis suggested that some OC items had low factor loadings (AC2, AC4, CC1, CC4, NC1, NC2, NC5, and NC8). Similarly, Hackett et al. (1994) demonstrated that two CC items (CC1 and CC4), as well as most NC items, contained a high degree of measurement error and low factor loadings.

Meyer, Allen, and Smith (1993) successfully tested the generalizability of the 3-OC model to the domain of occupational commitment. The scales were further modified by eliminating of two AC and three CC items all of which showed the weakest factor loadings (Meyer, Allen, & Gellatly, 1990). One new CC item (CC9) was also added. Finally, they rewrote all the NC items of the original (Allen & Meyer, 1990) to better

reflect their conceptualization of NC. Consequently, a modified 18-item version of the 3-OC scales was developed.

Meyer, Allen, & Smith (1993) reported that the 18-item scale was also composed of three distinguishable constructs. Moreover, one other empirical study of OC (Coleman & Irving, 1997) and one of occupational commitment (Irving, Coleman, & Cooper, 1997) using the 18-item scale reported that the three commitment concepts were distinguishable constructs.

The modified 18-item version of the 3-OC scales is more useful in two respects. First, the 18-item scale is shorter than the original 24-item scale, making it easier to use in lengthy surveys. Second, the modified version more clearly reflects Meyer and Allen's (1991) conceptualizations because items with problematic factor loadings are eliminated (Dunham et al., 1994; Meyer et al., 1990) and new NC items are closer to the original NC conceptualization (Meyer, Allen, & Smith, 1993).

### 3. Sub-dimensionality of the CCS

Although there is research that supports the multi-dimensionality of the 3-OC scales (Allen & Meyer, 1990; Bycio et al., 1995; Cohen, 1996; Dunham et al., 1994; Hackett et al., 1994; Irving et al., 1997; Jaros, 1997; Ko et al., 1997; Meyer, Allen, & Smith, 1993; Vandenberghe, 1996), some research has found that continuance commitment is comprised of two factors (Hackett et al., 1994; McGee & Ford, 1987; Meyer, Allen, & Gellatly, 1990; Sommers, 1993). These two factors appear to reflect the theoretical underpinnings of CC, which includes both the lack of job alternatives and high personal sacrifice (Allen & Meyer, 1990; Meyer & Allen, 1991). That is, employees may develop continuance commitment (i.e., a need to stay in the organization) because of a

perception that (1) few alternative employment options exist and (2) the personal sacrifice resulting from leaving the organization is high.

McGee and Ford (1987) were the first researchers to suggest that CC was composed of two distinct dimensions. Orthogonal factor analysis revealed that three CC items (CC2, CC3, and CC8) loaded on the high personal sacrifice factor and the other three items (CC5, CC6, and CC7) loaded on the lack of job alternative factor. Meyer, Allen, and Gellatly (1990) reported the same factor structure. However, there were differences as to whether the two sub-dimensions were related (Meyer et al., 1990) or independent (McGee & Ford, 1987). Subsequent confirmatory factor analyses showed that the two-factor oblique model of CC was the best fitting model when compared to competing nested models that included the one-factor and the two-factor orthogonal models (Dunham et al., 1994; Hackett et al., 1994).

Furthermore, correlations between the sub-components of CC and important OC-related outcome variables led to disagreements about the distinctiveness of CC. For example, empirical studies demonstrated that while low alternative CC was negatively related to AC, high personal sacrifice CC was positively related to AC (Angle & Lawson, 1993; Dunham et al., 1994; McGee & Ford, 1987; Meyer et al., 1990). Jaros (1997), however, found different correlations between each of the sub-dimensions of CC and turnover intentions. While low alternative CC was unrelated to turnover intention, high sacrifice CC was significantly and negatively related.

Meanwhile, Hackett et al. (1994) found that the two sub-dimensions of CC were highly related. Similar results were obtained between each CC sub-dimension and constructs such as job satisfaction, absenteeism, and several types of job performance.

Ko, Price, and Mueller (1997), concerned about the high correlation between the two sub-dimensions of CC reported in previous research (.82 in Meyer et al., 1990; .74 in Dunham et al., 1994; .77 in Hackett et al., 1994), concluded that CC was a unitary construct.

#### 4. Convergent validity of AC

As noted earlier, the OCQ has received some criticism from researchers (Becker, 1992; Mathieu & Zajac, 1990). In light of this, the ACS has been suggested as an alternative to the OCQ. In explaining the comparative advantage of the ACS over the OCQ, Allen and Meyer (1990) noted that the ACS is shorter than the OCQ and does not contain behavioral intention items. Alternatively, Ko, Price, & Muelle (1997) concluded that the 9-item version of the OCQ had greater potential benefit because its psychometric properties had been well established and the using the OCQ facilitated comparisons with other OC studies, most of which had used the OCQ.

The theoretical and empirical evaluations of both the OCQ and the ACS suggest that the two measures are very similar and measure the same construct. First of all, both scales were developed based on the theoretical assumption that OC had an affective component. Moreover, the empirical evidence supports the contention that the two scales measure the same construct. For example, there is a very high correlation (average = .80) between scores on the two scales (Allen & Meyer, 1990; Cohen, 1996; Dunham et al., 1994; Hackett et al., 1984; Meyer & Allen, 1984; Randall, Fedor, & Longenecker, 1990). There are also similar correlational patterns between the ACS and the OCQ and other important OC-related variables (Hackett et al., 1994; Meyer & Allen, 1984; Randall et al., 1990). For example, Randall et al. (1990) reported similar relationships between both

the OCQ and ACS and four sets of behavioral variables. Third, the results of confirmatory factor analyses have supported the fact that the OCQ and ACS measure the same underlying construct.

#### 5. Discriminant Validity of NC

Some research also suggests that the normative and affective commitment scales measure the same or similar constructs (Ko, Price, & Mueller, 1997). Two pieces of evidence suggest a lack of discriminant validity of the NCS. First, several empirical studies demonstrated high correlations between the NCS and ACS scales (Allen & Meyer, 1993; Randall, Fedor, & Longenecker, 1990). For example, Meyer, Allen, and Smith (1993) showed a significant and positive relationship between the ACS and NCS ( $r = .74$ ). Other studies also reported somewhat high correlations between the ACS and NCS ( $r = .51$  in Allen & Meyer, 1990;  $r = .51$  in Allen & Meyer, 1993;  $r = .54$  in Cohen, 1996;  $r = .34 - .50$  in Dunham et al., 1994;  $r = .41$  and  $.50$  in Jaros, 1997;  $r = .50$  in Randall et al., 1990).

Second, studies have demonstrated that similar correlational patterns exist between both the ACS and NCS and other important OC-related variables. Table 4 shows the correlational patterns of both the ACS and NCS with other variables (more detailed correlational patterns were described in Allen and Meyer, 1996).

**Table 4**  
**Correlation Patterns of ACS and NCS with Other Variables**

Variables	AC	NC	Variables	AC	NC	Variables	AC	NC
<u>A &amp; M (1990)</u>			<u>Cohen (1996)</u>			<u>Hackett et al.</u>		
Role Clarity	53	39	Involvement	41	33	OCQ	72	34
Equity	55	26	OCQ	78	51	Quit job	-19	-12
Skills	25	19	Effort	06	02	JIG	51	21
Alternatives	-13	-08	Career Com	47	26	C. Absences	-22	-09
OC Norms	39	24	Leave intent	-45	-20	Complaints	-17	-03

<u>Jaros (1997)</u>			<u>Meyer et al.(1)</u>			<u>Sommers (1995)</u>		
Tenure	21	17	JS	49	37	CC	13	19
Sex	16	05	V. Absences	-13	-15	Total Absence	-06	02
Education	11	-17	Age	20	18	Annexed Abse.	-15	-07
CC	-06	09	Helping	10	00	Intent to Stay	46	39
Turnover	-53	-19	Tardiness	-01	-00	Turnover	-24	-25

Notes: A & M (1990): Allen & Meyer; Meyer et al. (1): Meyer, Allen, & Smith (1993); CC = Continuance Commitment; Career Com= Career Commitment; JIG= Satisfaction with Job in General; C. Absences = Culpable Absences; JS = Job Satisfaction; V. Absences = Voluntary Absences

The evidence of high correlation between the ACS and NCS, as well as the correlational patterns that both OC constructs share with other variables, suggests a lack of discriminant validity for the NCS. Allen and Meyer (1990) suggested that the NCS would be highly correlated with the ACS due to concomitant AC and NC feelings. That is, employees having strong NC would likely be loyal to the organization (Angle & Lawson, 1993). Similarly, employees may feel an obligation (high NC) to the organization if they have positive feelings (high AC) toward the organization (Allen & Meyer, 1996). In fact, Jaros (1997) viewed NC as a specific type of emotional attachment (AC). As a result of this conceptual redundancy between AC and NC, Ko et al. (1997) argued that NC could not be differentiated from AC.

#### The Applicability of the 3-OC Model to South Korea

So far this chapter has reviewed the psychometric evidence related to the OCQ scale (Porter et al., 1974) and the 3-OC scales (Allen & Meyer, 1990). As noted above, the validity of both the 9-item OCQ and the 18-item 3-OC scales has received some support.

However, while much research has examined the structure of the OCQ scale across different cultures (e.g., Randall, 1993), the cross-cultural stability of the 3-OC scales has received little attention (e.g., Ko et al., 1997). Thus, there is not much evidence

regarding the generalizability of the 3-OC model to different cultures or countries (Meyer & Allen, 1997).

As national societies become increasingly diverse and international relations become more commonplace, research that extends to different cultures becomes more important. An understanding of business practices in different cultures that inevitably includes the attitudes and behaviors of employees will become increasingly important. Since the end of World War II, the United States has dominated the economic and academic world (cf. Boyacigiller & Adler, 1991). Researchers have asserted that: “It is time to move beyond the exclusive emphasis we have had in our research and writing on the North American perspective, to include other parts of our global arena” (Doktor, Tung, Von Glinow, 1991, p. 260).

As noted above, a number of OC studies have been conducted using the OCQ in different countries and cultures (e.g., Al-Meer, 1989; Lincoln, 1989; Luthans, McCaul, & Dodd, 1985; Near, 1989; White, Parks, Gallagher, Tetrault, & Wakabayashi, 1995). Most of these studies focused on Asian countries such as Japan (Lincoln, 1989; Near, 1989; White et al., 1995), Malaysia (Pearson & Chong, 1997), Singapore (Harrison, 1995), and South Korea (Luthans et al., 1985; Sommers, Bae, & Luthans, 1996).

Most of these studies compared the OC levels of employees from two different cultures or countries (Al-Meer, 1989; Cole, 1979; Lincoln & Kalleberg, 1985; Luthans et al., 1985; Near, 1989). It was generally expected that Asian employees would be more emotionally committed to their organizations than their American counterparts because Asian employees are less likely to leave their organizations and work longer hours than American employees (cf. Redding, Norman, & Schlander, 1994). Some studies have



confirmed that Asians have a higher level of organizational commitment than their American counterparts (Cole, 1979; Lincoln & Kalleberg, 1985). However, it has also been argued that Americans are actually more committed to their organization than Asians (Lincoln, 1989; Luthans et al., 1985; Near, 1989).

One of the more likely reasons for these inconsistent findings is that organizational commitment theories and/or measurement instruments were primarily developed in North America and may not be applicable to non-Western employees. For example, Randall (1993, p. 109) has noted that “the OCQ provides validation for its use domestically; whether this evidence can be extended to different cultures is questionable.” Moreover, Cook and Wall (1980) stated that the OCQ was designed for America and questioned the validity of the instrument when used in other cultures. In light of this, Riordan and Vandenberg (1994) demanded that equivalent measures of OC should be examined before making cross-cultural comparisons of employee OC levels.

Faced with the very limited evidence of the cross-cultural generalizability of the 3-OC scales, the current research examined the psychometric properties of the 3-OC scales using a diverse set of South Korean workers to determine whether:

H<sub>1a</sub>: The internal consistency reliabilities of Allen and Meyer’s 3-OC scales will be at conventionally acceptable levels.

H<sub>1b</sub>: The 3-factor structure of Allen and Meyer’s 3-OC Scale will be confirmed.

H<sub>1c</sub>: The Continuance Commitment Scale will be a unitary construct.

H<sub>1d</sub>: The OCQ will converge with and have a significant and positive relationship with the ACS.

H<sub>1e</sub>: The correlation between the ACS and NCS will be significant and positive.

### **Relationships between the Three OC Constructs and Other Variables**

**Cronbach and Meehl (1955) specified the concept of the nomological net, and Schwab (1980) specifically explained the importance of nomological validity for construct validation:**

**It is important to specify probable (hypothetical) linkages between the constructs of interest and measures of other constructs... Such theorizing serves two important purposes for construct validation. First, specifying interconstruct linkages can serve to provide clarification of the construct under consideration... Second, specification of interconstruct linkages can serve as a valuable input in establishing construct validation procedures (p. 14).**

**Nomological validity of the 3-OC scales exists to the extent the proposed hypothesized relationships related to the 3 scales are supported. Proposed hypothesized relationships are constructed on the basis of both theoretical and empirical arguments.**

**The variables in the current study that are examined as part of the 3-OC scale's nomological net include perceived organizational support, perceived organizational justice, perceived side-bets, perceived lack of job alternatives, and organizational citizenship behaviors. Results of the hypothesized relationships proposed below will provide an assessment of the nomological validity of the 3-OC Model, as measured by the 3-OC scales of Meyer and Allen (1991) in South Korea.**

#### **Employees' Perceived Organizational Support (POS)**

**Relationships between employees and employers can be explained by social exchange theory. An exchange relationship between employees and their employer can be maintained if the employer's benefits for the employees are in equilibrium with the employees' emotional attachment to the organization (Blau, 1964; Gouldner, 1960).**

**Commitment concepts are framed as reciprocal relationships between employees and their employers. The employer rewards employees for their efforts; in turn, employees develop emotional attachment to the organization (e.g., organizational commitment). Consequently, benefits bestowed by one party entail an obligation to the other party to reciprocate.**

**Eisenberger, Huntington, Hutchison, and Sowa (1986) developed the concept of perceived organizational support (POS), which they refer to as an employee's beliefs about the "extent to which the organization values their contributions and cares about their well-being" (p. 501). Adopting social exchange theory, Eisenberger argued that employees' beliefs that they are being rewarded or valued by the organization contribute to employees' commitment to the organization. However, if employees perceive that their employers value them only as the result of outside constraints (such as government regulations or union pressures), employees will not perceive this as organizational support (Eisenberger et al., 1986; Eisenberger, Cummings, Armeli & Lynch, 1997). Thus, there should be a significant positive relationship between perceived organizational support and employees' organizational commitment.**

**Empirical evidence supports the argument for the reciprocal exchange of commitment, and demonstrates that two mirror images of commitment (POS and AC) are empirically distinct (Hutchison, 1997; Shore & Tetrick, 1991). There is also consistent evidence that employees who perceive themselves to be supported by the organization will have a strong affective commitment to the organization (Eisenberger et al., 1986; Eisenberger, Falso, and Davis-LaMastro, 1990; Guzzo, Noonan, & Elron, 1994;**

Hutchison, 1997; Setton, Bennett, & Liden, 1996; Shore & Tetrick, 1991; Shore & Wayne, 1993; Wayne, Shore, & Liden, 1997).

On the other hand, the relationship between POS and normative and continuance commitment has received much less research attention. The theoretical arguments associated with the three components of organizational commitment (Meyer & Allen, 1991) suggest that POS should correlate significantly with normative commitment (Smith & Meyer, 1996) but not with continuance commitment (Shore & Tetrick, 1991; Shore & Wayne, 1993; Smith & Meyer, 1996). The expected relationships between employees' perceived organizational support and the three components of organizational commitment should generalize to South Korean employees. A specific hypothesis is proposed to test this:

H<sub>2a</sub>: There will be a significant and positive relationship between employees' perceived organizational support and employees' affective and normative organizational commitment, but not with continuance organizational commitment.

#### Perceived Organizational Justice

Another psychological and reciprocal exchange between employees and their organizations involves perceptions of organizational justice. If employees perceive that the organization treats them fairly regarding work-related decision making, they will tend to become more committed to the organization. Employees' perceptions of justice eventually lead to more effective employee performance within the organization (Alexander & Ruderman, 1987; Cropanzano & Folger, 1991; Moorman, 1991; Tansky, 1993; Whitenzer & Walz, 1993).

Employee perceptions of justice in the organizational decision making process is referred to as organizational justice (OJ). Organizational justice has been described as a psychological mechanism that explains the role of fairness in the workplace (Greenberg, 1990). Two types of organizational justice have been identified: distributive justice (DJ) and procedural justice (PJ) (e.g., see Alexander & Ruderman, 1987). Distributive justice refers to employee perceptions of the fairness of decision-related outcomes (such as merit pay) (Homans, 1961); here an employee's feelings of equity resulting from employer decisions is the main concern (Adams, 1965). Thus, DJ is primarily concerned with the fairness of decision-related outcomes rather than the process that underlie the decisions (Folger & Konovsky, 1989; Lind & Tyler, 1988).

Alternately, Thibaut and Walker (1975) focused on the process of decision making. These authors referred to this component of OJ as procedural justice. Thus, PJ refers primarily to the fairness of the procedures by which outcome-related decisions are made (Folger & Greenberg, 1985).

According to Greenberg (1990, 1992) PJ has two components. The first component, fair procedure, refers to the process by which fair decisions are made. The second component, interactional justice, refers to whether decision-makers treat employees with courtesy and respect. It has been suggested that both components of PJ play important roles in organizational actions such as dispute resolution (Conlon & Fasolo, 1990), performance appraisal (Folger, Konovsky, & Cropanzano, 1992), interview judgments (Bies & Moag, 1986), pay raise decisions (Folger & Konovsky, 1989), and layoff decisions (Brockner, DeWitt, Grover, & Reed, 1990).

The relationships between OJ and OC can be explained on the basis of social exchange theory (Bateman & Organ, 1983; cf. also Folger & Konovsky, 1989; Konovsky & Cropanzano, 1991; Lind & Tyler, 1988; McFarlin & Sweeney, 1993). For example, Lind and Tyler (1988) claimed that employee perceptions of PJ contribute to positive affectivity, as manifested in affective commitment or trust in management. Alexander and Ruderman (1987), Folger and Konovsky (1989), and Sweeney and McFarlin (1993) found that employee perceptions of PJ were also related to global evaluations of the institution (e.g., affective OC), whereas employee perceptions of DJ were related to personal outcomes (e.g., pay satisfaction).

Whereas ample evidence supports a positive relationship between PJ and affective organizational commitment, there is little evidence about the relationships between PJ and normative or continuance commitment. For example, some researchers have reported there is no significant relationship between PJ and CC (Konovsky & Cropanzano, 1991; Moorman, Niehoff, & Organ, 1993). On the other hand, Lynn (1992) reported that employee perceptions of PJ were significantly related to employee levels of both affective and normative commitment. Lynn's findings are reflected in the following hypothesis examined in the current study:

**H<sub>2b</sub>: There will be a significant and positive relationship between employee perceptions of procedural justice and both affective and normative organizational commitment, but no significant relationship between perceptions of procedural justice and continuance commitment.**

### **Perceived Side-Bets**

Becker's (1960) side-bet theory defines a side-bet as a valuable effort or investment in the organization that would be lost or devalued if employees were to discontinue their employment. Becker notes that "commitment comes into being when a person, by making a side-bet, links extraneous interests with consistent lines of activity" (p. 32). Therefore, side-bets link employees to a particular course of action because something of value would be forfeited if they discontinued the activity.

Employees have different notions of what constitutes a valuable investment in the organization. For example, some employees believe that good relationships with other employees are valuable because such relationships might not be regained if they were to take a job in another organization. Other employees feel that specific job skills that would not be useful in other organizations are valuable. Regardless of the nature of the side-bet, side-bet theory says that employees would not want to squander valuable investments by leaving their organization.

This notion is similar to Meyer and Allen's (1990) concept of continuance commitment. That is, employees are aware of sunk costs when they consider leaving an organization, and their awareness of these costs may prevent them from leaving. Thus, the following hypothesis is proposed:

H<sub>2c</sub>: There will be a significant and positive relationship between the perceived side-bets (investments) and continuance commitment.

### **Perceived Lack of Job Alternatives**

Another argument suggests that continuance commitment is a function of employee perceptions of employment alternatives (Farrell & Rusbult, 1981). Employees

who believe they have few (if any) alternate employment options will have stronger continuance commitment than employees who perceive that they have any number of employment alternatives. In other words, there will be a significant relationship between employee perceptions of their employment-related alternatives and their level of continuance commitment (Allen & Meyer, 1990; Meyer & Allen, 1991).

Meyer, Bobocel, and Allen (1991) examined this relationship using data collected from newly hired employees. These authors found that one of the most important predictors of continuance commitment was the perceived lack of job alternatives. As a consequence, the following hypothesis is proposed:

H<sub>2d</sub>: There will be a significant and positive relationship between the perceived lack of job alternatives and continuance commitment.

### Organizational Citizenship Behavior

The importance of OC in the workplace stems from the fact that it influences the effective functioning of the organization. For example, OC is highly related to the actual turnover as well as the turnover intentions of employees (Cropanzano, James, & Konovsky, 1993; Hackett et al., 1994; Maslyn & Fedor, 1998; Meyer, Allen, & Smith, 1993; Whitener & Walz, 1993) and employee job satisfaction (Cropanzano et al., 1993; Harris & Mossholder, 1996; Kidwell, Mossholder, & Bennett, 1997). It is also directly and indirectly related to job performance (Brett, Cron, & Slocum, 1995; Cropanzano et al., 1993; Meyer et al., 1989).

Current OC research posits that organizational citizenship behavior (OCB) is also related to OC (Moorman, Niehoff, & Organ, 1993; Shore & Wayne, 1993). OCB is viewed as an extra-role behavior of employees that both contributes to organizational



effectiveness and is a potential determinant of organizational performance (Bateman & Organ, 1983; Organ, 1988; Smith, Organ, & Near, 1983). Thus, OCB is defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ, 1988, p. 4). As Smith, Organ, and Near (1983) note, the major role of OCB is to “lubricate the social machinery of the organization” (pp. 653-654).

OCB has been conceptualized in several ways (cf., Brief & Motowidlo, 1986; Graham, 1991; Puffer, 1987), and two different views of OCB have been the targets of much OCB research (Smith, Organ, & Near, 1983; Williams & Anderson, 1991). The first view of OCB is as a form of altruistic behavior that benefits the organization in general. The second view of OCB is as a form of conscientiousness that manifests itself in discrete employee behaviors such as punctuality. Williams and Anderson (1991) referred to the first view as organizational behavior that directly benefits the organization (or OCBO) and the second view as organizational behavior that indirectly benefits the organization (or OCBI).

Several studies have examined the relationship between OC and the various views of OCB (e.g., Bateman & Organ, 1983; Farh, Early, & Lin, 1997; Mayer & Schoorman, 1992; Muenene, 1995; O'Reilly & Chatman, 1986; Organ, & Ryan, 1995; Podsakoff, MacKenzie, & Bommer, 1996; Van Dyne, Graham, & Dienesch, 1994). Most studies report a positive relationship between the two constructs. For example, using meta-analysis Organ and Ryan (1995) reported a mean correlation between OC and OCB of .32. This correlation is higher than the mean correlation reported between OC and job performance (Cropanzano, James, & Konovsky, 1993; Meyer, Allen, & Smith, 1993).

The relationships between the three components of OC and OCB have also been examined (Meyer, et al., 1993; Morrison, 1994; Munene, 1995; Shore & Wayne, 1993). For example, Meyer, Allen, and Smith (1993) reported a significant positive relationship between nurses' AC scores and two types of self-reported helping behaviors as well as between AC, NC and the effective use of their time (an organizational citizenship behavior).

Shore and Wayne (1993) reported that CC was negatively related to two components of organizational citizenship behavior (altruism and compliance), yet Meyer, Allen, and Smith (1993) reported a non-significant relationship between CC and these two types of citizenship behavior. Organ and Ryan (1995) also reported that continuance commitment was not significantly correlated with either altruism or compliance.

In comparison, the relationship between either CC or NC and OCB has been underreported. Limited evidence suggests that the relationship between NC and OCB is generally positive (Meyer, Allen, & Smith, 1993). Thus, the following hypothesis is proposed:

H<sub>2c</sub>: Affective and normative organizational commitment will be significantly and positively related to organizational citizenship behavior; however, continuance organizational commitment will not be significantly related to OCB.

### The Effects of Questionnaire Format

#### On The Psychometric Properties of the 3-OC Scales

It has been suggested that small changes in questionnaire format (e.g., different item groupings and different wordings) can influence how subjects respond to questionnaire items. This is a salient issue related to research that uses the 3-OC scales.

**Questionnaires have been the primary research tool for gathering data on attitudinal constructs (e.g., organizational commitment) in the workplace (Cook, Hepworth, Wall, & Warr, 1981; Schriesheim, Kopelman, & Solomon, 1989; Stone, 1978). Questionnaires provide a useful picture of employee feelings about their organization and are considered the most time-efficient and cost-effective means of measuring the psychological states of employees.**

**The current research suggested some of the potential dysfunctional aspects of questionnaires (Brief, Burke, George, Robinson, & Webster, 1988; Schmitt, 1994). According to Tourangeau and Rasinski (1988) each questionnaire item used to measure employee attitudes requires a four-fold process of cognitive evaluation. Employees: (1) interpret the question, (2) retrieve relevant beliefs and feelings about the question, (3) apply such beliefs and feelings to make an appropriate judgment, and (4) based on this judgment answer the question. Because contextual factors (e.g., item grouping patterns) influence the cognitive evaluation process, contextual factors must also be taken into account in questionnaire development.**

**Research has suggested that different item groupings and wordings can meaningfully alter subject responses (Roberson & Sundstrom, 1990; Schuman & Presser, 1981). Consequently, it has been suggested that even small changes in questionnaire format should be of concern if valid research findings are to be expected (Stone, Stone, & Gueutal, 1990).**

**The current study examines two format-related issues that have the potential to affect the data related to the psychometric properties of the 3-OC scales. First, different**

item grouping patterns (i.e., grouped or dispersed OC items<sup>2</sup>) might result in different conclusions about the 3-OC scales. For example, although Allen & Meyer (1990) favored the randomly dispersed format for the 3-OC scales, Ko, Price, & Mueller (1997) used the grouped pattern in their questionnaire. The second issue deals with the impact of negatively worded items on subject responses to the 3-OC questionnaire and the resulting conclusions about the 3-OC scales.

#### The Grouping Effect of Questionnaire Items on Reliability and Validity

As noted above, Allen & Meyer (1990) recommended that 3-OC items be randomly grouped. Randomly ordering items reduces the possibility that respondents will guess research intentions (Schriesheim et al., 1989) and that responses to individual items will be affected by responses to previous items (Budd, 1986; Schriesheim, Solomon, & Kopelman, 1984, 1989).

Evidence related to the advantages of grouped versus randomized item-groupings is somewhat mixed. Several studies have found no statistically significant differences between grouped and randomized items in terms of their impact on the psychometric properties of the scales that were examined (Baehr, 1953; Schriesheim, Kopelman, & Solomon, 1989; Schriesheim, Solomon, Kopelman, 1989). However, other researchers have suggested significant effects of the different groupings on the reliability and discriminant validity of the scales they examined (Harrison & McLaughlin, 1996; Schriesheim, 1981; Schriesheim & DeNisi, 1980; Solomon & Kopelman, 1984).

---

<sup>2</sup> OC items were grouped together by construct (grouped pattern) or OC items were randomly arranged (dispersed pattern).

Due to the inconsistency of the evidence about item groupings and because 3-OC studies have used both patterns, it was considered prudent to explore the effect on the properties of the 3-OC scales that might occur due to differences in how items were grouped. This was especially the case in light of the dearth of evidence about the impact of item groupings on results associated with cross-cultural research. Because the literature suggests that grouping items is most likely to inflate scale reliability, the current research looked for this in the questionnaire data.

Because consistent patterns of responses due to grouped items may continue to exert an influence on subsequent questionnaire items, the discriminant validity of these scales will be compromised. Thus, the current study also explored the effect of different questionnaire item groupings on the discriminant validity of the 3-OC scales. The following hypothesis are proposed:

H<sub>3a</sub>: The reliability level of the 3-OC scales in grouped pattern questionnaires will be higher than in randomized pattern questionnaires.

H<sub>3b</sub>: The discriminant validity of the 3-OC scales in grouped pattern questionnaires will be worse than in randomized pattern questionnaires.

#### Item Wording Effects on Reliability and Validity

The 3-OC scales include both positively and negatively worded items. In general, conventional practice has been to include equal numbers of positively and negatively worded items in questionnaires (Anastasi, 1982; Mehrens & Lehmann, 1983; Nunnally, 1978; Scott, 1968). The main reason for the inclusion of the negatively worded items was to reduce response biases such as acquiescence or the agreement response tendency (Idaszak & Drasgow, 1978; Nunnally, 1967; Schriesheim, 1981; Schriesheim &

Eisenbach, 1995). For example, Harrison and McLaughlin (1996) concluded that negatively worded questionnaire items act as a cognitive “speed bump” that manages the inattentive inertia of respondents.

However, several studies have provided evidence that suggests the inclusion of negatively worded items may ultimately skew research conclusions (Benson & Hocevar, 1985; Cordery & Sevastos, 1993; Idaszak & Drasgow, 1987; Schriesheim & Hill, 1981; Schriesheim & Kerr, 1974; Taylor & Bowers, 1972). For example, Taylor and Bowers (1972) suggested that even though negatively worded items need to be included in questionnaires, problems were caused by the fact that respondents often did not even notice the negatively worded items. Interestingly these authors concluded that, “A negatively worded item more often produces a higher mean response than does its positively worded counterpart... the wording of the negatively items spuriously changed the impact of the questions” (p. 24).

Using a group of undergraduate students, Schriesheim and Hill (1981) reported that more accurate results were obtained when they used all positively worded items than when they used either mixed or all negatively worded items. These authors concluded that, “Although the inclusion of negatively stated items may theoretically control or offset agreement response tendencies, their actual effect is to reduce response validity” (p. 1113). Benson and Hocevar (1985) drew similar conclusions; Schmitt and Stults (1985) concluded that questionnaire results could be misleading if as little as ten percent of respondents failed to notice or misunderstood negatively worded items.

Misunderstanding negatively worded items can also influence the internal consistency reliability of questionnaires. For instance, Pilotte and Gable (1990) found

significantly lower reliabilities associated with questionnaires that used negatively worded items. And Schriesheim, Eisenbach, and Hill (1991) and Schriesheim and Eisenbach (1995) found higher reliabilities associated with scales that used only positively worded items (compared to scales that used a mixture of positively and negatively worded items). Thus, the following hypothesis is proposed:

H<sub>3c</sub>: The inclusion of negatively worded items (compared to all positively worded items) will lower the internal consistency reliability of the 3-OC scales.

Negatively worded items may also influence the factor structure of scales (Angle & Perry, 1981; Cordery & Sevastos, 1993; Idaszak & Drasgow, 1987; Luthans, McCaul, & Dodd, 1985; Magazine, Williams, & Williams, 1996; Pilotte & Gable, 1990; Schriesheim & Eisenbach, 1995; Thacker, Fields, & Tetrick, 1989). In other words, artificial factors might be created by negatively worded items, and these artificial factors will act to mask a scale's true factor structure.

Of the possible reasons why negatively worded items might lead to artificial factor structures (e.g., low respondent cognitive ability or education), the current research focuses on the findings of Luthans et al. (1985) and Schmitt and Stults (1985) because their results are most relevant to the current research.

Luthans et al. reported that Korean employees were especially prone to misunderstand negatively worded items (this led to the creation of an artificial OCQ factor). Schmitt and Stults (1985) reported that artificial factors can be created when even very small percentages (ten percent) of respondents are confused by the presence of negatively worded items. Thus, it was considered prudent to examine the impact of

negatively worded 3-OC items in the present research. The following hypothesis is examined:

**H<sub>3d</sub>: Negatively worded items will create an additional factor when used with a sample of Korean employees.**

### **Chapter Summary**

The central focus of this chapter was the historical evolution of OC-related theory and the development of the two primary measures of OC, the OCQ and the 3-OC scales. This chapter also examined issues related to the generalizability of the 3-OC scales to non-Western countries as well as measurement issues regarding questionnaire format and their impact on scale properties.

Several hypotheses were proposed, followed by a review of studies conducted on the reliability and validity of the 3-OC Scales. This review included the articulation of a nomological net for testing the construct validity of the 3-OC model. The next chapter discusses the methodology used in the current study.



## **CHAPTER 3**

### **METHODOLOGY**

This chapter presents a summary of the research questions and hypotheses, a description of the measurement instruments used, information on the questionnaire translation & back-translation procedures, and a review of procedures involved in the preliminary-survey questionnaire. The main-survey questionnaire is also described, with a special focus on questionnaire format and the makeup of the sample of Korean workers used as subjects. Finally, the analytic procedures used in the current research are briefly described.

#### **Research Questions**

1. Whether the factor structure of the 3-OC Model is supported.
2. Whether the reliability and convergent & discriminant validity of the 3-OC scales are supported.
3. Whether item grouping (grouped versus randomly mixed items) influences the psychometric properties of the 3-OC scales.
4. Whether negatively worded items influence the psychometric properties of the affective and normative commitment scales.

#### **Hypotheses**

H<sub>1a</sub>: The internal consistency reliability of Allen & Meyer's 3-OC Scales will be at conventionally acceptable levels using Korean employees.

H<sub>1b</sub>: The 3-factor structure of Allen & Meyer's 3-OC Scales will be confirmed using Korean employees.

- H<sub>1c</sub>: The Continuance Commitment Scale will be a unitary construct using Korean employees.**
- H<sub>1d</sub>: The OCQ will converge with and have a significant and positive relationship with the ACS using Korean employees.**
- H<sub>1e</sub>: The correlation between the ACS and the NCS will be significant and positive using Korean employees.**
- H<sub>2a</sub>: There will be a significant and positive relationship between employees' perceived organizational support and AC and NC, but not with CC.**
- H<sub>2b</sub>: There will be a significant and positive relationship between employee perceptions of procedural justice and both AC and NC; however, there will be no significant relationship between perceptions of procedural justice and CC.**
- H<sub>2c</sub>: There will be a significant and positive relationship between perceived sidebets (investments) and CC.**
- H<sub>2d</sub>: There will be a significant and positive relationship between perceived lack of job alternatives and CC.**
- H<sub>2e</sub>: AC and NC will be significantly and positively related to organizational citizenship behavior; however, CC will not be significantly related to OCB.**
- H<sub>3a</sub>: The reliability level of the 3-OC scales in grouped pattern questionnaires will be higher than in randomized pattern questionnaires.**
- H<sub>3b</sub>: The discriminant validity of the 3-OC scales in grouped pattern questionnaires will be worse than in randomized pattern questionnaires.**
- H<sub>3c</sub>: The inclusion of negatively worded items (compared to all positively worded items) will lower the internal consistency reliability of the 3-OC scales.**

**H<sub>3d</sub>: Negatively worded items create an additional factor when used with a sample of Korean employees.**

### **Selected Instruments and Measures**

**Organizational Commitment.** The OCQ and the 3-OC scales were used to assess levels of employee OC. The 9-item (short) version of the OCQ (Mowday et al, 1982) was used for two reasons: (1) to reduce the length of the questionnaire, (2) to increase the psychometric stability of the OCQ by excluding negatively worded items (e.g., Mathieu & Zajac, 1990; Tetrick & Farkas, 1988). The OCQ item that some researchers note measures the intention to quit (“I would accept almost any type of job assignment in order to keep working for this organization”) was also removed from the scale because of its potential to bias analyses involving turnover/turnover intentions (Judge, Thoresen, Pucik, & Welbourne, 1999). Consequently, all the remaining 8 OCQ items were purely attitudinal and positively worded.

Responses to the eight items were measured on a five-point scale (1 = strongly disagree to 5 = strongly agree). The Korean translations of the 8 OCQ items employed in the current study were taken from Oh (1995). Oh employed standard translation and back-translation procedures and reported that the resulting instrument had a conventionally high internal consistency reliability (.90).

The short form of the 3-OC scales (Meyer, Allen, & Smith, 1993) was used. The Korean version of this 18-item scale was adopted from previous research (Ko, 1996; Ko, Price, & Mueller, 1997). This instrument exhibited conventionally acceptable levels of reliability for AC ( $\alpha = .86$  &  $.87$ ) and NC ( $\alpha = .78$  and  $.76$ ) but only a marginally

acceptable level of reliability for CC ( $\alpha = .58$  and  $.64$ ). Each of the three components of OC was measured using a five-point scale (1 = strongly disagree to 5 = strongly agree).

**Perceived Organizational Support.** POS was measured using the 8-item version of the POS developed by Eisenberger et al. (1986). Settoon, Bennett, & Liden (1996) have reported that the 8-item POS has a high internal consistency reliability ( $\alpha = .94$ ).

**Perceived Organizational Justice.** OJ was measured using a 15-item scale adopted from previous research (Niehoff & Moorman, 1993). Six of these items assessed fair procedural justice (e.g., Leventhal, 1980) and the remaining 9 items assessed interactional justice (e.g., Bies & Moag, 1986). However, one interactional justice item (i.e., When decisions are made my job, the general manager deals with me in a truthful manner) was eliminated because the term “truthful” was found to be ambiguous to Korean subjects. Thus, 14 procedural justice items were used in this research. Item responses ranged from 1 (strongly disagree) to 5 (strongly agree). Moorman (1991) reported the internal consistency reliability of each of the two sub-scales to be above  $.90$ .

**Employees' Perceived Side Bets and Job Alternatives.** Employees' perceived side bets were measured using 7 items and employees' perceived job alternatives were measured using 2 items. Both sets of items were adopted from the previous research of Oliver (1990). Item responses ranged from 1 (strongly disagree) to 5 (strongly agree). Oliver reported that the internal consistency reliability of the perceived side bet items was  $.68$ ; the reliability of the job alternatives items was  $.65$ .

**Organizational Citizenship Behavior.** The OCB scale used in the current study was adapted from scales used by Smith, Organ, & Near (1983). The 16 items included in these two scales measure altruistic behavior (seven items) and generalized compliance

behavior (nine items). Smith et al. reported a .88 reliability for the altruistic behavior scale and a .87 reliability for the generalized compliance scale. Respondents were asked to indicate how frequently the behavior associated with each item occurred using a 5-point scale ranging from 1 (never) to 5 (always).

#### **Translation and Back-Translation Procedures**

Although previous Korean translations of the OCQ and the 3-OC scales were available, Korean translations were needed for the other scales used in this study. This was accomplished using translation and back-translation procedures conventionally used in cross-cultural research (Brislin, Lonner, & Thorndike, 1973). These procedures require four steps (Sperber, Devellis, & Boehlecke, 1994).

The first step involves the translation of items from English to Korean. A committee of four experienced bilingual translators (Korean doctoral students in the United States who graduated from Korean universities) translated the 47 items that needed translation from English to Korean. As a group, the translators discussed and reviewed their translations and then modified expressions to enhance the simplicity and understandability of the translation.

The second step involves back-translation from Korean to English. Two “experts” translated the Korean questionnaire-items back to English. One expert was an assistant professor of MIS at a Korean university who obtained his doctoral degree in the United States and had been studying in the United States at least 10 years. The other had been a professor of Criminal Justice Studies at a U.S. university for over least 20 years. Both back-translators had graduated from Korean undergraduate programs and were

highly proficient in both Korean and English; neither of them had prior knowledge about the goals of the current research.

The third step involves a comparison of the translated and back-translated items. Twenty-five volunteers were surveyed about the similarity of language expressions and equivalence of language meanings for each of the 47 items. All 25 volunteers were English-speaking, U.S. graduate-students who were studying business, political science, English, and computer science at a large U.S. university in the Midwest.

The volunteers used two criteria to assess each of the items: comparability of language and similarity of interpretability. Comparability of language reflects the extent to which words and phrases were used similarly in the two languages. Similarity of interpretability reflects the extent to which the meaning of the items was maintained between the two languages. A 7-point Likert scale which ranged from 1 (extremely comparable/extremely similar) through 4 (moderately comparable/moderately similar) to 7 (extremely not comparable / extremely not similar) was employed. A conventionally used rule is that items with a mean score above 3 should be revised to improve their comparability and/or interpretability (Sperber et al., 1994). Item mean scores indicated that 10 of the 47 items required revision (see Appendix A, Table A1).

The fourth step involves the final revision of the items based on the survey results. The 4 bilingual translators involved in step 1 met again to review and revise the 10 problematic items. These translators discussed each of the items thoroughly, and made necessary changes in wording and phrasing. The revised items did not undergo a second round of back-translation or ratings. The final survey items are shown in Appendix A.

## The Preliminary Survey

Prior to administering the main-survey to the sample of South Korean employees, the survey was administered to a preliminary sample of South Korean employees. The primary purposes of the preliminary survey were: to check the readability and understandability of the survey items, to assess the internal consistency reliability of the measures, and to determine the approximate time needed for completion of the main survey.

Preliminary Sample. Preliminary-survey respondents were randomly selected from 6 organizations in South Korea. They were all full-time employees working in organizations in Seoul, Deajeon and Kwangju. A total of 50 subjects were contacted, and 41 successfully completed the preliminary survey (82% response rate).

The average respondent age was 32 years (range = 21 to 58). A total of 33 male employees (80.5%) and 8 female employees (19.5%) completed the survey. There were 21 single (51.2%) and 20 married respondents (48.8%). Respondents had an average tenure of 8.2 years with their organization (range 1 month to 41.8 years). There were 9 high school graduates (22%), 4 junior college graduates (9.8%), 25 college graduates (61%), and 3 respondents with graduate degrees (7.3%). The organizational representation of the respondents was as follows: advertising service (N = 14, 34.1%), transportation service (N = 7, 17.1%), tire manufacturing (N = 2, 4.9%), government agent (N = 5, 12.2%), financial service (N = 11, 26.8%), and university (N = 2, 4.9%).

Reliability. The internal consistency reliability for each measure appears in Table A2 of Appendix A. The reliability levels for all but two of the measurement instruments were at conventionally acceptable levels (i.e., .7 or above, see Nunnally, 1978). However,

the reliabilities for the CCS scale and the side-bet scale were .50 and .65, respectively. Because a reliability coefficient of .55 to .60 is considered marginally acceptable (Nunnally, 1978), the side-bets scale was retained for use without modification. The low reliability of the CCS was not surprising (see Ko et al., 1997). Nonetheless, this scale had to be retained without modification for comparative purposes.

**Item Confusion.** Respondents noted some confusion with 5 of the 16 items used to measure organizational citizenship behavior. Four of the 5 items were negatively worded items. Respondents also noted that one of the items was confusing because it suggested that employees performed the duties of their supervisor. To avoid confusing respondents in the main survey, these five items were removed from the OCB measure.

### **The Main Survey**

The main survey was comprised of 76 items, 8 of which were demographic items.

**Questionnaire Formats.** Three questionnaire formats were developed to examine item grouping and wording effects on the psychometric properties of the 3-OC scales. The first questionnaire format (Type A) contained grouped items (i.e., AC items were grouped together, CC items were grouped together, and NC items were grouped together), and both positively and negatively worded items. The second questionnaire format (Type B) contained randomized items and both positively and negatively worded items. The third questionnaire format (Type C) contained randomized items that were all positively worded (negatively worded OC items were transformed into positively worded items).

**Questionnaire Construction.** Additional consideration was devoted to construction of the questionnaires. There were six different sections in each



questionnaire, one for each construct/scale. A total of 10 different randomized scale combinations were employed. Randomizing scale ordering helped prevent uncontrolled response biases that can occur due to the same scale ordering across all respondents. Based on the recommendation of Roberson and Sunestron (1990), the demographic information was placed at the end of the survey for all questionnaire formats.

### Sample

The subjects in this research represented six different types of organizations in large (Seoul), medium (Daejeon and Kwangju), and small (Jinju) South Korea cities. The organizations, selected because of their diversity in size, product/service orientation, and demographic location, included: an advertising firm located in Seoul, a transportation service company located in Kwangju, a tire manufacturing and selling company located in Seoul and Kwangju, one semi-public and two public agents located in Seoul, Daejeon, and Kwangju, three financial institutes located in Seoul and Daejeon, and three universities located in Seoul, Kwangju and Jinju. These organizations ranged in size from large (3000 employees), to medium (900 employees), to small (20 employees). Respondents represented a variety of departments of their respective organizations, including administrative, clerical, technical, maintenance, and production employees.

Demographic Characteristics. A total of 1,053 South Korean employees participated in the main survey. Demographic characteristics of the sample are summarized in Table 5. Overall, the sample was fairly heterogeneous except for the fact that most respondents were white-collar workers. The demographic breakdown for each questionnaire format is provided in Appendix C.

**Table 5**

**Demographic Distributions**

<b>Demographic</b>	<b>Distributions(N=1053)</b>	<b>Mean/Median</b>	<b>Std. Dev.</b>	<b>Range</b>
Age		33.2 / 32.0	8.12	18-68 Years
Gender	Male: 761 (72.3%) Female: 292 (27.7%)			
Married	Single: 388 (36.8%) Married: 658 (62.5%) Separated: 3 (0.3%) Divorced: 4 (0.4%)			
Tenure		8.20 / 6.2	7.15	0.1-41.8 Years
Education	Below H.S.:12(1.1%) H.S.:251(23.8) J. College: 88 (8.4) College: 592(56.2%) Graduate: 110(10.5%)			
Union	Member: 310(29.4) Non-Member: 743(70.6%)			
White/Blue	White Collar: 1020 (96.9%) Blue Collar: 33 (3.1%)			

Notes: H.S.: High-School; J. College: Junior College.

**Data Collection Procedures**

One respondent at each organization served as the research contact for the organization. Once research contacts secured permission to collect data from their human resource departments, they were given instructions about the study's sampling procedures (i.e., employees should be randomly selected and should represent all ranks of employees from low to high). The questionnaires were administered during normal working hours or break periods, either in person or through the organization's mail system. Respondents who wanted to were allowed to take the questionnaires home to complete.

All questionnaires were accompanied by a cover letter that addressed anonymity and confidentiality issues; respondents were informed that the questionnaires were for academic research use only and that no one in the company would see their responses. Subjects were instructed to return their completed questionnaire in the envelope supplied with the questionnaire. Respondents returned their sealed envelopes directly to their research contact-person or sent it to this person through the campus mail (university settings) or to the study's researcher via the regular postal service. Overall response rates as well as the useable response rates for each organization are reported in Table 6.

**Table 6**  
**Response Rates and Useful Data**

<b>Organization</b>	<b>Distribution</b>	<b>Return</b>	<b>Not Useable</b>	<b>Final Data</b>
<b>Advertising</b>	270	233 (86.2%)	6	227 (84.0%)
<b>Transportation</b>	270	201(74.4%)	13	188(69.6%)
<b>Tire Manufacturing</b>	150	96(64.0%)	5	91(60.6%)
<b>Public &amp; Semi-public</b>	270	217(80.3%)	10	207(76.6%)
<b>Financial Institute</b>	270	241(89.2%)	4	237(87.7%)
<b>University</b>	150	106(70.6%)	3	103(68.6%)
<b>Total</b>	1380	1094(79.2%)	41	1053(76.3%)

**Analyses**

Several types of analyses were used to test the various research hypotheses. The type of analysis most appropriate for testing a specific research hypothesis was used to test that hypothesis. For example, the factor structure of the 3-OC scales were examined using confirmatory factor analysis. Chronbach's alpha was used to compute internal consistency reliabilities. Finally, relationships among the scales and important OC-related outcome variables were examined using zero-order correlations.

## CHAPTER 4 STATISTICAL ANALYSIS

This chapter focuses on a statistical evaluation of the psychometric properties of the 3-OC Model and its scales using a sample of Korean employees. Following conventional construct validation procedures (Churchill, 1979; Nunnally, 1978; Schwab, 1980), the psychometric properties of the 3-OC scales are evaluated on the basis of their reliability, dimensionality (factor structure), and convergent/discriminant validity. These measures are then utilized to identify whether the psychometric properties of the 3-OC constructs vary across the three different questionnaire formats.

### Multivariate Normality of OC Raw Data

Research suggests that normality violations lead to biased statistical results by inflating the chi-square goodness of fit index and/or increasing the critical parameter values in structural equation modeling (Wang, Fan, & Wilson, 1996; West, Finch, & Curran, 1995).

There are several means to detect the extent of multivariate normality of raw data. Most commonly, multivariate normality is detected through a test of univariate normality for each variable on the basis of its skewness and kurtosis. Extreme nonnormality exists when skewness is greater than 3 and kurtosis is greater than 10 (Kline, 1998), yet the results reported in Table 7 are far below these thresholds. Although most OC data in Table 7 deviate moderately from perfect normality (cf. Chou & Bentler, 1995), research suggests that maximum likelihood estimators are robust to moderate deviations in the data (Bollen, 1989).

**Table 7**  
**Univariate Normality Statistics (Skeweness and Kurtosis)**

<b>Variables</b>	<b>Skeweness</b>	<b>Kurtosis</b>	<b>Variables</b>	<b>Skeweness</b>	<b>Kurtosis</b>
<u>AC1</u>	-0.14	-0.62	<u>AC2</u>	-0.35	-0.02
<u>AC3</u>	-0.28	-0.39	<u>AC4</u>	-0.39	-0.24
<u>AC5</u>	-0.22	-0.37	<u>AC6</u>	-0.39	-0.31
<u>CC1</u>	-0.11	-0.41	<u>CC2</u>	-0.36	-0.40
<u>CC3</u>	-0.12	-0.62	<u>CC4</u>	0.02	-0.62
<u>CC5</u>	-0.29	-0.21	<u>CC6</u>	-0.29	-0.68
<u>NC1</u>	-0.28	-0.44	<u>NC2</u>	-0.22	-0.56
<u>NC3</u>	0.18	-0.57	<u>NC4</u>	-0.16	-0.20
<u>NC5</u>	-0.46	-0.32	<u>NC6</u>	0.01	-0.27

*Notes:* AC = Affective Commitment; CC = Continuance Commitment;  
NC = Normative Commitment.

### Reliability of 3-OC Measures

A measure of internal consistency reliability (coefficient alpha) is employed here to assess the reliability of each 3-OC scale (Cronbach, 1951).

What is a conventionally acceptable level of reliability is a function of both the type of decisions made and the maturity of the instruments involved. For instance, high reliabilities are recommended when scores are used in decision making that is important to the individual (such as selection or placement decisions); lower reliability is tolerable during the developmental stages of a measurement instrument<sup>3</sup> (Pedhazur & Schmelkin, 1991). Because the present research does not involve decision making that affects individual survey respondents and the 3-OC scales have been the subject of over 35 research studies, the recommended alpha level that represents an acceptable level of reliability is .80 and above (Nunnally, 1978).

---

<sup>3</sup> Nunnally (1967) stated that “In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of .60 or .50 will suffice” (p. 226).

Although the internal consistency reliability of the NCS meets conventionally acceptable levels for mature instruments, the reliability of the ACS (.77) and CCS (.62) do not. In fact, the internal consistency reliability of the CCS is quite low by conventional standards.

### Dimensionality of the 3-OC Scales

#### 1. General Explanations for Confirmatory Factor Analysis

For this study, confirmatory factor analysis (CFA) was used to identify the hypothesized factor structure of the 3-OC Model. CFA was used instead of exploratory factor Analysis (EFA) because CFA is more useful for the purpose of determining whether an extant factor structure exists (Anderson & Gerbing, 1988; Bagozzi, Yi, & Phillips, 1991; Church & Burkey, 1994; Hinkin, 1995; Schriesheim & Eisenbach, 1995; Stone-Romero, Weaver & Glenar, 1995; Thompson & Daniel, 1996). As noted by Mueller, Wallace, and Price (1992), “In exploratory factor analysis, the factor structure is not specified a priori and the data are used to generate the factor model. In contrast, in confirmatory factor analysis, substantively motivated constraints are imposed on the factor model and the data are used to confirm the substantively derived model” (p. 217). Moreover, Stone-Romero, Weaver, & Glenar (1995) note that “construct validation efforts are better served by clearly-stated hypotheses about relationships between and among measures of various constructs than they are by attempts to define higher-order constructs through an exploratory method” (p. 154).

All 3-OC models were analyzed using EQS Structural Equation Modeling with maximum likelihood estimators (Bentler, 1995). This procedure enables researchers to analyze either observed or latent unobserved variables (i.e., constructs) using omnibus fit

indexes, such as the Normed Fit Index (NFI; Bentler & Bonett, 1980), the Non-Normal Fit Index (NNFI; Bentler & Bonett, 1980), Comparative Fit Index (CFI; Bentler, 1990), and Chi-Square statistics.

Fit indices were also utilized to assess the nested models that were analyzed (Bollen & Long, 1992; Marsh, Balla, & McDonald, 1988; Tanaka, 1993). However, research has provided evidence suggesting that the various fit indices have differing degrees of usefulness (Joreskog & Sorbom, 1993). For example, Kaplan (1990), Joreskog & Sorbom (1993), Mueller (1996), and others have argued that the chi-square test can easily lead to spurious conclusions because of its extreme sensitivity to sample size.

Thus, different indices were examined to determine the most appropriate choices for analyzing the model's goodness of fit in the current study. Included in this examination were the following fit indices: NFI, NNFI, CFI, and the ratio of chi-square relative to the degrees of freedom ( $\chi^2/df$ ). Of these, the CFI index (a revised version of NFI) has received strong support (e.g., see Gerbing & Anderson, 1993). Thus, both CFI and NFI indices were used to ascertain the fit of the various models examined in the current study.

Researchers have generally recommended that NFI and CFI values of .90 or above indicate a good fitting model (cf. Frone, Russell, & Cooper, 1994; Bentler, 1990; Bentler & Bonnett, 1980; Hoyle & Panter, 1995; Hu & Bentler, 1995; Mulaik, James, Van Alstine, Bennet, Lind, & Stillwell, 1989).

## 2. Analysis of the 3-OC Data

Table 8 contains a summary of the factors involved in each model, whether the factors were oblique or orthogonal, and the fit indices for the ten models analyzed. Please note that Models 11 and 12 were used primarily to assess the dimensionality of CC and are reported below.

As recommended by March & Hoceuar (1994), the model with the fewest constraints was analyzed first and the model with the most constraints last. The null model (specifying no common factor and independence) was used as the baseline against which to compare all other models.

**Table 8**  
**Overall Fit Indices of Competing Models**  
(n = 1053)

Models	$\chi^2/df$	NFI	NNFI	CFI
Model 1(Null Model)	5680.27/153	NA	NA	NA
Model 2(One-Factor Model)	1300.95/135	.771	.761	.789
Model 3(CC+NC vs. AC), Orthogonal	1841.87/135	.676	.650	.691
Model 4(CC+NC vs. AC), Oblique	1221.24/134	.785	.775	.803
Model 5(AC+NC vs. CC), Orthogonal	1568.32/135	.724	.706	.741
Model 6(AC+NC vs. CC), Oblique	1179.65/134	.792	.784	.811
Model 7(AC+CC vs. NC), Orthogonal	2252.00/135	.603	.566	.617
Model 8(AC+CC vs. NC), Oblique	1537.06/134	.729	.713	.746
Model 9(AC vs. CC vs. NC), Orthogonal	2204.73/135	.612	.576	.626
Model 10(AC vs. CC vs. NC), Oblique	1108.93/132	.805	.795	.823
Model 11(AC, CC <sub>alt</sub> , CC <sub>sac</sub> , NC), Orthogonal	2440.11/135	.570	.527	.583
Model 12(AC, CC <sub>alt</sub> , CC <sub>sac</sub> , NC), Oblique	1064.55/129	.813	.799	.831

The results of the confirmatory factor analyses show that the three-factor oblique model provided the highest fit index (NFI = .805; CFI = .823). However, the model which best fits the data can be identified only by comparing the incremental fit indexes for competing models. The most commonly used method to test competing models is the chi-square difference test, which measures the change in chi-square relative to the differences in the number of free parameters between two models (Loehlin, 1987). Table



9 reports chi-square differences among the oblique models which were the best-fitting models overall.

**Table 9**  
**Chi-Square Difference Between Competing Oblique Models**

<b>Models</b>	<b><math>\Delta\chi^2</math></b>	<b><math>\Delta df</math></b>	<b><math>\chi^2</math>-Test</b>
<b>(Model 10-Model 1)</b>	<b>4531.34</b>	<b>21</b>	<b>32.67</b>
<b>(Model 10-Model 2)</b>	<b>192.02</b>	<b>3</b>	<b>7.82</b>
<b>(Model 10-Model 4)</b>	<b>112.31</b>	<b>2</b>	<b>5.99</b>
<b>(Model 10-Model 6)</b>	<b>70.72</b>	<b>2</b>	<b>5.99</b>
<b>(Model 10-Model 8)</b>	<b>428.13</b>	<b>2</b>	<b>5.99</b>

Note: chi-square test values were based on  $\alpha=.05$

The 3-factor oblique model (Model 10) is significantly different from all other oblique models. Thus, the 3-factor oblique model is the best-fitting model. As additional support for this conclusion, the CFI difference between competing models shown in Table 8 is greater than 0.01 (cf. Dunham, Grube, & Castaneda, 1994; Hom & Griffeth, 1991; Widaman, 1985).

#### Sub-dimensionality of CCS

Researchers have debated whether CC is a unitary or bi-dimensional construct (Allen & Meyer, 1990; Dunham et al., 1994; Hackett et al., 1994; McGee & Ford, 1987). According to research that concluded CC was bi-dimensional, there are two types of CC: (1) CC due to a perceived lack of job alternatives ( $CC_{alt}$ ) and (2) CC due to a high sense of personal sacrifice ( $CC_{sac}$ ) (Allen and Meyer, 1990). However, based upon the suggestions of Allen & Meyer (1990) and Meyer & Allen (1991), this research hypothesized that CC would be a unitary construct involving a high sense of personal sacrifice in cultures such as the Korean culture.

Confirmatory factor analyses were performed to examine the structure of CC. Four models were compared. Model 1 was the null model that constrained each of the 6 observed CC variables (i.e., items) as independent factors. Model 2 constrained all 6 observed CC variables as one factor. Models 3 and 4 both constrained the CC<sub>alt</sub> and CC<sub>sac</sub> items separately as two factors, either orthogonally or obliquely. Fit indices for these four models are presented in Table 10.

**Table 10**  
**Overall Fit Index for the CC Models**

Models	$\chi^2$ /df	NFI	NNFI	CFI
Model 1(Null Model)	629.43/15	NA	NA	NA
Model 2(One-Factor)	63.60/9	.899	.852	.911
Model 3(CC <sub>alt</sub> vs. CC <sub>sac</sub> ), Orthogonal	298.99/9	.525	.213	.528
Model 4(CC <sub>alt</sub> vs. CC <sub>sac</sub> ), Oblique	63.23/8	.900	.831	.910

Notes: NFI: Normed Fit Index; NNFI: Non-normal Fit Index; CFI: Comparative Fit Index; CC<sub>alt</sub>: Low Alternative Continuance Commitment; CC<sub>sac</sub>: High Sacrifice Continuance Commitment.

The overall fit indices for the four proposed CC models indicate that the one-factor model best fits the data. Moreover, the estimated correlation between the two CC sub-dimensions ( $r = .997$ ) strongly suggests they comprise a unitary factor.

Models 11 and 12 in Table 8 include CC as a bi-dimensional construct. Although the four-factor oblique model (Model 12) showed the best fit indices (.813 for NFI; .799 for NNFI; .831 for CFI), this model was not a significant improvement over the three-factor oblique model (Model 10).

Although the 3-factor oblique model (Model 10) is the best-fitting model, it is nonetheless not a “good fitting” model because its fit indices do not equal or exceed .90 (Bentler, 1990; Holey & Panter, 1995). This suggests that the model may be misspecified or that the OC items are influenced by several other factors.

## Item Analysis

Valuable information can be gleaned by examining the factor loading of each variable (i.e., item) on the OC construct (Fornell & Larcker, 1981). Table 11 shows the standardized factor loadings of each OC variable.

**Table 11**  
**Item Factor Loadings for the 3-OC Model**

<b>OC Variables or Items (standardized loadings)</b>
AC1: I would be very happy to spend the rest of my career with this organization (.724)
AC2: I really feel as if this organization's problems are my own (.562).
AC3: I do <u>not</u> feel a strong sense of belonging to my organization (.583).
AC4: I do <u>not</u> feel like emotionally attached to this organization (.528).
AC5: I do <u>not</u> feel like part of the family at my organization (.578)
AC6: This organization has a great personal meaning for me (.581).
CC1: Right now, staying with my organization is a matter of necessity as much as a desire (.345).
CC2: It would be very hard for me to leave my organization right now, even if I wanted to (.411).
CC3: Too much of my life would be disrupted if I decided I wanted to leave my organization right now (.649).
CC4: I feel that I have too few options to consider leaving this organization (.566).
CC5: If I had not already put so much of myself into this organization, I might consider working elsewhere (.321).
CC6: One of the few negative consequences of leaving this organization would be the scarcity of available alternatives (.447).
NC1: I do <u>not</u> feel any obligation to remain with my current employer (.677).
NC2: Even if it were to my advantage, I do not feel it would be right to leave my organization (.555).
NC3: I would feel guilty if I left my organization now (.578).
NC4: This organization deserves my loyalty (.751).
NC5: I would not leave my organization right now because I have a sense of obligation to the people in it (.535).
NC6: I owe a great deal to my organization (.672).

Two CC items do not load well (.345 for CC1 and .321 for CC5). Low factor loadings for these two CC items were also reported by Ko et al. (1997) in their analysis of the structure of the 3-OC scales.

Variance-extracted measures for each construct were used to assess whether the specified OC variables represent well their specified construct. Variance-extracted measures<sup>4</sup> measure the amount of variance captured by a construct in relation to the variance that occurs due to random measurement error. The variance-extracted values for each construct (.352 for AC, .226 for CC, and .387 for NC) were lower than the recommended level of .50 (Fornell & Larcker, 1981). This indicates that more than half of the variance is not accounted for by the construct, which strongly suggests that several OC items contribute to more than one construct. The conventionally low fit indices reported above for the 3-factor model may be partially attributable to these cross loadings.

The discriminant validity of each construct was measured by comparing the variance-extracted estimate for each construct to the squared correlations between the two compared constructs (see Table 12). Fornell and Larcker (1981) stated that a hypothesized construct has discriminant validity if extracted-variance values are greater than the amount of variance that the construct shares with other constructs (i.e., the squared factor correlation estimates).

The squared correlation-estimates between constructs in Table 12 are greater than the calculated variance estimates (.352 for AC, .226 for CC, and .387 for NC). This suggests that the correlations across the constructs were higher than warranted and this resulted in poor discriminant validity (cf. Anderson & Gerbing, 1988).

---

<sup>4</sup> Calculated by dividing the sum of each squared factor loading by the sum of each squared factor loading plus the sum of the error variances.

**Table 12**  
**Factor Correlation Estimates (r) of OC Constructs**

	AC	CC	NC
AC	----		
CC	.632 (.399)	----	
NC	.905(.819)	.805(.648)	----

Note: squared correlation estimates are in parentheses

The item analyses suggest that the 3-OC Model does not provide an acceptable representation of the three-factor structure of OC. As noted above, the models fit indices were far below the acceptable level of .90. Moreover, individual items loaded on several factors which suggests that the 3-OC scales lack discriminant validity.

**Convergent Validity of the ACS and the OCQ**

Based on previous research that scores on the ACS and OCQ scales were highly correlated and that ACS and OCQ items cross loaded heavily on one another, this research hypothesized that the ACS and OCQ measured the same or similar constructs.

To determine the convergent validity of the ACS and OCQ, confirmatory factor analysis comparing three models was performed. A one-factor model grouped all AC, CC, and OCQ items into one factor. A two-factor model grouped AC and OCQ items into one factor; CC items were grouped in the other factor. A three-factor model grouped AC, CC, and OCQ items into three different factors. Both the two- and three-factor models were oblique models. Table 13 presents the overall fit indices of the proposed models.

**Table 13**  
**CFA for AC and OCQ**

Models	$\chi^2 / df$	NFI	NNFI	CFI
Null Model	6917.07/210	NA	NA	NA
One Factor (AC/OCQ/CC)	1815.18/189	.738	.731	.758
Two Factor (AC+OCQ/CC)	1600.42/188	.769	.765	.789
Three Factor (AC/OCQ/CC)	1593.29/186	.770	.763	.790

Notes: NA: Not Applicable; AC: Affective Commitment; CC: Continuance Commitment; OCQ: Organizational Commitment Questionnaire.

Based on its higher fit index, the three-factor model appears to be the best fitting model. However, the chi-square of the difference between the two- and three-factor models (adjusted for the difference in the number of model constraints) was insignificant. Moreover, the difference in the fit indices between the two models was not greater than .01. Thus, the two-factor model appears to be the best choice since it is subject to fewer constraints. This provides reasonable evidence that the OCQ converges with the ACS.

#### Nomological Network of the 3-OC Model

Chapter 2 described some of the variables hypothesized to be part of the nomological network within which the 3-OC constructs exist (e.g., see Meyer & Allen, 1997 and Schwab, 1980). By assessing the extent to which the hypothesized relationships between the 3-OC constructs and their determinants and consequences are supported, the construct validity of the 3-OC constructs is determined (cf. Niehoff and Moorman, 1993).

Prior to an evaluation of the structural relationships in the nomological network, a preliminary assessment of the measurement model associated with each variable should be performed (Anderson & Gerbing, 1988). This preliminary assessment was accomplished by testing the linear relationship between the observed variables (i.e.,

indicators) and unobserved variables (i.e., latent variables or constructs) in the nomological network (Williams, 1995). Thus, following procedures discussed by Kenny (1979) and Williams & Hazer (1986), separate confirmatory factor analyses of the proposed determinants and consequences of OC were conducted.

Two AC determinants (organizational support and organizational justice), two CC determinants (job alternatives and side-bets), and one outcome variable (organizational citizenship behavior) were individually subjected to confirmatory factor analyses. Results of the CFA's are reported in Table 14.

**Table 14**  
**Estimated Factor Loading of Selected OC Variables**

Items	Loadings
<b><u>Organizational Commitment Questionnaire (CFI = .934)</u></b>	
1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	.41
2. I talk up this organization to my friends as a great organization to work for.	.77
3. I find that my values and the organization's values are very similar.	.52
4. I am proud to tell others that I am part of this organization.	.65
5. This organization really inspires the very best in me in the way of job performance.	.50
6. I am extremely glad that I chose this organization over others I was considering at the time I joined.	.62
7. I really care about the fate of this organization.	.48
8. For me this is the best of all possible organizations for which to work.	.70
<b><u>Perceived Organizational Support (CFI=.945)</u></b>	
1. Even if I did the best job possible, the organization would fail to notice.	.83
2. The organization cares about my general satisfaction at work.	.77
3. The organization shows very little concern for me.	.77
4. The organization strongly considers my goals and values.	.71
5. The organization takes pride in my accomplishments at work.	.71
6. The organization cares about my opinions.	.69
7. Help is available from the organization when I have a problem.	.80
8. The organization really cares about my well-being.	.70
<b><u>Organizational Justice (Two-Factor Oblique Model: CFI = .941)</u></b>	
<b><i>Procedural Justice (Fair Procedures)</i></b>	
1. Job decisions are made by the general manager in an unbiased manner.	.71
2. My general manager makes sure that all employee concerns are heard before job decisions are made.	.71
3. To make a job decision, my general manager collects accurate and complete information.	.56

4. My general manager clarifies decisions and provides additional information when requested by employees.	.76
5. All job decisions are applied consistently across all affected employees.	.65
6. Employees are allowed to challenge or appeal job decisions made by the general manager.	.58
<i>Interactional Justice</i>	
1. When decisions are made about my job, the general manager treats me with kindness and consideration.	.75
2. When decisions are made about my job, the general manager treats me with respect and dignity.	.67
3. When decisions are made about my job, the general manager shows concern for my rights as an employee.	.75
4. Concerning decisions made about my job, the general manager discusses the implications of the decisions with me.	.70
5. The general manager offers adequate justification for decisions made about my job.	.77
6. When making decisions about my job, the general manager offers explanations that make sense to me.	.77
7. My general manager explains very clearly the decisions made about my job.	.57
8. When decisions are made about my job, the general manager is sensitive to my personal needs.	.71
<u>Employees' Perceived Side Bets (CFI = .838, .935<sup>*</sup>)</u>	
1. I feel that I have worked a lot of unpaid overtime here.	.31
2. I have ignored other attractive job opportunities to stay here.	.16
3. I have a lot of close friends at this place.	.53
4. All in all I have put a lot into working here.	.67
5. I would have to give up a lot if I left this place.	.47
6. Working here is just like any other job to me.	.50
7. Overall, I've made investments in this place which are important to me.	.43
<u>Organizational Citizenship Behavior (Two-Factor Oblique Model: CFI = .873)</u>	
<i>Altruism:</i>	
1. I help other employees with their work when they have been absent.	.41
2. I take the initiative to orient new employees to the department even though it is not part of my job description.	.60
3. I help others when their work load increases.	.61
4. I make innovative suggestions to improve the overall quality of the department.	.51
5. I willingly attend functions not required by the organization, and help in its overall image.	.68
6. I volunteer to do things not formally required by the job.	.64
<i>Conscientiousness:</i>	
1. I exhibit punctuality in arriving at work on time in the morning and after lunch breaks.	.49
2. I take undeserved work breaks.	.56
3. I coast toward the end of the day.	.55
4. I give advance notice if unable to come to work.	.38
5. I spend a great deal of time in personal telephone conversations.	.59



Note: bold underlined items loaded  $<.35$  and were removed. Fit indices were calculated after items with low factor loadings were removed.

### Assessment of Nomological Validity

The factor loadings and CFI index associated with each measurement model suggest that the selected constructs are meaningful. To compute a scale score for each construct, all observed variables whose factor loadings were  $.35$  or greater were retained (this resulted in the removal of two side-bets items). These scale scores were used to determine the relationships between each construct and the 3-OC constructs.

Table 15 displays the means, standard deviations, and internal consistency reliability coefficients for all scales, including the three OC scales. The correlations across measures occur at the intersection of any two measures of interest. Alpha coefficients for each measure are presented along the diagonal in the correlation matrix. For the most part, the alpha values are at conventionally acceptable levels considering that some measures (e.g., perceived side-bets) are not mature instruments. Moreover, the inter-correlations among the measures suggest there is no evidence of multicollinearity (Billings & Wroten, 1978).

Hypothesis 1<sub>c</sub> proposes that there will be a significant and positive relationship between AC and NC. AC and NC are significantly correlated with one another and both AC and NC show similar correlation patterns with their determinants as well as OCB (cf. Table 15). That is, there is a large correlation<sup>5</sup> between organizational support and both

---

<sup>5</sup> Cohen (1988) provided three levels of correlation with respect to effect size, which he classified as the small ( $r=.10$ ), medium ( $r=.30$ ), and large ( $r=.50$ ).

AC ( $r=.50$ ) and NC ( $r=.49$ ) as well as moderate correlations between AC and NC and the measure of OCB (AC-OCB = .40 and NC-OCB = .33).

**Table 15**  
**Means, Standard Deviations, and Correlations**  
**(n = 1053)**

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. OCQ	3.24	.55	86												
2. AC	3.35	.62	79	77											
3. CC	3.16	.65	42	36	62										
4. NC	3.13	.64	70	66	56	80									
5. OS	2.99	.54	57	50	24	49	86								
6. PJ	3.21	.59	41	41	20	35	52	92							
7. PJ1	3.81	.73	45	38	17	32	48	93	82						
8. PJ2	3.24	.61	53	40	20	33	51	97	82	89					
9. AT	2.95	.75	54	39	46	41	28	18	19	16	58				
10. SB	3.49	.51	53	53	35	47	34	30	26	30	33	65			
11. OCB	3.62	.47	39	40	19	32	24	27	22	28	06	44	77		
12. OCB1	3.36	.54	42	41	20	36	29	27	22	29	10	43	85	77	
13. OCB2	3.93	.57	22	24	12	17	10	18	15	18	01	29	81	39	61

Notes: AC: Affective Commitment; CC: Continuance Commitment; NC: Normative Commitment; Perceived Organizational Support; PJ: Perceived Organizational Justice; PJ1: Fair Procedure Justice; PJ2: Interactional Justice; AT: Perceived Lack of Job Alternatives; SB: Perceived Side bets; OCB: Organizational Citizenship Behavior; OCB1: Altruism; OCB2: Conscientiousness. Alpha coefficients are presented in the diagonal.

All correlations are significant ( $p<.001$ ) except where underlined.  
Decimal points for correlations have been omitted.

Hypothesis 2<sub>a</sub> and 2<sub>b</sub> propose significant and positive relationships between AC and the determinants organizational support and justice. As shown in Table 15, AC is significantly related to OS ( $r = .50$ ,  $p<.001$ ) which supports H2<sub>a</sub>. This is consistent with results reported in previous research (e.g.,  $r = .58$ , Settoon, Bennett, & Liden, 1996). Moreover, Table 15 shows that a significant relationship exists between AC and PJ ( $r = .41$ ,  $p<.001$ ) which supports H2<sub>b</sub>. Both dimensions of procedural justice (i.e., fair procedures - PJ1 and interactional justice – PJ2) are significantly related to AC ( $r = .38$ ,  $p<.001$  &  $r = .40$ ,  $p<.001$ ).

H2<sub>c</sub> proposes a significant relationship between perceived investments (side bets - SB) and CC. This hypothesis is supported by the significant correlation between the two

measures ( $r = .35, p < .001$ ) shown in Table 15.  $H_{2d}$  proposes a significant relationship between perceived lack of job alternatives (AT) and CC which is also confirmed by the significant correlation between these two measures ( $r = .44, p < .001$ ) in Table 15.

Finally,  $H_{2e}$  proposes relationships between the three OC constructs and organizational citizenship behavior (OCB): AC and NC will be significantly related to OCB, but CC will not. The correlations between AC and OCB ( $r = .40, p < .001$ ) and NC and OCB ( $r = .32, p < .001$ ) are both significant.

There is a significant positive relationship between CC and OCB ( $r = .19, p < .001$ ). However, although this relationship is statistically significant, it may not have practical significance. Cohen (1988) and others (e.g., Aron & Aron, 1994) suggest that large sample sizes can often produce statistically significant results that have no practical significance.

One method for determining practical significance is to evaluate effect size (the shared variance between two variables) (Cohen, 1988; Stevens, 1992). The correlation between CC and OCB is .19, which means that the shared variance is a mere 3 percent. Schafer (1990) and Spencer (1995) both suggest that when correlations fall below .30 their low effect sizes indicate they may not have practical significance even though they exceed critical values. With this caveat in mind,  $H_{2e}$  is supported.

#### Statistical Analysis of the Three Questionnaire Formats

Hypotheses 3a and 3b focused on the impact of grouped and randomized questionnaire items on the psychometric properties of the 3-OC scales. Hypotheses 3c and 3d focused on the impact of negatively worded questionnaire items on the psychometric properties of the 3-OC scales.

As noted in Chapter 3, three different questionnaire formats were developed to examine these hypotheses. The first questionnaire format (Type A) contained grouped items (i.e., AC items were grouped together, CC items were grouped together, and NC items were grouped together), and both positively and negatively worded items. The second questionnaire format (Type B) contained randomized items and both positively and negatively worded items. The third questionnaire format (Type C) contained randomized items that were all positively worded (negatively worded OC items were transformed into positively worded items).

An examination of the multivariate normality of the study variables across the three questionnaire formats showed that some variables deviated moderately from normality (see Appendix D, Table D1). However, the magnitude of the deviations were not large enough to bias the maximum likelihood estimators, especially in light of their robustness to deviations from normality (Bollen, 1989).

#### Internal Consistency Reliabilities across the Three Questionnaire Formats

The internal consistency reliabilities of the 3-OC constructs across the three questionnaire formats are presented in Appendix D (Table D2).  $H_{3a}$  proposed that the internal consistency reliability of the 3-OC scales will be higher in grouped than in randomized-item questionnaires. All significance tests were performed using Fisher's  $Z_r$  transformation (cf. Howell, 1992).

Mixed results related to  $H_{3a}$  were obtained when Type A and Type B questionnaires were compared. In support of  $H_{3a}$ , the grouped CC and NC items in Type A exhibited significantly higher reliabilities than the same items randomized in Type B. However, the AC items in Type A exhibited a significantly lower reliability than in Type

**B. Moreover, the reliability levels of Type B and Type C AC items were not significantly different from one another. All other differences were non-significant.**

**In sum,  $H_{3a}$  is confirmed for CC and NC but not for AC. At best these results can be described as inconclusive.**

**The results presented here also provided evidence that negatively worded items did not significantly lower the internal consistency reliabilities of the 3-OC scales. That is,  $H_{3c}$  was not supported because there were no significant differences between the reliabilities of AC and NC in Type B (randomly ordered items, both positively and negatively worded) and the reliabilities of AC and NC in Type C (randomly ordered items, all positively worded).**

**Although item level analyses were not done, several additional analyses were undertaken to further examine these relationships. For example, scale reliabilities were computed for Types A and B with negative items removed. Also, scale reliabilities with each item removed were computed. Because these results did not further illuminate the relationships between scale formats, they are not reported here.**

#### **Dimensionality of the 3-OC Scales across the Three Questionnaire Formats**

**Appendix D (Table D3) presents the fit indices for all models across the three types of questionnaires. The three-factor oblique model (Model 10) is the best fitting model (e.g., CFI = .859 in Type A; CFI = .860 in Type B, and CFI = .847 in Type C). These results suggest that the dimensionality of the 3-OC scales is not influenced by the examined questionnaire format differences. Unfortunately, none of the models associated with any of the questionnaire formats meet conventionally accepted fit thresholds.**

### Item Analyses across the Three Questionnaires

The factor loadings of individual items across questionnaire formats are presented in Appendix D (Table D4). All but three AC items loaded on the hypothesized AC factor regardless of questionnaire format: AC3, AC4, and AC5 on Type A loaded much less cleanly when compared to their loadings on Types B and C.

The means and standard deviations of the three AC items across the three different questionnaire formats are presented in Appendix D (Table D5). Tests of mean differences for independent samples (Howell, 1992) were used to test the mean differences between these items across the three different questionnaire formats. The means of these AC items on Type A are significantly lower than the means of these items on either Type B or C. However, there are no significant mean difference between these items on Type B and C questionnaires.

In keeping with the suggestion of Luthans et al. (1984), the present results provide support for the notion that Korean subjects do not notice or understand negatively worded items when grouped together in a questionnaire. Confirmatory factor analysis was used to examine H<sub>3d</sub>, which proposed that negatively worded items would create an additional artificial factor when used with a sample of Korean employees.

Three different oblique models were compared using data from the Type A questionnaire format. These models included Model 1, a three-factor model (AC, CC, NC), Model 2, a four-factor model in which one NC and three AC negatively worded items were constrained as the fourth factor, and Model 3, a four-factor model in which three AC negatively worded items were constrained as the fourth factor.

Although none of the models produced a fit index that met conventionally acceptable standards for a good fitting model, the results indicated that the two four-factor models best fit the data (Model 3 =  $\chi^2 = 398.1$  with  $df = 129$ , NFI = .829, NNFI = .854, CFI = .877; Model 2 =  $\chi^2 = 424.42$  with  $df = 129$ , NFI = .818, NNFI = .839, CFI = .864; Model =  $\chi^2 = 439.10$  with  $df = 132$ , NFI = .812, NNFI = .837, CFI = .859). Thus, the results suggest that negatively worded AC items may lead to the creation of artificial factors, when negatively worded questionnaire items are used with Korean samples.

#### Discriminant Validity across the Three Questionnaire Formats

The discriminant validity of the three OC constructs across the three questionnaires was the focus of H<sub>3b</sub>. This was assessed using variance-extracted estimate measures.

The obtained average variance-extracted measures of each construct are summarized in Appendix D (Table D6). As can be seen, all the measures are below the recommended .50 threshold for meaningful variance-extracted estimates (range = .18 to .47). These results suggest that several 3-OC items are loading at moderate or higher levels on one or more of the other 3-OC constructs. Thus, more than half of the variance associated with each construct is not accounted for by the construct's items. These low variance-extracted estimates indicate that the discriminant validity of the three OC constructs is poor regardless of the questionnaire format. Thus, H<sub>3b</sub> is not supported.

#### Nomological Validity Across the Three Questionnaire Formats

The nomological validity of the 3-OC constructs was assessed for each of the three different questionnaire formats. The intercorrelations between variables for each

study hypothesis related to the nomological validity of the 3-OC scales for each format is presented in Table D10 in Appendix D. Tables D7, D8, and D9 of Appendix D show the means, standard deviations, and correlations across the study variables by questionnaire format.

Although most study hypotheses were consistently confirmed regardless of format, the results for the hypotheses related to CC were very mixed across the three formats. For example, this study hypothesized that there would be no relationship between CC and POS, PJ, or OCB, yet CC was positively related to these variables in the Type A questionnaire (grouped items). However, in the Type C questionnaire (randomly ordered items) these relationships were non-significant, and in the Type B questionnaire (randomly ordered, all positive items) they were not practically significant.

Thus, overall the results demonstrated support for the nomological validity of both AC and NC regardless of questionnaire format, but differences in the nomological validity of CC across the different questionnaire types.



## CHAPTER 5

### SUMMARY AND DISCUSSION

This study of organizational commitment had two primary areas of focus. The first focus was on whether Meyer and Allen's (1991) 3-OC Model (validated using U.S. and Canadian samples) was generalizable to South Korean employees. The generalizability of measurement instruments to other countries/cultures has become increasingly more important as globalization has quickened, and we need to better understand whether theories developed and validated in one country/culture can be used to predict the same phenomena in others (e.g., see Segal, Lonner, & Berry, 1998). Thus, cross-cultural studies have importance not only because the cultures of countries such as Japan and Korea may be markedly different from those of Western countries but also because they are global economic powers.

Consider the company that wants to build a new facility and can choose to locate it in any number of different countries. This company would obviously want to consider all relevant financial and non-financial factors that affect this decision. If the financial factors were roughly equivalent across countries, the company would be wise to consider factors related to the quality of each country's labor market. These factors would include, among others, the availability and cost of labor as well as the productivity and stability of each country's labor force.

OC is directly and indirectly related to these important outcome variables. Thus, if this firm were able to estimate the OC of employees in each country, it would be better able to decide the best country in which to locate its new facility. Thus, firms that better

understand the OC of current or potential employees are better able to more accurately predict a myriad of factors related to corporate profitability.

The second focus of the current study was on whether changes in questionnaire format impacted the psychometric properties of Meyer & Allen's 3-OC scales. This is very important because most of the research about psychological phenomena (e.g., organizational commitment) relies exclusively on the questionnaire method. In terms of the current study, this is also important because cultural differences might affect questionnaire results on their own or interactively with changes in questionnaire format.

Results related to the first area of focus indicated that the 3-OC model of Meyer and Allen (1991) is not generalizable to South Korean employees. Several sets of analyses led to this conclusion.

First, the internal consistency reliability levels of two of the 3-OC scales were lower than the threshold recommended for research involving a mature measurement instrument. Even when potentially problematic items were removed (e.g., negatively worded items or items that did not load on the hypothesized factor), the reliabilities of the 3-OC scales changed only marginally. Second, the fit indices for the various models tested all failed to reach recommended threshold levels that indicate a good fitting model. Finally, the significant correlation between the ACS and NCS indicated that these scales measured much the same thing. Moreover, both scales correlated highly with the OCQ (Porter et al., 1974), and their relationships with other important antecedent and outcome variables were quite similar (e.g., Ko et al., 1997).

Results related to the second study focus were mixed. For example, although the reliability for the ACS dropped significantly when items were grouped, the internal

consistency reliabilities for the CCS and NCS increased significantly. Even more telling, the nomological relationships for the grouped questionnaires were much the same as those for the randomized questionnaires. Finally, although questionnaires with all positively worded items had internal consistency reliabilities similar to questionnaires that had both positively and negatively worded items, the negatively worded items created an artificial fourth factor when scale items were grouped together.

### Discussion

There are any number of reasons why the current study failed to support the generalizability of the 3-OC Model in South Korea. The most likely reasons include problems with the underlying theory behind the 3-OC Model and the implementation of the 3-OC scales. Moreover, these problems may be confounded (or masked) by cultural factors.

### Underlying Theory

The theory behind the 3-OC Model appears to be cogent and reasonable, especially in light of the complexity of the relationships between OC and important organizational outcome variables that have been reported in the literature. Thus, there is good theoretical support for the fact that OC is an important, multi-dimensional construct.

For example, there is a broad consensus that AC is a legitimate component of OC. Its theoretical underpinnings are strong, and the significant relationship between the ACS and the OCQ provides even more support for this OC component. Unfortunately, the ACS and NCS are highly correlated and this is problematic for supporting NC as a distinct, second component of OC. However, even the data presented here suggest that

OC is composed of two factors, AC and CC. That is, even though the relationship between AC and NC was high, their relationship with CC was only moderate.

After assessing the totality of the evidence presented here, the most likely explanation for the results reported above rests with the implementation of the 3-OC Model, and the fact that research results may have been influenced by cultural and other contextual (e.g., economic) factors.

### Implementation-Related Issues

There are several implementation-related issues that need to be discussed. The first deals with the 3-OC scale items themselves. The second deals with whether scale items should be grouped together or randomly ordered.

3-OC scale items. There appear to be any number of problems with the 3-OC scale items themselves. One obvious problem is that a many items are very poorly written. For example, some items have poor grammatical structures. Another problem is that a few items contain colloquialisms and argot that are a byproduct of the Western context in which they were created. For example, the terms “feel guilty” and “a part of the family” appear in two 3-OC items. Although these terms may be meaningful in English-speaking countries, they may not translate meaningfully into any number of other languages. These problems can only compromise the good translation of the 3-OC items into another language, and this would likely be further compromised the more language and culture interact.

For example, consider the NCS item “I would feel guilty if I left my organization now”. In English “guilty” connotes a feeling of shame and sadness associated with individual wrongdoing. Yet, when translated into Korean, guilty acquires a criminal

connotation and may convey an extreme sense of immorality. As a result, Korean respondents very likely found this item confusing.

Thus, the 3-OC items themselves very likely caused problems in the current study: bad English 3-OC items led to even worse Korean 3-OC items. Unfortunately, because the current study used translations of the 3-OC items developed by Ko et al. (in order to compare study results), there is no direct evidence about translation-related problems with the 3-OC items in the current study. However, just over 20 percent of the other items that were part of the current study required revision by translators/back-translators, and negatively worded ACS items posed special problems for Korean subjects that led to an artificial fourth factor when 3-OC items were grouped. This suggests that similar problems would have occurred had the current study developed its own translations of the 3-OC items, especially if original Meyer & Allen items were used.

The bottom line is that the 3-OC items that many researchers use today desperately need revision if their use is to be continued, especially in cross-cultural research. First of all, grammatically correct items that avoid colloquialisms need to be developed. Second, in spite of the research evidence that the inclusion of negatively worded items may reduce response biases, data from several studies suggest that negatively worded items should be avoided when researching Korean samples. It may be a good rule of thumb to avoid negatively worded items altogether because they potentially pose more of a problem than they are worth.

Doing these things should help create simple, more meaningful items that will be more easily translatable across languages and cultures. Most importantly, doing these

two things should dramatically improve the value-added of comparative research studies because the meaning of the items will more likely be consistent across translations.

**Item grouping.** The second implementation-related issue deals with how scale items are grouped. Although the current results suggested that grouping 3-OC items had no real impact on subject responses or scale properties, both Meyer & Allen (1990) and the survey research literature suggest otherwise. Until better 3-OC items are developed (e.g., based on the suggestions noted above), it would be more prudent for researchers to follow these dictates. Subsequent research using better developed 3-OC items may substantiate that grouping items does not affect subject responses or scale properties. If that were to be the case, then the admonition noted here to follow the dictates of existing research on the matter could be ignored. However, this remains to be seen.

Overall, researchers who argue that OC is a multi-dimensionality construct need to return to the drawing board in order to create a better implementation of the 3-OC Model. Only after this is done will researchers really be able to examine and assess the viability of the 3-OC Model itself.

#### **Cultural/Contextual Issues**

Cultural/contextual issues related to the implementation of OC models should also be examined. For example, it has been suggested that economic factors influence OC-related results. Moreover, it has been suggested that cultural differences between individualistic and collectivistic societies affect OC-related results. For example, it has been proposed that collectivistic cultures have higher levels of NC.

Although OC-related results may be affected, it is the level of commitment and not the relationships between commitment and important outcome variables that will

most likely be affected. That is, although it is reasonable to suggest that OC will be higher in collectivistic societies or that levels of OC will vary with economic conditions, this does not necessarily mean that the nature of the relationships between OC (or its various components) and important outcome variables (e.g., turnover or job satisfaction) will change. Thus, economic and/or cultural factors may modify one or more of these relationships but will not change their basic nature.

For example, the commitment of Korean workers surveyed in the current study likely decreased due to the large number of layoffs associated with the rapid deterioration of the Korean economy during the time of data collection (i.e., June 1998). As can be seen in the employment data presented in Table 16, the unemployment rate in Korea grew steadily prior to and during the summer months of data collection for the current study.

**Table 16**  
**Unemployment Rate and Inflation Rate**

(Unit: %, Mil. Persons)

	1997	Jan98	Feb	Mar	Apr	May	June	July	Aug	Sept
Unemployment Rate (%)	2.6	4.5	5.9	6.5	6.7	6.9	7.0	7.6	7.4	7.3
Number of Unemployed Persons	0.56	0.93	1.24	1.38	1.43	1.49	1.53	1.65	1.58	1.57
Consumer Price Index (%) <sup>*</sup>	4.5	8.3	9.5	9.0	8.8	8.2	7.5	7.3	6.9	6.9

\* percent change

Source: Weekly Korean Economic Trends (1998, 11.14)

Similarly, commitment among U.S. workers likely declined between 1980 and 1990 as a result the many hostile takeovers and reorganizations in the U.S. during the 1980's that resulted in the displacement of many workers. One outgrowth of this has

been that employee turnover in the U.S. is at an all-time high, which is consistent with the strong negative relationship reported between OC and turnover.

Thus, there is no persuasive body of research that yet suggests the nomological network in which OC exists differs across cultures in spite of the fact there are differences in the levels of OC across different cultures. If it were found that OC was a culturally embedded construct, different models of OC would need to be developed for different cultures. In the least, various OC components would be differentially related to different outcome variables in different ways across different cultures. This would present a nightmare for OC researchers.

One final cultural-related issue needs to be discussed. This deals with the impact of cultural differences on how subjects respond to questionnaires. For example, it has been suggested that in collectivistic cultures subjects are more likely to respond to questionnaire items even when they do not understand the items; they are also more likely to respond in a socially desirable manner. Under these circumstances subjects are especially prone to avoid extreme response options (called central tendency error). This error is also more likely to occur where subjects have higher anonymity concerns, as has been suggested in collectivistic cultures. Thus, subjects in collectivistic cultures may be much more prone to central tendency error overall. In fact, this phenomenon may likely explain the inexplicable results reported in several studies that the OCQ scores of employees were higher in collectivistic than in individualistic cultures.

Obviously comparative researchers should consider measuring social desirability, especially when their research is cross-cultural. In this way, correlational techniques could be used to remove the culturally loaded impact of social desirability on subject



responses, and a more accurate comparison of results across cultures could be obtained. Moreover, other techniques (e.g., focus groups) could be used to assess the impact of anonymity concerns on the accuracy of subject responses. There are any number of ways to better minimize anonymity-related concerns, including subtle changes in the way questionnaires are returned (e.g., only through the direct mail system). Moreover, focus groups may be able to suggest others that are peculiar to the culture being studied. Finally, it may be possible to control the differential impact of anonymity by measuring it directly. Correlational techniques could then be used to remove its effect on subject responses.

### **Suggestions for Future Research**

Results of this study suggest a number of ideas for further research. First and foremost, additional modification of the individual items that comprise the 3-OC scales appears warranted. Although it can be forcefully argued that Meyer and Allen (1991) provided a sound theoretical rationale for their model, their model can only be properly evaluated on the basis of its psychometric properties. As Schoenfeldt (1984) has noted, “the legitimacy of organizational research as a scientific endeavor is dependent upon the psychometric properties of the measuring instrument” (p. 78).

**Thoroughly analyze the OC scales.** As noted above, any modification of the 3-OC scales must start with an examination of the clarity and meaningfulness of the 3-OC scale items themselves. For example, it is readily apparent that CC and NC scale items are the most problematic in that their reliabilities are rather low for mature instruments. These rather low reliabilities evidence themselves when the CC and NC scales are used with Western (e.g., see Hackett et al., 1994 or Jaros, 1997) and non-Western samples

(e.g., see Ko et al., 1997). This suggests this is not solely a problem peculiar to non-Western samples.

Thus, the results reported above strongly suggest the need for more and better content accuracy analyses of the 3-OC scales. In essence, the current study suggested that those OC researchers interested in the 3-OC Model should first take a large step backwards and re-examine the 3-OC scales before they continue using Meyer & Allen's implementation of OC. Other researchers have noted that satisfactory content accuracy analysis is the necessary precursor for judging scale adequacy, and this should be done before psychometric evaluations of the 3-OC scales are continued (e.g., Anastasi, 1982; Nunnally, 1978; Schriesheim et al., 1993; Schwab, 1980). This should certainly be the case before cross-cultural research is done using the Meyer & Allen model because of the added problems inherent in language translations.

Unfortunately, an examination and analysis of the procedures used to assess the content accuracy of measurement instruments is beyond the scope of the current study. However, a sample questionnaire designed to assess the content accuracy of the 3-OC model is illustrated in Appendix E.

Maintain 3-OC scale consistency. Once the 3-OC scales are modified based on a thorough content analysis, comparative research can be undertaken. However, researchers are admonished to avoid continually tampering with the content of the 3-OC scales if they ever hope to better isolate and understand true differences across study results.

Some of the problems associated with the mixed results reported above may derive from the fact that researchers all too often have played "fast and loose" with the 3-

OC scales and items. For example, several studies have examined only a single component of the model (e.g., O'Neill & Mone, 1998 or Pond et al., 1997). This ignores the potential impact of the oblique relationships across the model's three components. Too many studies have excluded altogether an examination of NC because of its problematic nature (e.g., see Morrow, 1993; Shore & Wayne, 1993; Somers, 1999).

Another related problem is that even when researchers have examined the full 3-OC Model, the makeup of the 3-OC scales used has often varied. Although this has especially been the case with the completely revised NC scale (Meyer & Allen, 1993), other studies report using differing numbers of scale items for both the AC and CC scales (e.g., Kidwell et al., 1997; O'Neill & Mone, 1998), especially studies using non-Western samples (e.g., see Ko et al. 1997 or Vandenberghe, 1996).

Finally, as noted above, researchers have routinely altered 3-OC items, especially negatively worded items. This is especially the case in studies that involve translating the 3-OC scale items in order to examine the validity of the 3-OC Model in other countries and cultures (e.g., see Ellmers, Gidler & Huevel, 1998).

These inconsistencies across the 3-OC research make it much more difficult to compare study results. Unfortunately, we will never fully understand the nature of these mixed results until researchers can agree on a set of 3-OC items they are willing to use without alteration for some length of time.

Better understand OC-related cultural differences. After a thorough assessment of the content accuracy and psychometric properties of a consistent set of 3-OC scales, additional cross-cultural research would be necessary to better confirm the results of previously executed research.

For example, the general consensus among cross-cultural researchers is that Korea is a collectivistic society and the U. S. is an individualistic society. Based on the conventional wisdom that individualism is represented by selfishness and a focus on “I” and that collectivism is represented by group harmony, sacrifice, and a focus on ‘we’, there should be higher levels of OC in collectivistic cultures. Previous research, however, has not been able to consistently confirm this hypothesis (e.g., Luthans et al., 1984; Near, 1989). As noted above, this may be the result of response biases more prone to affect respondents in collectivistic cultures that artificially depress their OC scores. As noted earlier, some or most of this is very likely due to problems associated with the 3-OC items.

Thus, more and better research is needed to pinpoint the role of individualistic or collectivistic predispositions on OC in different cultures. An important consideration here is that although Asian countries are considered collectivistic societies (e.g., Hofstede, 1980), the effects on Asian countries of Western cultures have tended to change the outlooks or attitudes of individuals. For example, while South Korea’s older generation may have a collectivistic tendency and a Confucian ethic, the younger generation is more likely to have an individualistic tendency and little or no concern for the Confucian ethic.

Develop and validate OC instruments in different cultures. Finally, much cross-cultural research is undertaken using research instruments and tools developed and validated in Western countries. The cross-cultural research on OC is no exception, and may foster misrepresentations and misunderstandings as a result. Thus, an alternative approach to instrument development might be necessary to address this concern.

As noted by Hofstede and Bond (1984), questionnaire items are to some extent a function of the culture in which they were developed, and the exclusive use of Western instruments to study cross-cultural phenomena may actually lead to misrepresentations due to the cultural bias inherent in these instruments. Therefore, to more accurately understand the cross-cultural similarities and differences related to important phenomena, two-way research needs to be conducted. This would require that researchers begin to use Western-developed instruments to assess phenomena in non-Western countries/cultures as well as non-Western developed instruments to assess the same phenomena in Western countries/cultures.

For example, the development of an OC instrument from an Asian (perhaps, specifically South Korean) perspective might provide a better basis for measuring OC in Asian countries. The instrument could be designed to reflect one or more of the aspects of OC as identified by the 3-OC model. Furthermore, this instrument could be translated and used in Western cultures and the results compared.

An example of this approach is the work of Arzuwesti (1999). This researcher developed her own Turkish version of the 3-OC scales from the ground up. This was not done by simply translating the 3-OC scales into Turkish but by using content analyses to develop a completely new Turkish version of the 3-OC scales. Translating and then using this instrument to assess OC in the U.S. would be highly revealing.

#### Limitations of this Study

As with all empirical studies, this one had several limitations. These limitations should be noted both when drawing conclusions from the current study and when deciding what recommendations to make to help guide future research.

### 1. Cultural Context

Researchers (e.g., Hofstede, 1980) have classified South Korea as a collectivistic society and the U.S. as an individualistic society. As a result, this research has been conducted under the assumption that the U.S and South Korea have different cultures. However, the obtained findings would be worth very little as cross-cultural research if this assumption is incorrect. Therefore, specific context variables (e.g., Confucian work ethic vs. Protestant work ethic) that support an explanation of cultural differences between cultures would add richness to the interpretation of the current results.

### 2. Questionnaire Methodology

Although widely used in attitudinal research, many concerns about the use of questionnaire methodology have been raised. The most typical concern is common method variance. Common method variance refers to a measurement bias that occurs when different types of constructs are measured in the same way and at the same time. Therefore, responses to self-report measures may inherently maintain consistency between employee attributes, attitudes, and perceptions.

### 3. Sample Selection

Although this study utilized a large sample of South Korean employees from diverse organizations, most of the respondents were white-collar employees. Questionnaires were primarily distributed to employees working in offices (96.9%). Therefore, generalization of the current research results should be limited to South Korean white-collar employees.

## Conclusion

Results of this study suggest that Meyer and Allen's (1991) 3-OC scales are not yet appropriate for use in South Korea. The present evidence suggests that the scales do not measure three distinct components of OC, and the wording of some items is likely to be problematic for South Koreans.

The lackluster performance of the 3-OC Model in the current research supports the continued use of the OCQ for measuring OC in non-Western countries/cultures (Porter et al., 1974). This concurs with the conclusion of Ko et al. (1997) that "there is no reason to replace the OCQ with the ACS" (p. 970).

The OCQ is a mature instrument that has been widely used and evaluated. Its reliability and validity have been supported in empirical studies in many different countries and cultures (cf. Randall, 1993; Sommers, Bae, & Luthans, 1996; White et al., 1995). The current research showed that the 8-item OCQ had a high reliability and that its unidimensionality was supported by fit indices that reached conventionally acceptable levels.

In contrast, the few studies that have utilized the 3-OC scales in different countries/cultures have not found much evidence that would support their continued use. Results from this study concur with the conclusions of this limited body of research.

## REFERENCES

Adams, J.S. (1965). Inequity in social exchange. In L. Berkowitz, (ed.), Advance in Experimental Social Psychology, Vol. 2, Academic Press: New York, 267-299.

Alexander, S., & Ruderman, M. (1987). The role of procedural and distributive justice in organizational behavior. Social Justice Research, 1: 177-198.

Allen, N.J., & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. Journal of Occupational Psychology, 63: 1-18.

Allen, N.J., & Meyer, J.P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. Journal of Vocational Behavior, 99: 252-276.

Allen, N.J., & Smith, J. (1987). An investigation of "extra-role" behavior within organizations. Paper presented at the annual meeting of the Canadian Psychological Association, Vancouver, British Columbia.

Al-Meer, A.R.A. (1989). Organizational commitment: A comparison of Westerners, Asians, and Saudis. International Studies of Management & Organization, 19(2): 74-84.

Anastasi, A. (1982). Psychological testing, (5th ed.), New York: Macmillan.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103: 411-423.

Angle, H.L., & Lawson, M.B. (1993). Changes in affective and continuance commitment in times of relocation. Journal of Business Research, 26: 3-15.

Angle, H.L., & Perry, J.L. (1981). An empirical assessment of organizational commitment and organizational effectiveness. Administrative Science Quarterly, 26: 1-14.

Aron, A., & Aron, E. (1994). Statistics for psychology. Englewood Cliffs, NJ: Prentice-Hall.

Ary, D., Jacobs, L.C., & Razavieh, A. (1979). Introduction to research in education. New York: Holt, Rinehart and Winston.

Baehr, M.E. (1953). A simplified procedure for the measurement of employee attitudes. Journal of Applied Psychology, 37: 163-167.



Bagozzi, R.P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, 16: 74-94.

Bagozzi, R.P., Yi, Y., & Phillips, L.W. (1991). Assessing construct validity in organizational research. Administrative Science Quarterly, 36: 421-458.

Bateman, T.S., & Organ, D.W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship." Academy of Management Journal, 26: 587-595.

Becker, H.S. (1960). Notes on the concept of commitment. American Journal of Sociology, 66: 32-42.

Becker, T.E. (1992). Foci and bases of commitment: Are they distinctions worth making? Academy of Management Journal, 35: 232-244.

Begley, T.M., & Czajka, J.M. (1993). Panel analysis of the moderating effects of commitment on job satisfaction, intent to quit, and health following organizational change. Journal of Applied Psychology, 78(4): 552-556.

Ben-Bakr, K.A., Al-Shammari, I.S., Jefri, O.A., & Prasad, J.N. (1994). Organizational commitment, satisfaction, and turnover in Saudi organizations: A predictive study. The Journal of Socio-Economics, 23: 449-456.

Benkhoff, B. (1997). Ignoring commitment is costly: New approaches establish the missing link between commitment and performance. Human Relations, 50: 701-726.

Benson, J., & Hocevar, D. (1985). The impact of item phrasing on the validity of attitude scales for elementary school children. Journal of Educational Measurement, 22(3): 231-240.

Bentler, P.M. (1990). Comparative fit indexes in structural models. Psychological Bulletin, 107: 238-246.

Bentler, P.M. (1995). EQS structural equations program manual. Encino, CA: Multivariate Software.

Bentler, P.M., & Bonnett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88: 588-606.

Bies, R.J., Martin, C.L., & Brockner, J. (1993). Just laid off, but still a "good citizenship?" only if the process is fair. Employee Responsibilities and Rights Journal, 6(3): 227-238.

Bies, R.J., & Moag, J.S. (1986). Interactional justice: Communications criteria of fairness. In R. Lewicki, M. Bazerman, & B. Sheppard (Eds.), Research on negotiation in organizations, Vol. 1. Greenwich, CT: JAI Press.

Billings, R.S., & Wroten, S.P. (1978). Use of path analysis in industrial / organizational psychology: criticism and suggestions. Journal of Applied Psychology, 63: 677-688.

Blau, G. (1989). Testing the generalizability of a career commitment measures and its impact on employee turnover. Journal of Vocational Behavior, 35: 88-103.

Blau, G., Paul, A., St. John, N. (1993). On developing a general index of work commitment. Journal of Vocational Behavior, 42: 298-314.

Blau, P. (1964). Exchange and power in social life. New York: John Wiley & Sons.

Bollen, K.A. (1989). Structural equations with latent variables. New York: Wiley.

Bollen, K.A., & Long, J.S. (1992). Tests for structural equation models: Introduction. Sociological Methods & Research, 21(2): 123-131.

Boyacigiller, N.A., & Adler, N.J. (1991). The parochial dinosaur: Organizational science in a global context. Academy of Management Review, 16: 262-290.

Breckler, S.J. (1984). Empirical validation of affect, behavior, and cognition as distinct components of attitude. Journal of Personality and Social Psychology, 47(6): 1191-1205.

Brett, J.F., Cron, W.L., & Slocum, JR., J.W. (1995). Economic dependency on work: a moderator of the relationship between organizational commitment and performance. Academy of Management Journal, 38(1): 261-271.

Brief, A.P., Burke, M.J., George, J.M., Robinson, B., & Webster, J. (1988). Should negative affectivity remain an unmeasured variable in the study of job stress? Journal of Applied Psychology, 73: 193-198.

Brief, A.P., & Motowildo, S.J. (1986). Prosocial organizational behaviors. Academy of Management Review, 10: 710-725.

Brislin, R.W. (1980). Translation and content analysis of oral and written material. In H.C. Triandis & J.W. Berry (Eds.), Handbook of cross-cultural psychology. Boston: Allen and Bacon.

Brislin, R., Lonner, W., & Thorndike, R. (1973). Cross-cultural research methodology. New York: John Wiley & Sons.

Brockner, J., DeWitt, R.L., Grover, S., & Reed, T. (1990). When it is especially important to explain why: Factors affecting the relationship between managers' explanations of a layoff and survivors; reaction to the layoff. Journal of Experimental Social Psychology, 26: 389-407.

Budd, R.J. (1987). Responses bias and the theory of reasoned action. Social Cognition, 5: 95-107.

Bunchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. Administrative Science Quarterly, 19: 533-546.

Bycio, P., Hackett, R.D, & Allen, J.S. (1995). Further assessment of Bass's (1985) conceptualization of transactional and transformational leadership. Journal of Applied Psychology, 80: 468-478.

Campbell, D.T. (1960). Recommendations for APA test standards regarding constructs, traits, or discriminant validity. American Psychologist, 15: 546-553.

Campbell, D.T., & Fiske, D.W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56: 81-105.

Carsten, J.M., & Spector, P.E. (1987). Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the Muchinsky model. Journal of Applied Psychology, 72: 374-381.

Cha, J-H. (1994). Aspects of individualism and collectivism in Korea. In U. Kim, H. C. Triandis, C. Kagitcibasi, S-C. Choi, & G. Y. (Eds.). Individualism and Collectivism: Theory, method, and applications. Thousand Oaks, CA: Sage.

Chen, X-P., Hui, C., Seago, D.J. (1998). The role of organizational citizenship behavior in turnover: Conceptualization and preliminary tests of key hypotheses. Journal of Applied Psychology, 83(6): 922-931.

Chou, C-H., & Bentler, P.M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), Structural equation modeling: Concepts issues, and applications. Thousand Oaks, CA: Sage.

Church, A.T., & Burke, P.J. (1994). Exploratory and confirmatory tests of the big five and Tellegen's three and four-dimensional models. Journal of Personality and Social Psychology, 66: 93-114.

Churchill, G.A.,Jr. (1979). A paradigm for developing better measures of marketing constructs. Journal of Marketing Research, 16: 64-73.

Cohen, A. (1996). On the discriminant validity of the Meyer and Allen measure of organizational commitment: How does it fit with the work commitment construct? Educational and Psychological Measurement, 56(3): 494-503.

Cohen, A., & Lowenberg, G. (1990). A re-examination of the side-bet theory as applied to organizational commitment: A meta-analysis. Human Relations, 43: 1015-1050.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. (2nd ed.). Hillsdale, NJ: Erlbaum.

Cole, R. E., (1979). Work, mobility and participation. Berkeley, CA: University of California Press.

Coleman, D.F., Irving, P.G., Cooper, C.L. (1997). Work locus of control and the three-component model of organizational commitment. Paper presented at the annual meeting of Administrative Science Association of Canada, St. John's, Canada.

Conlon, D.E., & Fasolo, P.M. (1990). The influence of speed of third party intervention and outcome on negotiator and constituent fairness judgments. Academy of Management Journal, 33: 833-846.

Cook, J.D., Hepworth, S.J., Wall, T.D., & Warr, P.B. (1981). The experience of Work: A compedium and review of 29 measures and their use. San Diego, CA: Academic Press.

Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment, and personal need non-fulfillment. Journal of Occupational Psychology, 53: 39-52.

Cordery, J.L., & Sevastos, P.P. (1993). Responses to the original and revised job diagnostic survey: Is education a factor in response to negatively items? Journal of Applied Psychology, 78(1): 141-143.

Cronbach, L.J. (1951). Coefficient alpha and the internal consistency of tests. Psychometrika, 16: 297-334.

Cronbach, L.J., & Meehl, P.E. (1955). Construct validity in psychological tests. Psychological Bulletin, 52(4): 281-302.

Cropanzano, R., James, K., & Konovsky, M.A. (1993). Dispositional affectivity as a predictor of work attitude and job performance. Journal of Organizational Behavior, 14: 595-606.

Davy, J.A., Kinicki, A.J., & Scheck, C.L. (1991). Developing and testing a model of survivor responses to layoffs. Journal of Vocational Behavior, 38: 302-317.

Day, N.E., & Schoenrade, P.S. (1997). Staying in the closet versus coming out: relationships between communication about sexual orientation and work attitudes. Personnel Psychology, 50: 147-163.

DeCotiis, T.A., & Summers, T.P. (1987). A path analysis of a model of the antecedents and consequences of organizational commitment. Human Relations, 40: 445-470.

Doktor, R., Tung, R.L., & Von Glinow, M.A. (1991). Incorporating international dimensions in management theory building. Academy of Management Review, 16(2): 259-261.

Dunham, R., & Grube, J. (1990, August). Organizational commitment: The construct and its measurement. Paper presented at the National Academy of Management Meeting. San Francisco, CA.

Dunham, R.B., Grube, J.A., & Castaneda, M.B. (1994). Organizational commitment: The utility of an integrative definition. Journal of Applied Psychology, 79(3): 370-380.

Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. Journal of Organizational Psychology, 82: 812-820.

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. Journal of Applied Psychology, 75: 51-59.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. Journal of Applied Psychology, 71: 500-507.

Ellemers, N., Gilder, D. de, & Heuvel, H. Van den (1998). Career-oriented versus team-oriented commitment and behavior at work. Journal of Applied Psychology, 83: 717-730.

Farh, J-L., Earley, P.C., & Lin, S-C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. Administrative Science Quarterly, 42: 421-444.

Farkas, A.J., & Tetrick, L.E. (1989). A three-wave longitudinal analysis of the causal ordering of satisfaction and commitment on turnover decisions. Journal of Applied Psychology, 74: 855-868.

Farrell, D., & Rusbult, C.E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. Organizational Behavior and Human Performance, 27: 78-95.

Feldman, J.M., & Lynch, J.G., Jr. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. Journal of Applied Psychology, 73: 421-435.

Ferris, K.R., & Aranya, N. (1983). A comparison of two organizational commitment scales. Personnel Psychology, 36: 87-98.

Folger, R., & Konovsky, M.A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. Academic Management Journal, 32(1): 115-130.

Folger, R., Konovsky, M.A., & Cropanzano, R. (1992). A due process metaphor for performance appraisal. In B. M. Staw & L. L. Cummings (Eds.), Research in Organizational Behavior, 14: 129-177.

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with Unobservable variables and measurement error. Journal of Marketing Research.28: 39-50.

Frone, M.R., Russell, N., & Cooper, M.L. (1994). Relationship between job and family satisfaction: Causal or noncausal covariation? Journal of Management, 20: 565-579.

Gerbing, D.W., & Anderson, J.C. (1993). Monte Carlo evaluations of goodness-of-fit indices for structural equation models. In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models. Newbury Park, CA: Sage.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25: 161-179.

Graham, J. (1991). An essay on organizational citizenship behavior. Employee Responsibilities and Right Journal, 4: 249-270.

Greenberg, J. (1990). Organizational justice: yesterday, today, and tomorrow. Journal of Management, 16: 399-432.

Greenberg, J. (1992). The social side of fairness: Interpersonal and informational classes of organizational justice. In R. Cropanzano (Eds.), Justice in the workplace: approaching fairness in human resource management. Hillsdale, NJ: Lawrence Erlbaum Associates.

Griffeth, R.W., & Hom. P.W. (1995). The employee turnover process. Research in Personnel and Human Resource Management, 13: 245-293.

Gronlund, N.E. (1985). Measurement and evaluation in teaching. (5th ed.). New York: Macmillan.

Guzzo, R.A., Noonan, K.A., & Elron, E. (1994). Expatriate managers in psychological contract. Journal of Applied Psychology, 79: 617-626.

Hackett, R.D., Bycio, P., & Hausdorf, P.A. (1994). Further assessment of Meyer and Allen's (1991) three-component model of organizational commitment. Journal of Applied Psychology, 79(1): 15-23.

Hall, D.T., Schneider, B., & Nygren, H.T. (1970). Personal factors in organizational identification. Administrative Science Quarterly, 15: 176-190.

Harris, S.G., & Mossholder, K.W. (1996). The affective implications of perceived congruence with cultural dimensions during organizational transformation. Journal of Management, 22: 527-547.

Harrison, G.L. (1995). Satisfaction, tension and interpersonal relations: A cross-cultural comparison of managers in Singapore and Australia. Journal of Managerial Psychology, 10: 13-19.

Harrison, D.A., & McLaughlin, M.E. (1996). Structural properties and psychometric qualities of organizational self-reports: Field tests of connections predicted by cognitive theory. Journal of Management, 22: 313-338.

Harvey, R., Billings, R., & Nilman, K. (1985). Confirmatory factor analysis of the Job Diagnostic Survey: Good news and bad news. Journal of Applied Psychology, 70: 461-468.

Hinkin, J.R. (1995). A review of scale development practices in the study of organizations. Journal of Management, 21(5): 967-988.

Hofstede, G. (1980). Culture's consequence: International differences in work-related values. Beverly Hills, CA: Sage.

Holey, R.H., & Panter, A.T. (1995). Writing about structural equation models. In R. H. Hoyle (Ed.), Structural equation modeling. Thousand Oaks, CA: Sage.

Hom, P.W., & Griffeth, R.W. (1991). Structural equations modeling test of a turnover theory: Cross-sectional and longitudinal analysis. Journal of Applied Psychology, 76: 350-366.

Homans, G.C. (1961). Social behavior: Its elementary forms. New York: Harcourt, Brace, & World.

Howard, G.S. (1994). Why do people say nasty things about self-reports? Journal of Organizational Behavior, 15: 399-404.

Howell, D.C. (1992). Statistical methods for psychology. (3rd ed.). Belmont, CA: Duxbury Press.

Hrebiniak, L.G., & Alutto, J.A. (1972). Personal and role-related factors in the development of organizational commitment. Administrative Science Quarterly, 33: 61-81.

Hu, L-T., & Bentler, P.M. (1995). Evaluating model fit. In R.H. Hoyle (Ed.), Structural Equation Modeling: Concepts, issues, and applications. Thousand Oak, CA: Sage.

Hutchison, S. (1997). Perceived organizational support: further evidence of construct validity. Educational and Psychological Measurement, 57(6): 1025-1034.

Idaszak, J.R., & Drasgow, F. (1987). A revision of the job Diagnostic Survey: Elimination of a measurement artifact. Journal of Applied Psychology, 72: 69-74.

Irving, P.G., Coleman, D.F., & Cooper, C.L. (1997). Further assessment of a three-component model of occupational commitment: Generalizability and difference across occupations. Journal of Applied Psychology, 82: 444-452.

Jaros, S.J. (1997). An assessment of Meyer and Allen's (1991) Three-Component Model of organizational commitment and turnover intentions. Journal of Vocational Behavior, 51: 319-337.

Jaros, S., Jermier, J., Koehler, J., & Sincich, T. (1993). Effects of continuance, affective and moral commitment on the withdrawal process: An evaluation of eight structural equation models. Academy of Management Journal, 36: 951-995.

Joreskog, K.G., & Sorbom, D. (1993). LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language. Chicago: Scientific Software.

Judge, T.A., Thoresen, C.J., Pucik, V., & Welbourne, T.M. (1999). Managerial coping with organizational change: A dispositional perspective. Journal of Applied Psychology, 84: 107-122.

Kanter, R.M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. American Sociological Review, 33: 499-517.

Kaplan, D. (1990). Evaluating and modifying covariance structure models: A review and recommendation. Multivariate Behavioral Research, 25: 137-155.

Katz, D., & Stotland, E. (1959). A preliminary statement to a theory of attitude structure and change. In S. Koch (Eds.), Psychology: A study of a science, (Eds.), 3: 424-475. New York: McGraw-Hill.



- Kenny, D.A. (1979). Correlation and causality. New York: Wiley.
- Kidwell, J.R., Mossholder, K.W., & Bennett, N. (1997) Cohesiveness and organizational citizenship behavior: A multilevel analysis using work groups and individuals. Journal of Management, 23: 775-793.
- Kline, R.B. (1998). Principles and practice of structural equation modeling. New York: Guilford Press.
- Ko, J-W. (1996). Assessments of Meyer and Allen's three-component model of organizational commitment in South Korea. Unpublished doctoral dissertation, University of Iowa, Iowa City.
- Ko, J-W., Price, J.L. & Mueller, C.W. (1997). Assessment of Meyer and Allen's three-component model of organizational commitment in South Korea. Journal of Applied Psychology, 82(6): 961-973.
- Konovsky, M.A., & Cropanzano, R. (1991). Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. Journal of Applied Psychology, 76: 698-707.
- Leventhal, G.S. (1980). What should be done with equity theory? New approaches to the study of fairness in social relationships. In K. Gergen, M. Greenberg, & R. Willis (Eds.), Social exchange: Advances in theory and research. New York: Plenum Press.
- Lincoln, J.R. (1989). Employee work attitudes and management practice in the U.S. and Japan: Evidence from a large comparative survey. California Management Review, 89-106.
- Lincoln, J.R., & Kalleberg, A.L. (1985). Work organization and workforce commitment: A study of plants and employees in the U.S. and Japan. American Sociological Review, 50: 738-760.
- Lincoln, J.R., & Kalleberg, A.L. (1990). Culture, control, and commitment: A study of work organization and work attitudes in the United States and Japan New York: Cambridge University Press.
- Lind, E.A., & Tyler T.R. (1988). The social psychology of procedural justice. New York: Plenum.
- Loehlin, J.C. (1987). Latent variable models. Hillsdale, NJ: Erlbaum.
- Luthans, F., McCaul, H.S., & Dodd, N.G. (1985). Organizational commitment: A comparison of American, Japanese, and Korean employees. Academy of Management Journal, 28: 213-219.

Lynn, D.F. (1992). Incorporating the procedural/distributive dichotomy into the measurement of pay satisfaction: A study of recently graduated engineers and full-time faculty members of Ontario universities. Dissertation Abstracts International, 54: 4371A.

Magazine, S.L., Williams, L.J., & Williams, M.L. (1996). A confirmatory factor analysis examination of reverse coding effects in Meyer and Allen's affective and continuance commitment scales. Educational and Psychological Measurement, 56(2): 241-250.

Marsh, H.W., Balla, J.R., & McDonald, R.P. (1988). Goodness of fit indices in confirmatory factor analysis: The effects of sample size. Psychological Bulletin, 103: 391-410.

Marsh, R.M., & Mannari, H. (1977). Organizational commitment and turnover: A prediction study. Administrative Science Quarterly, 22: 57-75.

Mathieu, J.E., & Zajac, D.M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. Psychological Bulletin, 108: 171-194.

Mayer, R.C., & Schoorman, F.D. (1992). Predicting participation and production outcomes through a two-dimensional model of organizational commitment. Academy of Management Journal, 35: 671-684.

Mayer, R.C., & Schoorman, F.D. (1998). Differentiating antecedents of organizational commitment: a test of March and Simon's model. Journal of Organizational Behavior, 19: 15-28.

McCaul, H.S., Hinsz, V.B., McCaul, K.D. (1995). Assessing organizational commitment: An employee's global attitude toward the organization. Journal of Applied Behavioral Science, 32(1): 80-90.

McFarlin, D.B., & Sweeney, P.D. (1994). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. Academy of Management Journal, 35: 626-637.

McGee, G.W., & Ford, R.C. (1987). Two (or more?) dimensions of organizational commitment: Reexamination of the affective and continuance commitment scales. Journal of Applied Psychology, 72: 638-642.

Medsker, G.J., Williams, L.J., & Holahan, P.J. (1994). A review of current practices for evaluating causal models in organizational behavior and human resource management research. Journal of Management, 20(2): 439-464.

Mehrens, W., & Lehmann, I. (1983). Measurement and evaluation in education and psychology. (3rd ed.), New York: Holt, Rinehart & Winston.

Meyer, J.P. (1997). Organizational commitment. In C. L. Cooper & I. T. Robertson (Eds.) International Review of Industrial and Organizational Psychology, Vol. 12. New York: Wiley.

Meyer, J.P., & Allen, N.J. (1984). Testing the "side-bet theory" of organizational commitment: Some methodological considerations. Journal of Applied Psychology, 69: 372-378.

Meyer, J.P., & Allen, N.J. (1991). A three-component conceptualization of organizational commitment. Human Resource Management Review, 1: 61-89.

Meyer, J.P., & Allen, N.J. (1997). Commitment in the workplace: Theory, research, and application. Thousand Oaks, CA: Sage Publication.

Meyer, J.P., Allen, N.J., & Gellatly, I.R. (1990). Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. Journal of Applied Psychology, 75: 710-720.

Meyer, J.P., Allen, N.J., & Smith, C.A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. Journal of Applied Psychology, 78: 538-551.

Meyer, J.P., Bobocel, D.R., Allen, N.J. (1991). Development of organizational commitment during the first year of employment: A longitudinal study of pre- and post-entry influences. Journal of Management, 17: 717-733.

Meyer, J.P., Irving, P.G., & Allen, N.J. (1998). Examination of the combined effects of work values and early work experiences on organizational commitment. Journal of Organizational Behavior, 19: 29-52.

Meyer, J.P., Paunonen, S.V., Gellatly, I.R., Goffin, R.D., & Jackson, D.N. (1989). Organizational commitment and job performance: it's the nature of the commitment that counts. Journal of Applied Psychology, 74(1): 152-156.

Michael, C.E., & Spector, P.E. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. Journal of Applied Psychology, 67: 53-59.

Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behavior: Do fairness perceptions influence employee citizenship? Journal of Applied Psychology, 76: 845-855.

Moorman, R.H., Niehoff, B.P., & Organ, D.W. (1993). Treating employees fairly and organizational citizenship behavior: Sorting the effects of job satisfaction, organizational commitment, and procedural justice. Employee Responsibilities and Rights Journal, 6: 209-225.

Morrison, E.W. (1994). Role definitions and organizational citizenship behavior: The importance of the employee's perspective. Academy of Management Journal, 37: 1543-1567.

Morrow, P.C. (1983). Concept redundancy in organizational research: The case of work commitment. Academy of Management Review, 8: 486-500.

Morrow, P.C. (1993). The theory and measurement of work commitment. Greenwich, CT: JAI Press.

Mowday, R.T., Porter, L.W., & Steers, R. (1982). Organizational linkages: The psychology of commitment, absenteeism, and turnover. San Diego, CA: Academic Press.

Mowday, R.T., Steers, R., & Porter, L.W. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14: 224-247.

Mueller, R.O. (1996). Basic principles of structural equation modeling: A introduction to LISREL and EQS. NY: Springer.

Mueller, C.W., Wallace, J.E., & Price, J.W. (1992). Employee commitment: Resolving some issues. Work and Occupations, 19(3): 211-236.

Mulaik, S.A., James, L.R., Van Alstine, J., Bennet, N., Lind, S., & Stillwell, C.D. (1989). An evaluation of good-ness-of-fit indices for structural equation models. Psychological Bulletin, 105: 430-445.

Munene, J.C. (1995). 'Not-on-seat': An investigation of some correlates of organizational citizenship behavior in Nigeria. Applied Psychology: An International Review, 44(2): 111-122.

Near, J.P. (1989). Organizational commitment among Japanese and U.S. workers. Organization Studies, 10(3): 281-300.

Niehoff, B.P. & Moorman, R.H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. Academy of Management Journal, 36(3): 527-556.

Nunnally, J. (1967,1978). Psychometric theory. New York: McGraw-Hill.

Nunnally, J.C., & Bernstein, I.H. (1994). Psychometric theory (3rd ed.). New York: McGraw-Hill.

Nye, L.G., & Witt, L.A. (1993). Dimensionality and construct validity of the perceptions of organizational politics scale (POPS). Educational and Psychological Measurement, 53: 821-829.

Oh, K-H. (1995). The impact of job satisfaction and organizational commitment on withdrawal: A cross-cultural approach. Unpublished doctoral dissertation, University of Illinois, Chicago.

Oliver, N. (1990). Rewards, investments, alternatives and organizational commitment: Empirical evidence and theoretical development. Journal of Occupational Psychology, 63: 19-31.

O'Neill, B.S., & Mone, M.A. (1998). Investigating equity sensitivity as a moderator of relations between self-efficacy and workplace attitudes. Journal of Applied Psychology, 83: 805-816.

O'Reilly, C.A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. Journal of Applied Psychology, 71: 492-499.

Organ, D.W. (1988). Organizational citizenship behavior: the "good soldier" syndrome, MA: Lexington Books.

Organ, D.W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship. Journal of Applied Psychology, 74: 157-164.

Organ, D.W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. Personnel Psychology, 48: 775-802.

Pearson, C.A.L., & Chong, J. (1997). Contributions of job content and social information on organizational commitment and job satisfaction: An exploration in a Malaysian nursing context. Journal of Occupational and Organizational Psychology, 70: 357-374.

Pedhazur, E.J., & Schmelkin, L.P. (1991). Measurement, design, and analysis: An integrated approach. Hillsdale, NJ: Lawrence Erlbaum.

Pilotte, W.J., & Gable, R.K. (1990). The impact of positive and negative item stems on the validity of a computer anxiety scale. Educational and Psychological Measurement, 50: 603- 610.

Podsakoff, P.M., Niehoff, B.P., Mackenzie, S.B., & Williams, M.L. (1993). Do substitutes for leadership really substitute for leadership? An empirical examination of Kerr and Jermier's situational leadership model. Organizational Behavior and Human Decision Process, 54: 1-44.

Pond, S.B., Nacoste, R.W., Mohr, M.F., Rodriguez, C.M. (1997). The measurement of organizational citizenship behavior: Are we assuming too much? Journal of Applied Social Psychology, 27: 1527-1544.

- Porter, L.W., Steers, R.M., Mowday, R.T., & Boulian, P.V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 59: 603-609.
- Puffer, S.M. (1987). Prosocial behavior, noncompliant behavior, and work performance among commission salespeople. Journal of Applied Psychology, 72: 615-621.
- Randall, D.M. (1993). Cross-cultural research on organizational commitment: A review and application of Hofstede's value survey module. Journal of Business Research, 26: 91-110.
- Randall, D.M., Fedor, D.B., & Longenecker, C.O. (1990). The behavioral expression of organizational commitment. Journal of Vocational Behavior, 36: 210-224.
- Redding, S.G., Norman, A., Schlander, A. (1994). The nature of individual attachment to the organization: A review of East Asian variations. In H. C. Triandis, M.D. Dunnette, L.M. Hough (Eds.), Handbook of Industrial and Organizational Psychology. Palo Alto, CA: Consulting Psychologists Press.
- Reichers, A.E. (1985). A review and reconceptualization of organizational commitment. Academy of Management Review, 10: 465-476.
- Riordan, C.M., & Vandenberg, R.J. (1994). A central question in cross-cultural research: Do employees of different cultures interpret work-related measures in equivalent manner? Journal of Management, 20(3): 643-671.
- Ritzer, G., & Trice, H.M. (1969). An empirical study of Howard Becker's side-bet theory. Social Forces, 47: 475-479.
- Roberson, M.T., & Sundstrom, E. (1990). Questionnaire design, return rate, and response favorableness in employee attitude questionnaire. Journal of Applied Psychology, 75(3): 354-357.
- Salancik, G.R. (1977). Commitment and the control of organizational behavioral belief. In B.M. Staw & G.R. Salancik (Eds.), New directions in organizational behavior. Chicago: St. Clair Press.
- Schafer, W.D. (1990). Power analysis in interpreting statistical nonsignificance. Measurement and Evaluation in Counseling and Development, 23: 146-147.
- Schmitt, N. (1994). Method bias: the importance of theory and measurement. Journal of Organizational Behavior, 15: 393-398.

Schmitt, N. & Stults, D.M. (1985). Factors defined by negatively keyed items: the result of careless respondents? Applied Psychological Measurement, 9(4): 367-373.

Scholl, R.W. (1981). Differentiating organizational commitment from expectancy as a motivating force. Academy of Management Review, 6(4): 589-599.

Schoenfeldt, L.F. (1984). Psychometric properties of organizational research instrument. In T.S. Bateman, & G.R. Ferris (Eds.), Method and analysis in organizational research. Reston, VA: Reston Publishing.

Schriesheim, C.A. (1981). The effect of grouping or randomizing items on leniency response bias. Educational and Psychological Measurement, 41: 401-411.

Schriesheim, C.A., & DeNisi, A.S. (1980). Item presentation as an influence on questionnaire validity: A field experiment. Educational and Psychological Measurement, 40: 175-182.

Schriesheim, C.A., & Eisenbach, R.J. (1995). An exploratory and confirmatory factor-analytic investigation of item wording effects on the obtained factor structures of survey questionnaire measures. Journal of Management, 21: 1177-1193.

Schriesheim, C.A., Eisenbach, R.J., Hill, K.D. (1991). The effect of negation and polar opposite item reversals on questionnaire reliability and validity: An experimental investigation. Educational and Psychological Measurement, 51: 67-78.

Schriesheim, C.A., & Hill, K. (1981). Controlling acquiescence response bias by item reversal: the effect on questionnaire validity. Educational and Psychological Measurement, 41: 1101-1114.

Schriesheim, C.A., & Kerr, S. (1974). Psychometric properties of the Ohio State leadership scales. Psychological Bulletin, 81: 756-765.

Schriesheim, C.A., Kopelman, R.E., & Solomon, E. (1989). The effect of grouped versus randomized questionnaire format on scale reliability and validity: A three-study investigation. Educational and Psychological Measurement, 49: 487-508.

Schriesheim, C.A., Powers, K.J., Scandura, T.A., Gardiner, C.C., & Lankau, M.J. (1993). Improving construct measurement in management research: Comments and a quantitative approach for assessing the theoretical content adequacy of paper-and-pencil survey-type instruments. Journal of Management, 19(2): 385-417.

Schriesheim, C.A., Solomon, E., & Kopelman, R.E. (1989). Grouped versus randomized format: An investigation of scale convergent and discriminant validity using LISREL confirmatory factor analysis. Applied Psychological Measurement, 13: 19-32.

Schuman, H., & Presser, S. (1996). Questions & answers in attitude survey: Experiments on question form, wording, and context. Thousand Oaks, CA: Sage Publications.

Schwab, D.P. (1980). Construct validity in organizational behavior. In B.M. Staw & L. L. Cummings (Eds.), Research in organizational behavior, 2: 3-43. Greenwich, CT: JAI Press.

Scott, W.A. (1968). Attitude measurement. In G. Lindzey (Ed.), The Handbook of Social Psychology, Vol. 2, (2nd ed.), Readings, MA: Addison-Wesley.

Segall, M.H., Lonner, W.J., & Berry, J.W. (1998). Cross-cultural psychology as a scholarly discipline on the following of cultures in behavioral research. American Psychologist, 53(10): 1101-1110.

Settoon, R.P., Bennett, N., & Liden, R.C. (1996). Social exchange in organizations: perceived organizational support, leader-member exchange, and employee reciprocity. Journal of Applied Psychology, 81(3): 219-227.

Sheldon, M.E. (1971). Investments and involvements as mechanisms producing commitment to the organization. Administrative Science Quarterly, 16: 142-150.

Shore, L.M., & Tetrick, L.E. (1991). A construct validity study of the survey of perceived organizational support. Journal of Applied Psychology, 76(5): 637-643.

Shore, L.M., & Wayne, S.J. (1993). Commitment and employee behaviors: Comparison of affective commitment and continuance commitment with perceived organizational support. Journal of Applied Psychology, 78(5): 774-780.

Sinclair, R.R., Hannigan, M.A., & Tetrick, L.E. (1995). Benefit coverage and employee attitudes: A social exchange perspective. In L.E. Tetrick & J. Barling (Eds.), Changing employment relations: Behavioral and social perspectives, Washington, DC: American Psychological Association.

Smith, C.A., & Meyer, J.P. (1996). HRM practices and organizational commitment: Test of a mediation model. Paper presented at the annual meeting of Society for Industrial and Organizational Psychology, San Diego, CA.

Smith, C.A., Organ, D.W., & Near, J.P. (1983). Organizational citizenship behavior: Its nature and antecedents. Journal of Applied Psychology, 68: 653-663.

Solomon, E., & Kopelman, R.E. (1984). Questionnaire formats and scale reliability: An examination of three models of item presentation. Psychological Reports, 54: 447-452.

Somers, M.J. (1993). A test of the relationship between affective and continuance commitment using non-recursive models. Journal of Occupational and Organizational Psychology, 66: 185-192.



Somers, M.J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. Journal of Organizational Behavior, 16: 49-58.

Somers, M.J. (1999). Application of two neural network paradigms to the study of voluntary employee turnover. Journal of Applied Psychology, 84: 177-185.

Sommers, S.M., Bae, S.H., Luthans, F. (1996). Organizational commitment across cultures: the impact of antecedents on Korean employees. Human Relations, 49(7): 977-993.

Spencer, B. (1995). Correlations, sample size, and practical significance: A comparison of selected psychological and medical investigations. The Journal of Psychology, 129(4): 469-475.

Sperber, A.D., Devellis, R.F., & Boehlecke, B. (1994). Cross-cultural translation: Methodology and validation. Journal of Cross-Cultural Psychology, 25: 501-524.

Stebbins, R.A. (1970). On misunderstanding the concept of commitment: A theoretical clarification. Social Forces, 48: 526-529.

Stevens, J. (1992). Applied multivariate statistics for the social sciences. (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Stone, E.F. (1978). Research methods in organizational behavior. Glenview, IL: Scott, Foresman.

Stone, E. F., Stone, D.L., & Gueutal, H.G. (1990). Influence of cognitive ability on responses to questionnaire measures: Measurement precision and missing response problems. Journal of Applied Psychology, 75: 418-427.

Stone-Romero, E.F., Weaver, A.E., & Glenar, J.L. (1995). Trends in research design and data analytic strategies in organizational research. Journal of Management, 21: 141-157.

Sweeney, P.D., & McFarlin, D.B. (1993). Workers' evaluations of the 'ends' and the 'means': An examination of four models of distributive and procedural justice. Organizational Behavior and Human Decision Processes, 55: 23-40.

Tanaka, J.C. (1984). Some results on the estimation of covariance structure models. Dissertation Abstracts International, 45: 924B.

Tanaka, J.C. (1993). Multifaceted conceptions of fit in structural models. In K.A. Bollen & J.S. Long (Eds.), Testing structural equation models. Newbury Park, CA: Sage.

Tansky, J.W. (1993). Justice and organizational citizenship behavior: what is the relationship? Employee Responsibilities and Rights Journal, 6: 195-207.

Taylor, J.C., & Bowers, D.G. (1972). Survey of organizations: A machine-scored, standardized questionnaire instrument. Ann Arbor: Institute for Social Research, University of Michigan.

Tetrick, L., & Farkas, A.J. (1988). A longitudinal examination of the dimensionality and stability of the organizational commitment questionnaire (OCQ). Educational and Psychological Measurement, 48: 723-735.

Tett, R.P., & Meyer, J.P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. Personnel Psychology, 46: 259-293.

Thacker, J.W., Fields, M.W., & Tetrick, L.E. (1989). The factor structure of union commitment: An application of confirmatory factor analysis. Journal of Applied Psychology, 74(2): 228-232.

Thibaut, J.W., & Walker, L. (1975). Procedural justice: A psychological analysis. Hillsdale, NJ: Erlbaum.

Thompson, B., & Daniel, L.G. (1996). Factor analytic evidence for the construct validity of scores: A historical overview and some guidelines. Educational and Psychological Measurement, 56(2): 197-208.

Tourangeau, R., & Rasinski, K.A. (1988). Cognitive processes underlying context effects in attitude measurement. Psychological Bulletin, 103: 299-314.

Vandenberg, R.J., & Self, R.M. (1993). Assessing newcomers' changing commitments to the organization during the first 6 months of work. Journal of Applied Psychology, 78: 557-568.

Vandenberghe, C. (1996). Assessing organizational commitment in a Belgian context: evidence for the three-dimensional model. Applied Psychology: An International Review, 45(4): 371-386.

Van Dyne, L., Graham, J.W. & Dienesch, R.M. (1994). Organizational citizenship behavior: construct redefinition, measurement, and validation. American Management Journal, 37: 765-802.

Wallace, J.E. (1997). Becker's side-bet theory of commitment revisited: Is it time for a moratorium or a resurrection? Human Relations, 50(6): 727-749.

Wang, L.L., Fan, X., & Wilson, V.L. (1996). Effects of nonnormal data on parameter estimates for a model with latent and manifest variables: An empirical study. Structural Equation Modeling, 3: 228-247.

Wayne, S.J., Shore, L.M., Liden, R.C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. Academy of Management Journal, 40: 82-111.

Weekly Korean Economic Trends. 1998. Economic trends since the IMF bailout. November 14.

West, S.G., Finch, J.F., & Curran, P.J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R.H. Holey (Eds.) Structural Equation Modeling: Concepts, issues, and applications, Thousand Oaks, CA: Sage.

White, M.M., Parks, J.M., Gallagher, D.G., Tetrault, L.A., & Wakabayashi, M. (1995). Validity evidence for the organizational commitment questionnaire in the Japanese corporate culture. Educational and Psychological Measurement, 55(2): 278-290.

Whitener, E.M., & Walz, P.M. (1993). Exchange theory determinants of affective and continuance commitment and turnover. Journal of Vocational Behavior, 42: 265-281.

Widaman, K.F. (1985). Hierarchically nested covariance structure models for multitrait-multimethod data. Applied Psychological Measurement, 9: 1-26.

Wiener, Y. (1982). Commitment in organizations: A normative view. Academy of Management Review, 7: 418-428.

Wiener, Y., & Gechman, A.S. (1977). Commitment: A behavioral approach to job involvement. Journal of Vocational Behavior, 10: 47-52.

Wiener, Y., & Vardi, Y. (1980). Relationships between job, organizations and work outcomes: an integrative approach. Organizational Behavior and Human Performance, 26: 81-96.

Williams, L.J. (1995). Covariance structure modeling in organizational research: Problems with the method versus application of the method. Journal of Organizational Behavior, 16: 225-234.

Williams, L.J., & Anderson, S.E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behavior. Journal of Management, 17: 601-617.

Williams, L.J., Cote, J.A., & Buckley, M.R. (1989). Lack of method variance in self-report affect and perceptions at work: Reality or artifact? Journal of Applied Psychology, 74: 462-468.

Williams, L.J., & Hazer, J.T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variables structural equation methods. Journal of Applied Psychology, 71: 219-231.

Zeffane, R. (1994). Patterns of organizational commitment and perceived management style: A comparison of public and private sector employees. Human Relations, 47: 977-1010.

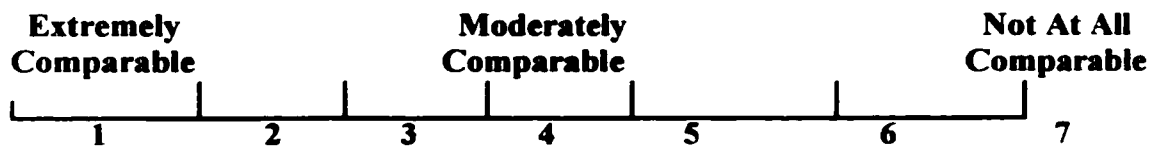
**APPENDIX A**  
**TRANSLATION, BACK-TRANSLATION, & EQUIVALENCY TEST RESULTS**

Dear Participants:

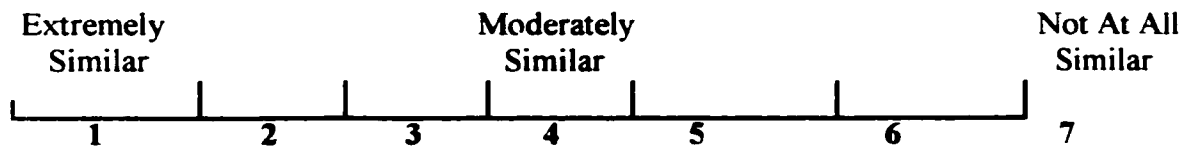
This is a formal comparison of the original version of the questionnaire with the back-translated version (the two English versions). The purpose of this comparison is to evaluate the success of the translating process. To evaluate the equivalent language, this survey uses two measures: comparability of language and similarity of interpretability. **Comparability of language** refers to the formal similarity of words, phrase, and sentences. **Similarity of interpretability** refers to the degree to which the two versions would engender the same attitude response even if the wording were not the same. After you read both versions, please indicate the degree of your judgment in terms of both comparability of language and similarity of interpretability.

Thank you for your participation in this research.

**Comparability of language:**



**Similarity of Interpretation:**



Language (A)	Language (B)	Comparability of language	Similarity of interpretation
(1) Even if I did the best job possible, the organization would fail to notice.	(1) The organization would not notice even though I performed the best work possible.		
(2) The organization cares about my general satisfaction at work.	(2) The organization cares about my general satisfaction at work.		
(3) The organization shows very little concern for me.	(3) The organization does not show any concern for me.		
(4) The organization cares about my opinions.	(4) The organization cares about my opinions		
(5) The organization takes pride in my accomplishments at work	(5) The organization takes pride in my work achievements.		
(6) The organization disregards my best interests when it makes decisions that affect me.	(6)This company disregards my greatest interests when it makes decisions that affect me.		
(7) Help is available from the organization when I have a	(7) I can be helped from company if I have a problem.		

problem.			
(8) The organization really cares about my well-being.	(8) This company is very interested in my welfare.		
(9) Job decisions are made by the general manager in an unbiased manner.	(9) Job-related decisions by the general manager are made in an unbiased manner.		
(10) All job decisions are applied consistently across all affected employees.	(10) All job-related decisions are applied to all employees who are affected by them.		
(11) When decisions are made about my job, the general manager treats me with kindness and consideration.	(11) The general manager treats me with kindness and consideration when he/she makes decisions related to my job.		
(12) When decisions are made about my job, the general manager shows concern for my rights as an employee.	(12) The general manager shows his/her care for my rights as an employee, when he/she makes decisions related to my job.		
(13) To make job decisions, my general manager collects accurate and complete information.	(13) To make job-related decisions, my general manager collects needed information that is accurate and complete.		
(14) Concerning decision made about my job, the general manager discusses the implications of the decisions with me.	(14) The general manager discusses the implication of decisions with me, when making decisions concerning my job.		
(15) When decisions are made about my job, the general manager treats me with respect and dignity.	(15) The general manager treats me with respect when he/she makes decisions related my job.		
(16) My general manager clarifies decisions and provides additional information when requested by employees.	(16) My general manager clarifies his/her decisions to the job and provides further information when employees request.		
(17) The general manager offers adequate justification for decisions made about my job	(17) The general manager offers adequate justification of decisions made that are related to my job.		
(18) When making decisions about my job, the general manager offers explanations that make sense to me.	(18) The general manager explains his/her decisions that make sense to me, when he/she makes decision about my job.		
(19) My general manager makes sure that all employee concerns are heard before job decisions are made.	(19) My general manager makes sure that all employee interests are taken into account, before he/she makes decisions about job.		
(20) My general manager explains very clearly any decisions made about my job.	(20) The general manager explains his/her decisions about my job very clearly.		
(21) Employees are allowed to challenge or appeal job decisions made by the general manager.	(21) Employees allowed to question or appeal job-related decisions made by the general manager.		
(22) When decisions are made about my job, the general manager is sensitive to my personal needs.	(22) When making decision about my job, the general manager is sensitive to my personal desires.		
(23) I feel that I have worked a lot of unpaid overtime here.	(23) I feel that I have worked for many hours in this organization without getting paid overtime		

(24) I have ignored other attractive job opportunities to stay here.	(24) I have given up many other good job offers to stay with this organization.		
(25) I have a lot of close friends at this company.	(25) I have many close friends at this organization.		
(26) All in all I have put a lot into working here.	(26) I have devoted all of my time and energy to this organization.		
(27) I would have to give up a lot if I left this company.	(27) If I have left this organization, I would have given up many things.		
(28) There are very few other organizations I would rather work for.	(28) Beside this organization, I really don't have any other organizations to work for.		
(29) Working here is just like any other job to me.	(29) It is really similar to me whether I work at this organization or somewhere else.		
(30) Overall, I've made investments in this place which are important to me.	(30) Overall, I have devoted myself into this organization, which is important to me.		
(31) Overall, it would be difficult to find an alternative job that is better than this one.	(31) Overall, it will be very hard to find a better job than this job.		
(32) I help other employees with their work when they have been absent.	(32) I help other employees' work when they are absent.		
(33) I do not spend a great deal of time in idle conversation.	(33) I do not waste time with unnecessary conversation during my work hours.		
(34) I exhibit punctuality in arriving at work on time in the morning and after lunch and breaks.	(34) I am at the work on time immediately after arriving right after lunch and after breaks.		
(35) I willingly attend functions not required by the organization, but helps in its overall image.	(35) Even when the organization does not request of me if it is for the image of the organization, I willingly do whatever is necessary.		
(36) I take undeserved work breaks.	(36) I take unnecessary breaks during my work hours.		
(37) I do not take extra breaks.	(37) I do not take unassigned break times.		
(38) I take the initiative to orient new employees to the department even though it is not part of my job description.	(38) It is not my assigned job but when a new employee come in our department, I help him/her out with basics.		
(39) I make innovative suggestions to improve the overall quality of the department.	(39) I try to come up with creative suggestions to improve the overall quality of my department.		
(40) I exhibit attendance at work beyond the norm, for example, take less days off than most individuals or less than allowed.	(40) I attend my office than what is required, for example, I take less vacation days than other colleagues or what is allowed by the organization.		
(41) I assist my supervisor in his/her duties.	(41) I help my boss or supervisor's work.		
(42) I help others when their work load increases.	(42) I help out my colleagues when I think their work load is heavy.		



(43) I do not take unnecessary time off work.	(43) I do not take any unnecessary breaks.		
(44) I coast toward the end of the day.	(44) When my required work is done, I don't ask for more work and wait for the end of the day.		
(45) I spend a great deal of time in personal telephone conversation.	(45) I spend a lot of time on the phone with personal calls during my work hours.		
(46) I give advance notice if unable to come to work.	(46) If I can't come to work for some reason, I call as soon as possible to let them know of my absence.		
(47) I volunteer to do things not formally required by the job.	(47) Even when work is not officially assigned to me, I voluntarily do them.		

**Thank you for your cooperation.**

## **NOTE TO USERS**

**Page(s) not included in the original manuscript are unavailable from the author or university. The manuscript was microfilmed as received.**

**118 - 122**

**This reproduction is the best copy available.**

**UMI**

**The Work Attitude Survey**

**Dear Participants:**

**This research is being conducted to examine the organizational commitment model in South Korea. It is part of my doctoral dissertation in Business Administration at Kent State University, Ohio, USA. Your participation is instrumental to the completion of my dissertation research. So let me thank you in advance for your involvement.**

**The questionnaire enclosed deals with your feelings or attitudes toward your organization and job. This research is an attempt to provide accurate measures to assess the employee's organizational commitment. Please read each question carefully and respond according to the directions provided.**

**This is not a test, and there are no right or wrong answers. However, after reading each question carefully, it is important that you give an honest and frank answer. Your responses will be kept entirely **anonymous and confidential**. Once your responses are recorded, your survey will be discarded. Your responses will eventually be analyzed by computer, but the results will be reported in such a manner that there will be no way to associate your name with specific responses.**

**Thank you again for your participation in this research. If you have any questions about this research or survey, please feel free to contact us at the address and phone number provided below.**

**Researchers**

**Jinchul Jung: Dept. of Administrative Science. College of Business Administration.  
Kent State University, OH. 44242. (330) 929-3892  
E-Mail: Jjung2@aol.com.**

**Dr. Rober Faley: Dept. of Administrative Science. College of Business Administration.  
Kent State University, OH., 44242. (330) 672- 2750 (346).  
E-Mail: Rfaley@bsa3.kent.edu**

**Dr. Cathy DuBois: Dept. of Administrative Science. College of Business Administration.  
Kent State University, OH., 44242. (330) 672-2750 (392).  
E-Mail: Cdubois@bsa3.kent.edu**

**Section 1:**

Listed below are a series of statements that represent possible feelings individuals might have about the **COMPANY** or organization for which they work. For each statement, please indicate (✓) the degree of your agreement with each statement:

	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1-----	2-----	3-----	4-----	5-----
2. I talk up this organization to my friends as a great organization to work for.	1-----	2-----	3-----	4-----	5-----
3. I find that my values and the organization's values are very similar.	1-----	2-----	3-----	4-----	5-----
4. I am proud to tell others that I am part of this organization.	1-----	2-----	3-----	4-----	5-----
5. This organization really inspires the very best in me in the way of job performance.	1-----	2-----	3-----	4-----	5-----
6. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	1-----	2-----	3-----	4-----	5-----
7. I really care about the fate of this organization.	1-----	2-----	3-----	4-----	5-----
8. For me this is the best of all possible organization for which to work.	1-----	2-----	3-----	4-----	5-----
9. I would be very happy to spend the rest of my career in this organization.	1-----	2-----	3-----	4-----	5-----
10. I really feel as if this organization's problems are my own.	1-----	2-----	3-----	4-----	5-----
11. I do <u>not</u> feel a strong sense of belonging to my organization.	1-----	2-----	3-----	4-----	5-----
12. I do <u>not</u> feel emotionally attached to this organization.	1-----	2-----	3-----	4-----	5-----
13. I do <u>not</u> feel like part of the family at my organization.	1-----	2-----	3-----	4-----	5-----
14. This organization has a great deal of personal meaning for me.	1-----	2-----	3-----	4-----	5-----
15. Right now, staying with my organization is a matter of necessity as much as desire.	1-----	2-----	3-----	4-----	5-----
16. It would be very hard for me to leave my organization right now, even if I wanted to.	1-----	2-----	3-----	4-----	5-----
17. Too much of my life would be disrupted if I decided I wanted to leave my organization right now.	1-----	2-----	3-----	4-----	5-----
18. I feel that I have too few options to consider leaving this organization.	1-----	2-----	3-----	4-----	5-----
19. If I had not already put so much of myself into this organization, I might consider working elsewhere.	1-----	2-----	3-----	4-----	5-----
20. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.	1-----	2-----	3-----	4-----	5-----
21. I do <u>not</u> feel any obligation to remain with my current employer.	1-----	2-----	3-----	4-----	5-----
22. Even if it were to my advantage, I do <u>not</u> feel it would be right to leave my organization now.	1-----	2-----	3-----	4-----	5-----
23. I would feel guilty if I left my organization now	1-----	2-----	3-----	4-----	5-----
24. This organization deserves my loyalty.	1-----	2-----	3-----	4-----	5-----
25. I would not leave my organization right now because I have a sense of obligation to the people in it.	1-----	2-----	3-----	4-----	5-----
26. I owe a great deal to my organization	1-----	2-----	3-----	4-----	5-----

**Section 2:**

Listed below are a series of statements that represent possible feelings that individuals might have about the company for which they work. For each statement, please indicate (✓) the degree of your agreement with each statement:

	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
1. Even if I did the best job possible, the organization would fail to notice.	1-----	2-----	3-----	4-----	5-----
2. The organization cares about my general satisfaction at work.	1-----	2-----	3-----	4-----	5-----
3. The organization shows very little concern for me.	1-----	2-----	3-----	4-----	5-----
4. The organization strongly considers my goals and values.	1-----	2-----	3-----	4-----	5-----
5. The organization takes pride in my accomplishments at work..	1-----	2-----	3-----	4-----	5-----
6. The organization cares about my opinions.	1-----	2-----	3-----	4-----	5-----
7. Help is available from the organization when I have a problem.	1-----	2-----	3-----	4-----	5-----
8. The organization really cares about my well-being.	1-----	2-----	3-----	4-----	5-----

**Section 3:**

Listed below are a series of statements that concern fairness and your work experiences in this company. For each statement, please indicate (✓) the degree of your agreement with each statement:

	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
1. Job decisions are made by the general manager in an unbiased manner.	1-----	2-----	3-----	4-----	5-----
2. My general manager makes sure that all employee concerns are heard before job decisions are made.	1-----	2-----	3-----	4-----	5-----
3. To make job decisions, my general manager collects accurate and complete information.	1-----	2-----	3-----	4-----	5-----
4. My general manager clarifies decisions and provides additional information when requested by employees.	1-----	2-----	3-----	4-----	5-----
5. All job decisions are applied consistently across all affected employees.	1-----	2-----	3-----	4-----	5-----
6. Employees are allowed to challenge or appeal job decisions made by the general manager.	1-----	2-----	3-----	4-----	5-----
7. When decisions are made about my job, the general manager treats me with kindness and consideration.	1-----	2-----	3-----	4-----	5-----
8. When decisions are made about my job, the general manager treats me with respect and dignity.	1-----	2-----	3-----	4-----	5-----
9. When decisions are made about my job, the general manager shows concern for my rights as an employee.	1-----	2-----	3-----	4-----	5-----
10. Concerning decisions made about my job, the general manager discuss the implications of the decisions with me.	1-----	2-----	3-----	4-----	5-----
11. The general manager offers adequate justification for decisions made about my job.	1-----	2-----	3-----	4-----	5-----
12. When making decisions about my job, the general manager offers explanation that make sense to me.	1-----	2-----	3-----	4-----	5-----
13. My general manager explains very clearly any decision made about my job.	1-----	2-----	3-----	4-----	5-----
14. When decisions are made about my job, the general manager is sensitive to my personal needs.	1-----	2-----	3-----	4-----	5-----

**Section 4:**

Listed below are a series of statements that represent your feelings of job situation and your tendencies related with your organization. For each statement, please indicate (✓) the degree of your agreement with each statement:

	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
1. I feel that I have worked a lot of unpaid overtime here.	1-----2-----3-----4-----5				
2. I have ignored other attractive job opportunities to stay here.	1-----2-----3-----4-----5				
3. I have a lot of close friends at this place.	1-----2-----3-----4-----5				
4. All in all I have put a lot into working here.	1-----2-----3-----4-----5				
5. I would have to give up a lot if I left this place.	1-----2-----3-----4-----5				
6. Working here is just like any other job to me.	1-----2-----3-----4-----5				
7. Overall, I've made investments in this place which are important to me.	1-----2-----3-----4-----5				
8. Overall, it would be difficult to find an alternative job that is better than this one.	1-----2-----3-----4-----5				
9. There are very few other organizations I would rather work for.	1-----2-----3-----4-----5				

**Section 5:**

Listed below are a series of statements regarding your behavioral tendencies at your workplace. For each statement, please indicate how frequently you engage in that behavior by checking (✓) one of the five alternatives.

	Never	Rarely	Sometimes	Often	Always
1. I help other employees with their work when they have been absent.	1-----2-----3-----4-----5				
2. I exhibit punctuality in arriving at work on time in the morning and after lunch and breaks.	1-----2-----3-----4-----5				
3. I take undeserved work breaks.	1-----2-----3-----4-----5				
4. I take the initiative to orient new employees to the department even though it is not part of my job description.	1-----2-----3-----4-----5				
5. I help others when their work loads increase.	1-----2-----3-----4-----5				
6. I coast toward the end of the day.	1-----2-----3-----4-----5				
7. I give advance notice if unable to come to work.	1-----2-----3-----4-----5				
8. I spent a great deal of time in personal telephone conversation.	1-----2-----3-----4-----5				
9. I make innovative suggestions to improve the overall quality of the department.	1-----2-----3-----4-----5				
10. I willingly attend functions not required by the organization, but helps in its overall images.	1-----2-----3-----4-----5				
11. I volunteer to do things not formally required by the job.	1-----2-----3-----4-----5				

**Section 6:**

The following questions are intended to analyze the personal data. They will be used to make comparisons with other respondents. This information is strictly confidential. Please answer the following demographic information.

1. What is your age?	_____	years						
2. What is your gender?	_____	Male	_____	Female				
3. What is your present marital status?	_____	Single	_____	Married	_____	Separated	_____	Divorced
		_____	Widowed					
4. How long have you worked for your present company?	_____	Years	_____	Months				
5. What is the highest level of education completed?	_____	Less than high school	_____	High school				
	_____	Junior colleague	_____	Colleague graduate	_____	Master degree	_____	Doctoral Degree
6. What kind of organization do you work?								
7. I am working in a white-collar job	_____			a blue-collar job				
8. I am a union member	_____			not a union member				

**Thank you for your cooperation**

## 종업원의 직무태도 설문서

안녕하십니까?

본인은 미국 오하이오주에 위치한 켄트 주립대학에서 경영학 인사관리전공의 박사과정에 재학중인 정 진철입니다. 금번 저의 학교 인적자원관리 연구팀은 한국 종업원의 회사 혹은 조직몰입도를 평가하기 위한 연구를 시행하고 있으며 이를 위한 여러분의 의견을 묻고자 합니다. 또한 이 연구는 본인의 박사학위 논문을 위한 기초자료로서 사용되며, 이 논문의 결과는 한국의 대학이나 연구기관들이 추후 관련된 연구를 시도할 때 초석이 될 수 있다고 생각합니다. 저 자신의 학위논문의 목적만이 아니라 우리나라의 학문적인 발전에 보탬이 된다고 생각하시고 여러분의 바쁘신 시간을 할애해 주시면 고맙겠습니다.

다음의 설문항목들은 여러분이 몸담고 있는 회사나 조직에 대한 여러분의 태도와 업무상 경험하는 여러 사실에 대해 기술하고 있습니다. 이 연구의 목적은 미국 종업원의 조직몰입도와 관련된 변수들이 문화적으로 다른 한국의 종업원에게 적용시켰을 때 어떠한 차이가 존재하는지를 알아보기 위한 것이며, 연구를 통해 한국 종업원의 조직 몰입도를 평가하고 이를 위한 올바른 측정방법을 제공하게 됩니다. 모든 설문항목을 주의 깊게 읽고서 지시사항에 따라 여러분의 의견을 반영해 주십시오.

이 설문내용은 여러분이 소속되어 있는 회사와 전혀 관계가 없고 단지 학문적인 목적으로만 사용될 것이며, 또한 이 자료들은 즉시 통계처리를 위한 숫자로 변환되기 때문에 어느 누구도 여러분의 의향이나 의도를 알아낼 수 없습니다. 당연히 이들 자료들은 본인 이외에는 볼 수 없으며, 설문 응답에 대해서는 철저히 비밀에 부치겠습니다.

다시 한 번 여러분의 도움에 감사드리며, 설문내용에 의문이 있거나 연구결과에 관심이 있으신 분은 다음의 연락처로 연락주십시오.

감사드립니다.

정 진철

**정 진철:**

Jincheol Jung: 서울 강남구 개포동 연세 2차 204-703, 02-572-1567

Dept. of Administrative Science, Graduate School of Management, Kent State University, OH, 44242, (330) 672-2992, 전자우편: jjung2@aol.com

Dr. R. Foley: Dept. of Administrative Science, College of Business Administration, Kent State University, OH, 44242, (330) 672-2750 (ext. 340)

Dr. C. Dibrio: Dept. of Administrative Science, College of Business Administration, Kent State University, OH, 44242, (330) 672-2750 (ext. 362)



♣ 귀하의 회사에 대한 태도와 관련된 문항입니다. 귀하의 의견을 √ 표하여 주십시오.

	전혀 그렇지 않다	그렇지 않다	보통이다	그렇다	아주 그렇다
1. 회사의 성공에 도움이 되기 위해 나는 회사가 내게 기대하는 것 이상으로 기꺼이 많은 노력을 쏟는다.	①-----	②-----	③-----	④-----	⑤-----
2. 나는 남들에게 이 회사가 훌륭한 직장이라고 얘기한다.	①-----	②-----	③-----	④-----	⑤-----
3. 내 개인의 가치관과 회사의 가치관이 매우 비슷하다.	①-----	②-----	③-----	④-----	⑤-----
4. 나는 이 회사에 다닌다고 남들에게 자랑한다.	①-----	②-----	③-----	④-----	⑤-----
5. 회사는 내가 업무성과에 최대한 최선을 다하도록 고무시킨다.	①-----	②-----	③-----	④-----	⑤-----
6. 입사당시 내가 고려했던 다른 회사들 보다 이 회사를 선택한 것은 잘한 일이다.	①-----	②-----	③-----	④-----	⑤-----
7. 이 회사가 흥하고 망하고에 대해 매우 걱정한다.	①-----	②-----	③-----	④-----	⑤-----
8. 이 회사는 내가 일할 수 있는 직장중 가장 최선이다.	①-----	②-----	③-----	④-----	⑤-----
9. 나의 남은 생애를 이 직장에서 보낸다면 기쁠 것이다.	①-----	②-----	③-----	④-----	⑤-----
10. 나는 정말로 우리 회사의 문제를 내 문제처럼 느낀다.	①-----	②-----	③-----	④-----	⑤-----
11. 나는 우리 회사에서 강한 소속감을 느끼지 못하고 있다	①-----	②-----	③-----	④-----	⑤-----
12. 이 직장에 애착을 느끼지 못하고 있다	①-----	②-----	③-----	④-----	⑤-----
13. 나는 우리 회사에서 가족의 일부인 것처럼 느껴지지 않는다	①-----	②-----	③-----	④-----	⑤-----
14. 이 회사는 나에게 개인적으로 상당한 의미가 있다.	①-----	②-----	③-----	④-----	⑤-----
15. 지금 내가 이 회사에 있는 것은 내가 있기를 원하는 만큼이나 불가피하기 때문이다.	①-----	②-----	③-----	④-----	⑤-----
16. 내가 원한다고 해도, 지금 당장 이 회사를 떠나는 것은 매우 어려운 것이다.	①-----	②-----	③-----	④-----	⑤-----
17. 지금 이 회사를 떠나겠다고 결정하면 내 인생의 너무 많은 것이 혼란될 것이다.	①-----	②-----	③-----	④-----	⑤-----
18. 나는 선택의 여지가 거의 없기 때문에 이 회사를 떠나는 것을 고려할 수 없을 것 같다.	①-----	②-----	③-----	④-----	⑤-----
19. 만일 내가 이 회사를 위해 많은 노력을 기울여오지 않았다면, 아마 다른 데서 일하는 것을 고려할 것이다.	①-----	②-----	③-----	④-----	⑤-----
20. 이 회사를 떠날 경우에 생기는 문제 중의 하나는 할 만한 다른 일거리가 별로 없다는 것이다.	①-----	②-----	③-----	④-----	⑤-----
21. 나는 현 직장에서 계속 근무해야 한다는 어떤 의무감도 느끼지 않는다.	①-----	②-----	③-----	④-----	⑤-----
22. 지금 이 회사를 떠나는 것이 나에게 이로울지라도, 그렇게 하는 것이 옳다고 느껴지지 않는다.	①-----	②-----	③-----	④-----	⑤-----
23. 내가 지금 이 회사를 떠난다면 나는 죄책감을 느낄 것이다.	①-----	②-----	③-----	④-----	⑤-----
24. 이 회사는 내가 충성을 바칠만하다.	①-----	②-----	③-----	④-----	⑤-----
25. 나는 우리 회사 사람들에 대한 의무감이 있기 때문에 지금 당장 이 직장을 떠나지는 않을 것이다.	①-----	②-----	③-----	④-----	⑤-----
26. 나는 우리 회사에 많은 신세를 지고 있다.	①-----	②-----	③-----	④-----	⑤-----

♣ 귀하의 회사는 귀하에 대해 얼마나 생각하고 있습니까?

	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	아주 그렇다
1. 내가 가능한 최상의 업무를 달성해도 회사는 이를 알아주지 못한다.	①-----	②-----	③-----	④-----	⑤-----
2. 이 회사는 나의 일반적인 만족여부에 관심을 보인다.	①-----	②-----	③-----	④-----	⑤-----
3. 회사는 나에게 대해 그다지 관심을 보이지 않는다.	①-----	②-----	③-----	④-----	⑤-----
4. 회사는 나의 목표와 가치를 상당히 고려한다.	①-----	②-----	③-----	④-----	⑤-----
5. 회사는 내가 달성한 성과나 성취도에 대해 자랑스러워 한다.	①-----	②-----	③-----	④-----	⑤-----
6. 회사는 나의 의견에 대해 관심을 보인다.	①-----	②-----	③-----	④-----	⑤-----
7. 내가 어려운 일이 생기면 회사로부터 도움을 받을 수 있다.	①-----	②-----	③-----	④-----	⑤-----
8. 회사는 나의 발전과 안녕에 대해 관심을 보인다.	①-----	②-----	③-----	④-----	⑤-----

♣ 평가제도, 보상 및 기타 인적자원관리의 공정성과 관련된 문항입니다. 귀하의 의견을 √ 표하여 주십시오.

	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	아주 그렇다
1. 부서의 총책임자는 편견없이 업무에 관한 의사결정을 내린다.	①-----	②-----	③-----	④-----	⑤-----
2. 부서의 총책임자는 종업원의 업무와 관련된 의사결정 내리기 전에 모든 직원들의 관심사를 배려한다.	①-----	②-----	③-----	④-----	⑤-----
3. 부서의 총책임자는 정확하고 철저한 자료에 기초하여 종업원의 업무에 관한 의사결정을 한다.	①-----	②-----	③-----	④-----	⑤-----
4. 부서의 총책임자는 직원들의 업무와 관련된 결정에 대해 직원들에게 명확하게 알려주고 직원들이 더욱 알고 싶어하면 추가로 상세히 알려준다.	①-----	②-----	③-----	④-----	⑤-----
5. 업무에 관한 의사결정은 이에 영향받는 모든 직원들에게 일관성있게 적용된다.	①-----	②-----	③-----	④-----	⑤-----
6. 부서의 총책임자가 내린 의사결정에 대해 직원들은 의문점이나 이의를 제기할 수 있다.	①-----	②-----	③-----	④-----	⑤-----
7. 나에게 관한 업무결정 내릴 때 부서의 총책임자는 나에게 자상하게 대한다.	①-----	②-----	③-----	④-----	⑤-----
8. 나에게 관한 업무결정 내릴 때 부서의 총책임자는 나를 인격적으로 대한다.	①-----	②-----	③-----	④-----	⑤-----

	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	아주 그렇다
9. 나에게 관한 업무결정 내릴 때 부서의 총책임자는 직원으로서의 내 권리를 배려한다.	①-----	②-----	③-----	④-----	⑤-----
10. 나와 관련된 업무결정 내릴 때 부서의 총책임자는 이 결정이 시사하는 바를 나와 의논한다.	①-----	②-----	③-----	④-----	⑤-----
11. 부서의 총책임자는 내 업무와 관련된 의사결정에 대해 적절한 타당성을 제시한다.	①-----	②-----	③-----	④-----	⑤-----
12. 내 업무와 관련된 의사결정 내릴 때 부서의 총책임자는 내가 납득할 수 있게끔 설명해 준다.	①-----	②-----	③-----	④-----	⑤-----
13. 부서의 총책임자는 내 업무에 관한 의사결정에 대해 매우 정확하게 설명해 준다.	①-----	②-----	③-----	④-----	⑤-----
14. 내 업무에 관한 의사결정 내릴 때 부서의 총책임자는 내가 개인적으로 원하는 바를 반영한다.	①-----	②-----	③-----	④-----	⑤-----

♣ 회사와 관련되어 여러 상황이나 귀하의 성향에 관련된 문항입니다. 귀하의 의견을 √로 표시하여 주십시오.

	전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	아주 그렇다
1. 나는 초과근무 수당을 받지 않고 많은 시간을 일했다	①-----	②-----	③-----	④-----	⑤-----
2. 이 직장에 근무하기 위해 다른 좋은 직장들을 포기 하였다.	①-----	②-----	③-----	④-----	⑤-----
3. 이 직장에서 친해진 친구들이 많다.	①-----	②-----	③-----	④-----	⑤-----
4. 이 직장에서 근무하는 동안 많은 노력을 기울였다.	①-----	②-----	③-----	④-----	⑤-----
5. 만약 이 회사를 떠나게 되면 나는 많은 것을 잃게 될 것이다.	①-----	②-----	③-----	④-----	⑤-----
6. 여기에서 일하나 다른 직장에서 일하나 차이가 없다.	①-----	②-----	③-----	④-----	⑤-----
7. 전반적으로 이곳에서 근무하는 동안 나에게 중요한 많은 투자를 하였다.	①-----	②-----	③-----	④-----	⑤-----
8. 전반적으로 이 직장보다 더 좋은 직장을 구하기는 어려울 것이다.	①-----	②-----	③-----	④-----	⑤-----
9. 이곳이 아니면 일할 수 있는 다른 직장이 없다.	①-----	②-----	③-----	④-----	⑤-----

♣ 회사에서 귀하의 행동과 관련된 문항입니다. 귀하의 의견을 √ 표 하여 주십시오.

	전혀 그런일 없다	별로 그런일 없다	간혹 그런일 있다	자주 그런일 있다	항상 그런일 한다
1. 다른 직원이 걸근하면 그의 남은 일을 도와준다.	①-----	②-----	③-----	④-----	⑤-----
2. 나는 출근시간 늦지않고 점심식사나 휴식시간 이후 정시에 업무에 복귀한다.	①-----	②-----	③-----	④-----	⑤-----
3. 나는 근무시간중에 불필요한 휴식시간 갖는다.	①-----	②-----	③-----	④-----	⑤-----
4. 내 업무사항이 아니더라도 우리 부서에 새로 온 직원들의 기본적인 업무파악을 도와준다.	①-----	②-----	③-----	④-----	⑤-----
5. 다른 직원의 업무가 과중하다 생각되면 나는 자발적으로 그를 도운다.	①-----	②-----	③-----	④-----	⑤-----
6. 퇴근시간이 다가오면 다른 특별한 일을 하지 않고 일과가 끝나기만 기다린다.	①-----	②-----	③-----	④-----	⑤-----
7. 만약 회사에 나올 수 없으면 미리 회사에 연락한다.	①-----	②-----	③-----	④-----	⑤-----
8. 사적인 전화로 직장에서 시간을 많이 보낸다.	①-----	②-----	③-----	④-----	⑤-----
9. 부서의 전반적인 질을 향상시키기 위하여 창의적인 제안을 한다.	①-----	②-----	③-----	④-----	⑤-----
10. 회사가 요구하지 않더라도 회사의 전체 이미지를 높일 수 있다면 그 역할을 기꺼이 한다.	①-----	②-----	③-----	④-----	⑤-----
11. 공식적으로 내게 요구되지 않는 업무이지만 필요하면 자발적으로 한다.	①-----	②-----	③-----	④-----	⑤-----

♣ 다음은 귀하에 대한 개인적인 자료입니다. 이 자료는 연구를 위한 통계자료로 사용되며 모든 내용은 철저히 비밀에 부치겠습니다. 솔직한 응답 부탁드립니다.

1. 귀하의 연세는? 만 _____ 세
2. 귀하의 성별은? _____ 남 _____ 여
3. 현재의 혼인상태는? _____ 미혼 _____ 결혼 _____ 별거 _____ 이혼 _____ 사별
4. 현 직장에서 몇 년간 근무하셨습니다? _____ 년 _____ 개월
5. 귀하의 최종학력은? _____ 고졸이하 _____ 고졸 _____ 2년제대학 _____ 대학졸 _____ 석사 _____ 박사
6. 회사의 업종은? _____
7. 회사에서의 직책은 _____
8. 본인은 _____ 사무직 _____ 생산직에 근무한다.
9. 본인은 노조의 _____ 구성원이다 _____ 구성원이 아니다.

♣♣ 오랜 시간동안 성심성의껏 답해 주신데 대해 진심으로 감사드립니다. 이들 자료들은 학문적인 연구 자료로서만 이용될 것이며, 익명으로 처리되기 때문에 어느 누구도 귀하의 견해를 알 수 없습니다. 다시 한 번 감사드리며 연구결과에 관심이 있으신 분은 연구자의 연락처로 연락주십시오. 감사합니다.

**APPENDIX C**  
**DEMOGRAPHIC INFORMATION**

**DEMOGRAPHIC CHARACTERISTICS OF TYPE-A QUESTIONNAIRE**

<b>Demographic</b>	<b>Distributions(n =345)</b>	<b>Mean/Med.</b>	<b>Std. Dev.</b>	<b>Range</b>
<b>Age</b>		<b>33.2 / 32.0</b>	<b>8.65</b>	<b>19-68 Years</b>
<b>Gender</b>	<b>Male: 244 (70.7%) Female: 101 (29.3%)</b>			
<b>Married</b>	<b>Single: 130 (37.7%) Married: 215 (62.3%)</b>			
<b>Tenure</b>		<b>8.31 / 6.5</b>	<b>7.47</b>	<b>0.1-41Years</b>
<b>Education</b>	<b>Below H.S.:3(0.9%) H.S.:73(21.2%) J. College: 33 (9.6%) College: 202(58.6%) Graduate: 34(9.9%)</b>			
<b>Union</b>	<b>Member: 96(27.8%) Non-Member: 249(72.2%)</b>			
<b>White/Blue</b>	<b>White Collar: 338 (98.0%) Blue Collar: 7 (2.0%)</b>			
<b>Organization Type</b>	<b>Advertising: 117(33.9%) Transport: 48(13.9%) Tire: 27(7.8%) Public: 59(17.1%) Financial: 62(18.0%) University: 32(9.3%)</b>			

Notes: H.S.: High School Graduate;  
J. College: Junior College

**DEMOGRAPHIC CHARACTERISTICS OF TYPE-B QUESTIONNAIRE**

<b>Demographic</b>	<b>Distributions(n=328)</b>	<b>Mean/Med.</b>	<b>Std. Dev.</b>	<b>Range</b>
<b>Age</b>		<b>33.5 / 32.0</b>	<b>7.87</b>	<b>19-62 Years</b>
<b>Gender</b>	<b>Male: 246 (75.0%) Female: 82 (25.0%)</b>			
<b>Married</b>	<b>Single: 113 (34.5%) Married: 211 (64.3%) Separated: 2 (0.6%) Divorced: 2 (0.6%)</b>			
<b>Tenure</b>		<b>8.29 / 6.3</b>	<b>7.29</b>	<b>0.1-40 Years</b>
<b>Education</b>	<b>Below H.S.:7(2.1%) H.S.:80 (24.4%) J. College: 22 (6.7%) College: 189 (57.6%) Graduate: 30 (9.1%)</b>			
<b>Union</b>	<b>Member:102 (31.1%) Non-Member: 226 (68.9%)</b>			
<b>White/Blue</b>	<b>White Collar: 311 (94.8%) Blue Collar: 17 (5.2%)</b>			
<b>Organization Type</b>	<b>Advertising: 54 (16.5%) Transport: 67(20.4%) Tire: 30 (9.1%) Public: 75 (22.9%) Financial: 95 (29.0%) University: 7 (2.1%)</b>			

Notes: H.S.: High School Graduate;  
J. College: Junior College

**DEMOGRAPHIC CHARACTERISTICS OF TYPE-C QUESTIONNAIRE**

<b>Demographic</b>	<b>Distributions(n=380)</b>	<b>Mean/Med.</b>	<b>Std. Dev.</b>	<b>Range</b>
<b>Age</b>		<b>32.9 / 31.0</b>	<b>7.84</b>	<b>18-62 Years</b>
<b>Gender</b>	<b>Male: 271 (71.3%) Female: 109 (28.7%)</b>			
<b>Married</b>	<b>Single: 145 (38.2%) Married: 232 (61.1%) Separated: 1 (0.3%) Divorced: 2 (0.5%)</b>			
<b>Tenure</b>		<b>8.03 / 6.0</b>	<b>6.74</b>	<b>0.1-41.8Years</b>
<b>Education</b>	<b>Below H.S.:2(0.5%) H.S.:98 (25.8%) J. College: 33 (8.7%) College: 201 (52.9%) Graduate: 46 (12.1%)</b>			
<b>Union</b>	<b>Member: 112 (29.5%) Non-Member: 268 (70.5%)</b>			
<b>White/Blue</b>	<b>White Collar: 371 (97.6%) Blue Collar: 9 (2.4%)</b>			
<b>Organization Type</b>	<b>Advertising: 56 (14.7%) Transport: 73 (19.2%) Tire: 34 (8.9%) Public: 73 (19.2%) Financial: 80 (21.1%) University: 64 (16.8%)</b>			

Notes: H.S.: High School Graduate;  
J. College: Junior College



**APPENDIX D**  
**TYPE-A, B, & C QUESTIONNAIRE DATA**

**Table D1**  
**Univariate Normality Statistics (Skewness/Kurtosis)**

Variables	Type A	Type B	Type C
AC1	-.10/-.59	-.12/-.47	-.03/-.77
AC2	-.58/.00	-.24/-.14	-.32/-.19
AC3	-.09/-.86	-.31/-.37	-.38/.16
AC4	-.09/-.81	-.39/-.003	-.65/.42
AC5	-.10/-.76	-.15/-.31	-.38/.05
AC6	-.16/-.72	-.61/.05	-.31/-.15
CC1	.09/-.22	-.18/-.65	-.06/-.62
CC2	-.32/-.30	-.52/-.51	-.26/-.57
CC3	-.21/-.56	-.33/-.46	.10/-.62
CC4	.07/-.48	.08/-.81	-.003/-.67
CC5	-.26/-.07	-.40/-.33	-.18/-.26
CC6	-.43/-.41	-.23/-.72	-.30/-.84
NC1	-.34/-.29	-.31/-.40	-.08/-.58
NC2	-.19/-.54	-.33/-.65	-.25/-.60
NC3	-.03/-.50	.39/-.39	.37/-.36
NC4	-.22/-.41	-.26/-.14	-.10/.14
NC5	-.35/-.64	-.57/-.01	-.58/-.03
NC6	.02/-.42	-.05/-.14	.06/-.36

Notes: AC: Affective Commitment; CC: Continuance Commitment; NC: Normative Commitment.

**Table D2**  
**Internal Consistency Reliability of OC Scales**

	Type A (N= 345)	Type B (N=328)	Type C (N=380)
ACS	$\alpha = .62$	$\alpha = .83$	$\alpha = .83$
CCS	$\alpha = .76$	$\alpha = .55$	$\alpha = .50$
NCS	$\alpha = .82$	$\alpha = .75$	$\alpha = .78$

**Table D3**  
**Overall Fit Indices for Competing Models OF 3-OC**  
**(Based on Three Different Questionnaires)**

Model	NFI	NNFI	CFI	$\chi^2$ (df)
<b><u>TYPE A</u></b>				
Null	NA	NA	NA	2332.34 (153)
Model 2	.794	.820	.841	480.45 (135)
Model 3	.666	.665	.704	779.74 (135)
Model 4	.794	.819	.841	479.46 (134)
Model 5	.666	.665	.704	779.74(135)
Model 6	.794	.819	.841	479.46(134)
Model 7	.611	.598	.646	907.13(135)
Model 8	.794	.819	.841	480.38(134)
Model 9	.566	.532	.587	1035.71 (135)
Model10	.812	.837	.859	439.10 (132)
<b><u>TYPE B</u></b>				
Null	NA	NA	NA	2031.29(153)
Model 2	.779	.811	.833	448.74(135)
Model 3	.640	.641	.683	730.34(135)
Model 4	.783	.813	.837	440.99(134)
Model 5	.640	.641	.683	730.34(135)
Model 6	.783	.813	.837	440.99(134)
Model 7	.598	.589	.637	815.90(135)
Model 8	.779	.809	.833	448.58(134)
Model 9	.579	.565	.617	855.16(135)
Model10	.805	.838	.860	395.15(132)
<b><u>TYPE C</u></b>				
Null	NA	NA	NA	2329.52(152)
Model2	.773	.795	.819	529.25(135)
Model3	.655	.652	.693	803.84(135)
Model4	.785	.808	.832	499.86(134)
Model5	.655	.652	.693	499.85(134)
Model6	.785	.808	.832	504.97(134)
Model7	.626	.617	.662	871.40(135)
Model8	.777	.798	.823	519.65(134)
Model 9	.623	.614	.659	877.19(135)
Model10	.801	.823	.847	464.72(132)

Notes: NA = not applicable. NFI = Normed Fit Index, NNFI = Nonnormed Fit Index, CFI = Comparative Fit Index.

**Table D4**  
**Factor Loadings of 3-OC variables**

<b>Loadings</b>	<b>Type-A</b>	<b>Type-B</b>	<b>Type-C</b>
AC1	.795	.754	.606
AC2	.468	.610	.623
AC3	.235	.675	.776
AC4	.095	.710	.772
AC5	.327	.681	.702
AC6	.522	.604	.640
CC1	.447	.457	<u>.062</u>
CC2	.728	.178	.213
CC3	.464	.696	.818
CC4	.563	.682	.488
CC5	.649	<u>.103</u>	<u>.086</u>
CC6	.705	.311	.300
NC1	.643	.670	.672
NC2	.677	.456	.503
NC3	.741	.436	.515
NC4	.791	.760	.735
NC5	.393	.568	.635
NC6	.736	.579	.639

Notes: All standardized factor loadings are significant (p<.05) except underlined.

**Table D5**  
**Means and Standard Deviations of AC3, AC4, & AC5**

	<b>Type-A Mean/SD</b>	<b>Type-B Mean/SD</b>	<b>Type-C Mean/SD</b>
AC3	3.159/.912	3.393/.932	3.347/.860
AC4	3.107/.966	3.534/.874	3.503/.897
AC5	3.055/.896	3.384/.874	3.326/.865

**Table D6**  
**Average Variance Extracted Estimates**

	<b>TYPE-A</b>	<b>TYPE-B</b>	<b>TYPE-C</b>
AC	.216	.455	.476
CC	.351	.227	.186
NC	.458	.348	.387

**Table D7**  
**Type A Means, Standard Deviations, and Correlations**  
(n = 345)

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. OCQ	3.22	<u>.48</u>	71												
2. AC	3.24	<u>.55</u>	71	62											
3. CC	3.30	<u>.60</u>	56	52	76										
4. NC	3.31	<u>.66</u>	66	65	74	82									
5. OS	2.96	<u>.56</u>	50	39	45	47	86								
6. PJ	3.20	<u>.58</u>	43	34	41	33	54	91							
7. PJ1	3.17	<u>.58</u>	38	32	37	29	49	93	78						
8. PJ2	3.23	<u>.61</u>	43	34	41	33	54	97	84	87					
9. AT	2.94	<u>.76</u>	40	42	48	45	28	22	23	20	59				
10. SB	3.51	<u>.49</u>	45	41	51	47	30	30	27	26	30	63			
11. OCB	3.62	<u>.47</u>	42	35	32	39	22	33	29	34	08	42	78		
12. OCB1	3.34	<u>.55</u>	48	41	31	41	29	32	27	33	15	42	86	76	
13. OCB2	3.94	<u>.57</u>	21	16	22	23	07	23	21	23	03	26	82	42	63

*Notes:* AC: Affective Commitment; CC: Continuance Commitment; NC: Normative Commitment; OS: Perceived Organizational Support; PJ: Perceived Organizational Justice; PJ1: Fair Procedure Justice; PJ2: Interactional Justice; AT: Perceived Lack of Job Alternatives; SB: Perceived Sidebets; OCB: Organizational Citizenship Behavior; OCB1: Altruism; OCB2: Conscientiousness. Reliabilities are presented in the diagonal. All correlations are significant ( $p < .001$ ) except underlined; Decimal points are omitted.

**Table D8**  
**Type B Means, Standard Deviations, and Correlations**  
(n = 328)

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. OCQ	3.33	<u>.58</u>	83												
2. AC	3.44	<u>.65</u>	79	83											
3. CC	3.15	<u>.51</u>	46	43	54										
4. NC	3.11	<u>.61</u>	74	75	53	76									
5. OS	3.03	<u>.55</u>	61	58	28	57	86								
6. PJ	3.22	<u>.59</u>	45	47	25	43	51	93							
7. PJ1	3.19	<u>.61</u>	41	42	22	40	46	94	85						
8. PJ2	3.25	<u>.62</u>	45	48	25	44	51	97	82	90					
9. AT	2.97	<u>.74</u>	46	39	44	42	33	23	21	22	60				
10. SB	3.48	<u>.54</u>	61	61	35	49	41	36	30	37	33	70			
11. OCB	3.64	<u>.49</u>	45	43	21	32	283	30	24	32	06	50	76		
12. OCB1	3.41	<u>.56</u>	43	40	20	35	2	31	23	34	06	46	85	76	
13. OCB2	3.92	<u>.61</u>	32	32	15	18	15	20	17	20	04	37	82	41	62

*Notes:* AC: Affective Commitment; CC: Continuance Commitment; NC: Normative Commitment; Perceived Organizational Support; PJ: Perceived Organizational Justice; PJ1: Fair Procedure Justice; PJ2: Interactional Justice; AT: Perceived Lack of Job Alternatives; SB: Perceived Sidebets; CM: Commitment Norms; OCB: Organizational Citizenship Behavior; OCB1: Altruism; OCB2: Conscientiousness. Reliabilities are presented in the diagonal. All correlations are significant ( $p < .001$ ) except underlined. Decimal points are omitted.

**Table D9**  
**Type C Means, Standard Deviations, and Correlations**  
(n = 380)

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. OCQ	3.26	.58	<b>84</b>												
2. AC	3.36	.65	<b>82</b>	<b>83</b>											
3. CC	3.06	.50	<b>20</b>	<b>25</b>	<b>54</b>										
4. NC	3.00	.62	<b>66</b>	<b>73</b>	<b>35</b>	<b>78</b>									
5. OS	3.00	.53	<b>51</b>	<b>50</b>	<u><b>07</b></u>	<b>51</b>	<b>84</b>								
6. PJ	3.22	.58	<b>44</b>	<b>41</b>	<u><b>03</b></u>	<b>31</b>	<b>51</b>	<b>92</b>							
7. PJ1	3.18	.62	<b>45</b>	<b>39</b>	<u><b>03</b></u>	<b>31</b>	<b>48</b>	<b>94</b>	<b>82</b>						
8. PJ2	3.25	.60	<b>40</b>	<b>40</b>	<u><b>04</b></u>	<b>28</b>	<b>50</b>	<b>96</b>	<b>82</b>	<b>89</b>					
9. AT	2.96	.76	<b>42</b>	<b>39</b>	<b>41</b>	<b>41</b>	<b>26</b>	<b>11</b>	<b>13</b>	<b>09</b>	<b>56</b>				
10. SB	3.50	.51	<b>53</b>	<b>58</b>	<b>26</b>	<b>47</b>	<b>33</b>	<b>271</b>	<b>22</b>	<b>29</b>	<b>37</b>	<b>65</b>			
11. OCB	3.60	.44	<b>32</b>	<b>42</b>	<b>12</b>	<b>29</b>	<b>23</b>	<b>9</b>	<b>15</b>	<b>20</b>	<u><b>06</b></u>	<b>40</b>	<b>72</b>		
12. OCB1	3.30	.53	<b>35</b>	<b>44</b>	<b>16</b>	<b>35</b>	<b>27</b>	<b>20</b>	<b>16</b>	<b>20</b>	<u><b>08</b></u>	<b>42</b>	<b>85</b>	<b>72</b>	
13. OCB2	3.93	.55	<b>16</b>	<b>24</b>	<b>03</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>08</b>	<b>12</b>	<b>01</b>	<b>23</b>	<b>79</b>	<b>35</b>	<b>56</b>

Notes: AC: Affective Commitment; CC: Continuance Commitment; NC: Normative Commitment; OS: Perceived Organizational Support; PJ: Perceived Organizational Justice; PJ1: Fair Procedure Justice; PJ2: Interactional Justice; AT: Perceived Lack of Job Alternatives; SB: Perceived Sidebets; OCB: Organizational Citizenship Behavior; OCB1: Altruism; OCB2: Conscientiousness. Reliabilities are presented in the diagonal. All correlations are significant ( $p < .001$ ) except underlined. Decimal points are omitted.

**Table D10**  
**Hypotheses and Correlation Results**

Hypotheses	TYPE-A	TYPE-B	TYPE-C
1 <sub>c</sub> : AC-NC (+)	(+), $r = .66$	(+), $r = .75$	(+), $r = .73$
2 <sub>a</sub> : AC-POS (+)	(+), $r = .39$	(+), $r = .58$	(+), $r = .50$
NC-POS (+)	(+), $r = .47$	(+), $r = .57$	(+), $r = .51$
CC-POS (NS)	(+), $r = .45$	(+), $r = .28$	NS
2 <sub>b</sub> : AC-PJ (+)	(+), $r = .34$	(+), $r = .47$	(+), $r = .41$
NC-PJ (+)	(+), $r = .33$	(+), $r = .43$	(+), $r = .31$
CC-PJ (NS)	(+), $r = .41$	(+), $r = .25$	NS
2 <sub>c</sub> : CC-SB (+)	(+), $r = .51$	(+), $r = .35$	(+), $r = .26$
2 <sub>d</sub> : CC-AT (+)	(+), $r = .42$	(+), $r = .44$	(+), $r = .41$
2 <sub>e</sub> : AC-OCB (+)	(+), $r = .35$	(+), $r = .43$	(+), $r = .42$
NC-OCB (+)	(+), $r = .39$	(+), $r = .32$	(+), $r = .29$
CC-OCB (NS)	(+), $r = .32$	(+), $r = .21$	(+), $r = .12$

**APPENDIX E**  
**QUESTIONNAIRE FOR CONTENT ACCURACY ASSESSMENT**  
**OF THE 3-OC SCALES**

## **Organizational Commitment Questionnaire**

Organizational commitment is defined as a bond between employees and their organization that decreases the likelihood employees will voluntarily leave their organization. This bond generally involves three different types of organizational commitment: affective, continuance, and normative commitment.

**Affective Commitment** refers to the bond between employees and their organization that results from employee identification with, involvement in, and emotional attachment to their organization. For example, employees with strong affective commitment remain with their organization because they feel a sense of loyalty to their organization. Thus, employees with strong affective commitment are more likely to remain with their organization because they want to.

**Continuance Commitment** refers to the bond between employees and their organization that is based on the employees' assessment of the financial and psychological costs associated with leaving the organization. For example, employees with strong continuance commitment remain with their organization because they either can't find another job or they don't want to lose the friendships they've established with other employees. Thus, employees with strong continuance commitment are more likely to remain with their organization because they feel they need to.

**Normative Commitment** refers to the bond between employees and their organization that is based on the employees' sense of obligation to their organization. For example, employees with strong normative commitment consider it morally right to remain with their organization. Thus, employees with strong normative commitment are more likely to remain with their organization because they feel they ought to.

### **How to complete this questionnaire:**

You will be asked to decide whether each of 18 statements refers to affective, continuance, or normative organizational commitment, or none of the three. Moreover, if you decide a statement refers to affective, continuance, or normative commitment, you will be asked to indicate the degree to which the statement reflects that type of organizational commitment.

If you decide the statement refers to affective, continuance, or normative commitment, enter in the appropriate box the degree to which the statement reflects that type of commitment (you can enter a number for ONLY ONE box per statement). Use the following scale:

**5 = the statement reflects the type of commitment to a very high degree**

**4 = the statement reflects the type of commitment to a high degree**

**3 = the statement reflects the type of commitment to a moderate degree**

**2 = the statement reflects the type of commitment to a low degree**

**1 = the statement reflects the type of commitment to a very low degree**



If you decide the statement does NOT refer to any of the three types of organizational commitment, put a checkmark (✓) in the “None” box. For example, consider the following statement:

“I tell all my friends how happy I am working for this organization.”

If you decide this statement refers to affective commitment and that the statement reflects affective commitment to a high degree, you would put a “4” in the “Affective” box. On the other hand, you would put a checkmark (✓) in the “None” box if you decide this statement does not refer to any of the three types of organizational commitment.

**Please review at any time the definitions of affective, continuance, and normative commitment and/or the rating scale contained on the first page of the questionnaire.**

Statements	Affective	Continuance	Normative	None
I would be very happy to spend the rest of my career in this organization.				
I do not feel any obligation to remain with current employer.				
It would be very hard for me to leave the organization right now, even if I wanted to.				
Even if it were to my advantage, I do not feel it would be right to leave my organization now.				
I feel a strong sense of belonging to my organization.				
One of the few negative consequences of leaving this organization would be the scarcity of available alternative				
I do not feel “emotionally attached” to this organization.				
I owe a great deal to my organization.				